

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM 20-F

(Mark One)

- REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934  
OR  
 ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended December 31, 2019.  
OR  
 TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the transition period from \_\_\_\_\_ to \_\_\_\_\_  
OR  
 SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
Date of event requiring this shell company report \_\_\_\_\_

Commission file number: 001-38313

**iClick Interactive Asia Group Limited**

(Exact name of Registrant as specified in its charter)

N/A

(Translation of Registrant's name into English)

Cayman Islands

(Jurisdiction of incorporation or organization)

15/F

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15/F

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(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person) Securities registered or to be registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol	Name of each exchange on which registered
American Depositary Shares, two representing one Class A ordinary share, par value US\$0.001 per share*	ICLK	NASDAQ Global Market

\*Not for trading, but only in connection with the listing on the Nasdaq Global Market of American depositary shares.

Securities registered or to be registered pursuant to Section 12(g) of the Act:

None

(Title of Class)

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:

None

(Title of Class)

Indicate the number of outstanding shares of each of the Issuer's classes of capital or common stock as of the close of the period covered by the annual report.

As of December 31, 2019, there were 30,395,051 ordinary shares outstanding, par value \$0.001 per share, being the sum of 25,574,443 Class A ordinary shares<sup>†</sup> and 4,820,608 Class B ordinary shares.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes  No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

Yes  No

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes  No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes  No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act.

Large accelerated filer  Accelerated filer  Non-accelerated filer  Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards<sup>††</sup> provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP  International Financial Reporting Standards as issued by the International Accounting Standards Board  Other

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

Item 17  Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes  No

(APPLICABLE ONLY TO ISSUERS INVOLVED IN BANKRUPTCY PROCEEDINGS DURING THE PAST FIVE YEARS)

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Sections 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court.

Yes  No

<sup>†</sup> Of the 25,574,443 Class A ordinary shares as of December 31, 2019, (i) 1,472,480 were held by Arda Holdings Limited underlying the options granted but not yet exercised (whether or not they are vested) and the options reserved for issuance under our 2018 Share Incentive Plan, and (ii) 231,936 were held by JPMorgan Chase Bank N.A., our depository, underlying the unvested restricted share units under our Post-IPO Plan.

<sup>††</sup> The term "new or revised financial accounting standard" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

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## CONVENTIONS THAT APPLY TO THIS ANNUAL REPORT

Unless otherwise indicated and except where the context otherwise requires, references in this annual report to:

- “active profiled user” refers to a profiled user whom we are able to detect that he/she has online activities during a specific measurement period. A “profiled user” refers to a user whom we have collected sufficient information from his/her online activities to establish a descriptive understanding of the person;
- “ADSs” refers to our American depository shares. Two ADSs represent one Class A ordinary share;
- “China” or “PRC” refers to the People’s Republic of China, excluding, for the purposes of this annual report only, Hong Kong, Macau and Taiwan;
- “direct marketer clients” refers to marketers that have direct contractual relationship with us;
- “end marketers,” or “marketers” refers to marketers that we serve, either directly or through marketing agencies, regardless if they have direct contractual relationship with us;
- “HK\$” or “Hong Kong dollars” refers to the legal currency of Hong Kong;
- “independent online marketing technology platforms” refers to online marketing technology platforms (i) which are not owned by any group which owns online publishing resources, or (ii) which do not own any online publishing resources;
- “marketing solutions” refers to mobile marketing solutions and other marketing solutions;
- mobile apps or websites “covered” refers to the mobile apps or websites from which we are able to receive data to build user profiles;
- “multinational companies” refer to companies that own or control production of goods or provision of services in one or more countries other than their home countries;
- “online marketing technology platforms” refers to online marketing platforms which, through a combination of marketing strategies and technologies, assist marketers in optimizing their marketing resources;
- “ordinary shares” refer to our Class A and Class B ordinary shares, par value US\$0.001 per share;
- “our clients” refers to entities which enter into sales contracts with us and incur spending during the relevant period;
- “RMB” or “Renminbi” refers to the legal currency of China;
- “we,” “us,” “our company” and “our” refer to iClick Interactive Asia Group Limited; and
- “\$,” “US\$,” “dollars” or “U.S. dollars” refers to the legal currency of the United States.

Our financial statements are expressed in the U.S. dollar, which is our reporting currency. Certain of our financial data in this annual report on Form 20-F are translated into U.S. dollars solely for the reader’s convenience. Unless otherwise noted, all convenience translations from Renminbi to U.S. dollars, and from Hong Kong dollars to U.S. dollars, in this annual report on Form 20-F were made at a rate of RMB6.9618 to US\$1.00, and HKD7.7894 to US\$1.00, respectively, which were the exchange rates set forth in the H.10 statistical release of the Board of Governors of the Federal Reserve System on December 31, 2019. We make no representation that any Renminbi/ Hong Kong dollar or U.S. dollar amounts could have been, or could be, converted into U.S. dollars or Renminbi/ Hong Kong dollar, as the case may be, at any particular rate, at the respective rate stated above, or at all. Any discrepancies in any table between the amounts identified as total amounts and the sum of the amounts listed therein are due to rounding.

## FORWARD-LOOKING STATEMENTS

This annual report on Form 20-F contains forward-looking statements that relate to our current expectations and views of future events. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from those expressed or implied by the forward-looking statements. These statements are made under the “safe harbor” provisions of the U.S. Private Securities Litigations Reform Act of 1995.

You can identify some of these forward-looking statements by words or phrases such as “may,” “will,” “expect,” “anticipate,” “aim,” “estimate,” “intend,” “plan,” “believe,” “is/are likely to,” “potential,” “continue” or other similar expressions. We have based these forward-looking statements largely on our current expectations and projections about future events that we believe may affect our financial condition, results of operations, business strategy and financial needs. These forward-looking statements include statements relating to:

- our goals and strategies;
- our ability to maintain and enhance our mobile capabilities;
- our future business development, financial condition and results of operations;
- the expected growth of online marketing industry, including online marketing technology industry in China;
- our expectations regarding demand for and market acceptance of our products and services, including online marketing technology and enterprise solutions;
- our expectations regarding our clients and other marketers and marketing agencies;
- our ability to integrate and realize synergies from acquisitions and investments;
- our plans to invest in our platform, solutions, data analytics capabilities, technology and technology infrastructure;
- our relationships with our content distribution channel partners;
- competition in our industry;
- general economic and business condition in China and elsewhere;
- relevant government policies and regulations relating to our industry; and
- the duration of the COVID-19 outbreak and its potential impact on our business and financial performance.

You should read this annual report and the documents that we refer to in this annual report and have filed as exhibits to this annual report completely and with the understanding that our actual future results may be materially different from what we expect. Other sections of this annual report discuss factors which could adversely impact our business and financial performance. Moreover, we operate in an evolving environment. New risk factors emerge from time to time and it is not possible for our management to predict all risk factors, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. We qualify all of our forward-looking statements by these cautionary statements.

You should not rely upon forward-looking statements as predictions of future events. The forward-looking statements made in this annual report relate only to events or information as of the date on which the statements are made in this annual report. Except as required by law, we undertake no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise, after the date on which the statements are made or to reflect the occurrence of unanticipated events.

## PART I

### ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS

Not Applicable.

### ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not Applicable.

### ITEM 3. KEY INFORMATION

#### A. Selected Financial Data

##### **Our Selected Consolidated Financial Data**

The following selected consolidated statements of comprehensive loss data for the years ended December 31, 2017, 2018 and 2019, selected consolidated balance sheet data as of December 31, 2018 and 2019 and selected consolidated cash flow data for the years ended December 31, 2017, 2018 and 2019 have been derived from our audited consolidated financial statements included elsewhere in this annual report. The selected consolidated statements of comprehensive loss data for the years ended December 31, 2015 and 2016, selected consolidated balance sheet data as of December 31, 2015, 2016 and 2017 and the selected consolidated cash flow data for the years ended December 31, 2015 and 2016 have been derived from our consolidated financial statements that are not included in this annual report. Our consolidated financial statements are prepared and presented in accordance with generally accepted accounting principles in the United States, or U.S. GAAP.

You should read the selected consolidated financial information in conjunction with our consolidated financial statements and related notes and “Item 5. Operating and Financial Review and Prospects” included elsewhere in this annual report. Our historical results are not necessarily indicative of our results expected for future periods.

	Year Ended December 31,				
	2015	2016	2017	2018	2019
	(US\$ in thousands, except for per share and share data)				
<b>Selected Consolidated Statements of Comprehensive Loss:</b>					
Net revenues <sup>(1)</sup>	65,242	95,357	125,258	160,017	199,408
Cost of revenues <sup>(1)</sup>	(34,531)	(61,048)	(95,733)	(120,897)	(142,703)
Gross profit	30,711	34,309	29,525	39,120	56,705
Operating expenses:					
Research and development expenses	(8,106)	(8,584)	(5,778)	(10,737)	(5,574)
Sales and marketing expenses	(31,385)	(28,266)	(25,935)	(32,080)	(42,968)
General and administrative expenses	(12,745)	(26,767)	(12,983)	(23,757)	(20,304)
Total operating expenses	(52,236)	(63,617)	(44,696)	(66,574)	(68,846)
Operating loss	(21,525)	(29,308)	(15,171)	(27,454)	(12,141)
Interest income	—	—	—	421	537
Interest expense	(107)	(713)	(551)	(773)	(1,915)
Other gains/(losses), net	791	(1,082)	1,841	687	2,992
Fair value (losses)/gains on derivative liabilities	(19,390)	3,995	(10,190)	—	—
Fair value (losses)/gains on convertible notes	—	—	—	(4,837)	133
Loss before income tax expense	(40,231)	(27,108)	(24,071)	(31,956)	(10,394)
Income tax benefit/(expenses)	555	(222)	(548)	(655)	(47)
Share of losses from an equity investee	(38)	—	—	—	(408)
Net loss	(39,714)	(27,330)	(24,619)	(32,611)	(10,849)
Net loss attributable to noncontrolling interests	—	—	—	202	1,246
Net loss attributable to iClick Interactive Asia Group Limited	(39,714)	(27,330)	(24,619)	(32,409)	(9,603)
Accretion to convertible redeemable preferred shares redemption value	(2,692)	(773)	(1,662)	—	—
Accretion to redeemable ordinary shares redemption value	(1,982)	(1,556)	(3,650)	—	—
Deemed contribution from Series B-1 preferred shareholders	2,591	—	—	—	—
Net loss attributable to iClick Interactive Asia Group Limited's ordinary shareholders	(41,797)	(29,659)	(29,931)	(32,409)	(9,603)
Net loss	(39,714)	(27,330)	(24,619)	(32,611)	(10,849)
Other comprehensive loss:					
Foreign currency translation adjustment, net of US\$nil tax	(129)	(139)	(79)	(2,547)	(1,700)
Comprehensive loss	(39,843)	(27,469)	(24,698)	(35,158)	(12,549)
Comprehensive loss attributable to noncontrolling interests	—	—	—	202	1,334
Comprehensive loss attributable to iClick Interactive Asia Group Limited	(39,843)	(27,469)	(24,698)	(34,956)	(11,215)
Net loss per share attributable to iClick Interactive Asia Group Limited					
Basic	(3.58)	(2.26)	(2.15)	(1.23)	(0.34)
Diluted	(3.58)	(2.26)	(2.15)	(1.23)	(0.34)
Weighted average number of ordinary shares used in per share calculation					
Basic	11,661,049	13,151,063	13,931,503	26,452,409	28,583,548
Diluted	11,661,049	13,151,063	13,931,503	26,452,409	28,583,548

	As of December 31,				
	2015	2016	2017	2018	2019
	(US\$ in thousands)				
<b>Selected Consolidated Balance Sheet Data:</b>					
Current assets:					
Cash and cash equivalents	10,395	27,280	19,401	39,828	36,854
Time deposit	—	—	25,000	—	410
Restricted cash	1,000	5,234	—	—	23,852
Short-term investment	1,552	—	—	17,427	—
Accounts receivable, net of allowance for doubtful receivables of US\$1,733, US\$1,693, US\$1,478, US\$1,507 and US\$3,469 as of December 31, 2015, 2016, 2017, 2018 and 2019, respectively	28,423	30,694	40,798	65,627	143,971
Rebates receivable	3,642	2,250	1,334	4,067	5,603
Prepaid media cost	24,793	34,409	37,784	19,107	25,565
Non-current assets:					
Intangible assets, net	19,095	14,804	10,600	7,247	4,418
Goodwill <sup>(5)</sup>	48,496	48,496	48,496	48,496	65,710
<b>Total assets<sup>(2) (5)</sup></b>	<b>146,110</b>	<b>169,640</b>	<b>188,822</b>	<b>207,258</b>	<b>321,516</b>
Liabilities, mezzanine equity and shareholders' deficit:					
Current liabilities <sup>(2)/(3)</sup>	114,063	126,572	65,679	97,151	203,940
Non-current liabilities <sup>(2)/(3)</sup>	4,766	2,997	3,159	3,467	3,020
<b>Total liabilities</b>	<b>118,829</b>	<b>129,569</b>	<b>68,838</b>	<b>100,618</b>	<b>206,960</b>
Total mezzanine equity	83,210	104,383	—	—	—
Ordinary shares (13,104,300, 13,609,208, 26,059,433, 27,986,700 and 28,690,635 shares issued and outstanding as of December 31, 2015, 2016, 2017, 2018 and 2019, respectively)	13	14	26	28	29
<b>Total (deficit)/equity<sup>(5)</sup></b>	<b>(55,929)</b>	<b>(64,312)</b>	<b>119,984</b>	<b>106,640</b>	<b>114,556</b>
<b>Total liabilities, mezzanine equity and shareholders' deficit/equity<sup>(5)</sup></b>	<b>146,110</b>	<b>169,640</b>	<b>188,822</b>	<b>207,258</b>	<b>321,516</b>

	Year Ended December 31,				
	2015	2016	2017	2018	2019
	(US\$ in thousands)				
<b>Selected Consolidated Cash Flow Data:</b>					
Net cash used in operating activities	(9,797)	(3,907)	(13,881)	(15,416)	(30,294)
Net cash (used in)/provided by investing activities	(18,787)	524	(25,165)	8,395	6,762
Net cash (used in)/provided by financing activities	(2,612)	24,564	25,546	27,775	44,804
Effect on exchange rate changes on cash and cash equivalents and restricted cash	(232)	(62)	387	(327)	(394)
Net (decrease)/increase in cash and cash equivalents and restricted cash	(31,196)	21,181	(13,500)	20,754	21,272
Cash and cash equivalents and restricted cash at the beginning of year <sup>(4)</sup>	42,823	11,395	32,514	19,401	39,828
Cash and cash equivalents and restricted cash at the end of the year <sup>(4)</sup>	11,395	32,514	19,401	39,828	60,706

- (1) On January 1, 2018, we adopted ASC 606 "Revenue from Contracts with Customers" using the modified retrospective method. The adoption did not have any impact to the accumulated deficit as of January 1, 2018. As a result of the adoption, certain rebates to marketers are presented net of revenues, as opposed to being included in cost of revenues in prior periods.
- (2) We adopted the new leasing guidance (ASU 2016-02) started from January 1, 2019, which requires that a lessee recognize the assets and liabilities that arise from operating leases. We recognized a right-of-use asset and a liability relating to lease payments (the Lease Liability) in the consolidated balance sheets for lease contracts having terms beyond 12 months period. The consolidated financial information related to periods prior to January 1, 2019 was not restated, and continues to be reported under ASC Topic 840—Leases.

- (3) The balance as of December 31, 2015 and 2016 reflects the impact of the retrospective adjustment for the reclassification of current deferred tax liabilities to non-current liabilities following the adoption of ASU No. 2015-17 on January 1, 2017.
- (4) The amounts for the years ended December 31, 2015, 2016 and 2017 reflect the impact of the retrospective adjustment for the presentation of restricted cash with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts in the consolidated statements of cash flows following the adoption of ASU No. 2016-18 on January 1, 2018.
- (5) The balance sheet amounts reflect an entry that was made to increase goodwill and non-controlling interests as of December 31, 2019 in the amount of US\$10.6 million to measure non-controlling interests at fair value upon initial recognition on January 1, 2019, being the acquisition date of our subsidiary, Changyi (Shanghai) Information Technology Ltd. The entry was made after we issued our press release to announce 2019 results as furnished Form 6-K on March 31, 2020. The same entry is applicable to the amounts of goodwill and non-controlling interests as of March 31, 2019, June 30, 2019 and September 30, 2019, respectively, as previously disclosed in our press releases to announce 2019 quarterly results as furnished on the Form 6-K on May 29, 2019, August 26, 2019 and November 26, 2019, respectively.

B. Capitalization and Indebtedness

Not Applicable.

C. Reasons for the Offer and Use of Proceeds

Not Applicable.

D. Risk Factors

**Risks Related to Our Business and Industry**

***We have experienced fluctuations in growth in recent periods, and our historical growth rates may not be indicative of our future growth.***

We have experienced fluctuations in growth in recent periods. We may not be able to sustain our historical growth rates, or at all. You should not consider our historical growth in gross billing and net revenues as indicative of our future performance. Our recent growth was driven by an increase in gross billing from mobile marketing solutions as a result of our strategic focus shifting to capture more market demand in mobile marketing solutions, as well as our newly launched enterprise solutions. In future periods, our gross billing and net revenues could decline or grow more slowly than we expect and the client base optimization may not achieve the benefits as we expected. We believe our business, prospects and results of operations depend on a number of factors, some of which are described in more detail in this section, including our ability to:

- successfully execute our mobile strategy in the increasingly competitive mobile online marketing segment;
- successfully integrate our core marketing solutions with our newly launched enterprise solutions;
- retain existing clients while continuing to optimize our client base;
- attract new clients and further diversify our client base, including more clients to use our solutions on a self-serve basis and marketers from new industries and geographic regions;
- maintain the breadth and depth of our cooperation with content distribution channels, including publishers, ad exchanges, and ad networks, and attract new ones in order to increase the volume and breadth of content distribution opportunities available to us;
- adapt our solutions and service offerings to meet evolving business needs, including to address market trends such as the migration of consumers from PCs to mobile devices;
- leverage our data assets and experience and expertise in online marketing to extend our solutions beyond online marketing and achieve market acceptance;
- maintain the proper functioning of our technology architecture as our business continues to grow;
- maintain and grow our data assets in order to help marketers identify, engage and convert their audience;
- maintain a high level of customer satisfaction;
- adapt to a changing regulatory landscape governing privacy matters;

- acquire or invest in businesses, products and technologies and to integrate and realize synergies from acquisitions and strategic investments;
- increase awareness of our brand among marketers on a global basis in a cost-effective manner; and
- attract and retain employees.

We cannot assure you that we will be able to successfully accomplish any of these objectives.

***We face intense competition for our mobile marketing solutions, and if we fail to maintain and enhance our mobile capabilities, our results of operations could be materially and adversely affected.***

Our recent growth was primarily driven by our expansion since 2014 into mobile channels to identify, engage and convert mobile marketing. We have experienced and expect to continue to face intense competition in respect of our mobile marketing solutions. To deliver, maintain and enhance our mobile capabilities, it is important that we further integrate with a wider range of mobile technologies, systems, networks and standards that we do not control. We may not be successful in developing solutions that operate effectively with these technologies, systems, networks or standards. Any of these could have a material adverse effect on our business, prospects and results of operations.

While marketing via non-mobile online channels has been established for several years, marketing via mobile channels, in particular via mobile apps, is a relatively new phenomenon. In light of the rising demand for marketing via mobile apps, mobile app publishers, especially popular mobile app publishers tend to command stronger bargaining power compared to their non-mobile app publisher counterparts. All of these have resulted in a downward pricing pressure on, and increased media costs for, our mobile marketing solutions. Net revenues from our mobile marketing solutions increased significantly, which amounted to US\$101.4 million, US\$140.4 million and US\$171.1 million in 2017, 2018 and 2019, respectively. However, gross margin for our mobile marketing solutions remained relatively low and was 10.4%, 14.6% and 18.7% in 2017, 2018 and 2019, respectively. In addition, the gross margin for our mobile marketing solutions may fluctuate in future. As we continue to prioritize the execution of our mobile strategy and face increasing competition and pricing pressure for our mobile marketing solutions, our profit margin could be materially and adversely affected.

***We have incurred net losses in the past and may not achieve profitability in the future.***

We incurred net losses of US\$24.6 million in 2017, US\$32.6 million in 2018 and US\$10.8 million in 2019. As of December 31, 2019, we had an accumulated deficit of US\$191.0 million. We will need to generate increased revenue levels in future periods to become profitable, and, even if we do, we may not be able to improve our profitability as we intend to continue to expend significant funds to grow our marketing and sales operations, develop and enhance our data analytic capabilities, scale our data center infrastructure and services capabilities and expand into new market segments. Our efforts to grow our business may be more costly than we expect, and we may not be able to increase our revenue enough to offset our operating expenses. We may incur significant losses in the future for a number of reasons, including the other risks described in this annual report, and unforeseen expenses, difficulties, complications and delays and other unknown events. If we are unable to achieve or sustain profitability, the market price of our ADSs may significantly decrease.

***Our newly launched business, including our enterprise solutions, may not be successful, and we may not successfully integrate our new solutions with existing solutions.***

We have been leveraging our data assets and experience and expertise to extend our solutions beyond our core online marketing business. For example, in May 2018, we started to offer enterprise solutions and in January 2019, we made a controlling investment in Changyi (Shanghai) Information Technology Co., Ltd., or Changyi, which further enhances our enterprise solution capabilities. We may not be successful in our newly launched business lines, including enterprise solutions. For example, our data assets and experience and expertise in online marketing may not prove successful for enterprise solutions, and there can be no assurance that we will successfully integrate, utilize and leverage Changyi's enterprise solution capabilities. In addition, in February 2020, we agreed to make a controlling investment in Optimal Power Limited, a subsidiary wholly owned by Creative Big Limited. As of the date of this annual report, we are still in the process of negotiating and finalizing the terms of a definitive agreement for this investment, and we expect to complete the investment in the second quarter of 2020. As part of the transaction, Creative Big Limited will inject certain premium media licensing assets into Optimal Power Limited covering a number of jurisdictions in Asia-Pacific. While we believe this investment will broaden our content distribution channels and enrich offerings of our online marketing solutions, we cannot assure you that this strategy will be successful or that our online marketing solutions' financial performance would be improved. If we are unable to successfully, fully integrate any business, product or technology we acquire, our business, financial condition and results of operations may suffer.

Our enterprise solutions are currently primarily established on our cooperation with Tencent Holdings Limited, or Tencent. For example, we help our clients put in place data-management platforms which are currently built primarily on Tencent Cloud and Enterprise WeChat Work. As a result, we rely on the functionality and stability of Tencent’s cloud and Wechat’s infrastructure in providing our enterprise solutions. In addition, we rely on Tencent’s proprietary API connections to gather and analyze customer data and create consumer profiles. Any disruption or termination of this cooperative relationship could deteriorate our ability to operate our newly launched enterprise solutions, which could negatively affect our business, financial condition and results of operations.

In addition, we may face increased competition as we expand into the enterprise solution market. We may face competitions from local companies that are working on enterprise solutions, new cloud computing and artificial intelligence. We may also face potential competition from international SaaS companies, which have longer operating histories, greater financial, technical, marketing, distribution, professional services or other resources and greater name recognition. If we fail to upgrade our technologies and differentiate our enterprise solutions to effectively identify and address clients’ needs, our business, results of operations and prospects could be materially and adversely affected.

We have been making efforts to promote our newly launched enterprise solutions to clients in industries including new retail, online education, real estate and other sectors, including through cross-selling or upselling to existing clients and referral from existing clients. We cannot assure you that these promotion and marketing efforts will be successful. As a result, the success of our enterprise solutions depends on the continued growth of these sectors. In addition, to the extent businesses do not find our enterprise solutions an effective or efficient way of customer management and to the extent there are any potential new developments in their sectors, our enterprise solutions may be less attractive to clients, and our results of operations and business growth prospects may be adversely affected.

We may also face unexpected new risks as we continue to launch new businesses. As a result, we cannot assure you that we will be successful in this new business. If we cannot successfully address new challenges and compete effectively, we may not be able to develop a sufficient client base, recover costs incurred for developing and marketing our new business, and eventually achieve profitability from our new business, and, consequently, our future results of operations and growth prospects may be materially and adversely affected.

***Our sales cycle may become more time-consuming and expensive under enterprise solutions, we may encounter pricing pressure and implementation and configuration challenges, and we may have to delay revenue recognition for some complex transactions, all of which could harm our business and operating results.***

As the development cycle on enterprise solutions is subject to the complexity of the clients’ needs and requirements, industries, scale of operation, etc., we may face greater costs, longer sales cycles and less predictability in completing some of our sales. In this market segment, clients’ decision to use our services may be an enterprise-wide decision and, if so, these types of sales would require us to provide greater levels of education regarding the use and benefits of our services, as well as education regarding privacy and data protection laws and regulations to prospective clients with international operations. As a result of these factors, these sales opportunities may require us to devote greater development, sales support and professional services resources to individual clients, driving up costs and time required to complete the transactions, while potentially requiring us to delay revenue recognition on some of these transactions until the technical or implementation requirements have been met.

***Our net revenues, net revenues as a percentage of gross billing, gross profit margin and the comparability of our financial results may be affected by our revenue models.***

We derive revenue primarily from four sources and report them on either a net or gross basis: (i) revenue from incentives earned from the website publishers for which we act as a sales agent for their content distribution opportunities, or the sales agency arrangement, which is reported on a net basis, (ii) revenue from performing cost-plus marketing campaigns, which is reported on a net basis; (iii) revenue from performing specified actions marketing campaigns (i.e., a CPM, CPC, CPA, CPS, CPL or ROI basis), which is reported on the gross basis, and (iv) revenue from SaaS products offering under our enterprise solutions business, which is reported on a gross basis and a net basis. Please see “Item 5. Operating and Financial Review and Prospects—A. Operating Results—Key Components of Results of Operations—Net Revenues” for more details. The gross profit margins for our sales agency arrangement and cost-plus marketing campaigns are higher than that for our specified action marketing campaigns as cost of revenues for our sales agency arrangement and cost-plus marketing campaigns does not include media cost.

Consequently, an increase in the percentage of gross billing recognized as net revenues from performing specified actions marketing campaigns will have a positive impact on our net revenues and a negative impact on our gross profit margin. On the other hand, an increase in the percentage of gross billing recognized as net revenues from our sales agency arrangement and from performing cost-plus marketing campaigns will have a negative impact on our net revenues and a positive impact on gross profit margin. As the relative percentage of gross billing from incentives earned from the website publisher under our sales agency arrangement and from performing cost-plus marketing campaigns, on the one hand, and from performing specified actions marketing campaigns on the other hand, changes from time to time, the relative proportions of gross billing recognized as net revenues on a gross basis and a net basis also fluctuate, which would consequently impact our net revenues and gross profit margin. Our mobile

marketing solutions on one hand, and other marketing solutions, on the other hand, each represent a mixture of revenue recognized on a gross basis and on a net basis and the proportion of each fluctuates from period to period. Therefore our net revenues, net revenues as a percentage of gross billing, gross profit margin and the comparability of our financial results in one period to another may be affected by the relative percentage of gross billing recognized as net revenues on the gross basis and net basis. The relative proportions of gross billing recognized as net revenues on a gross basis and a net basis, are affected by a variety of factors, in particular, the terms of the arrangements with our clients, including whether to conduct their marketing campaigns on a specified-action (i.e., gross) or cost-plus (i.e., net) basis in a particular period, which depends on clients' needs and goals.

***Failure to retain existing clients or attract new ones could adversely impact our business and results of operations.***

We do not have long-term marketing campaign contracts with clients, and a majority of our marketing campaign contracts are for a term of one year or shorter. Our clients, referring to entities which enter into marketing campaign contracts with us and incur marketing spend during the relevant period and which include direct marketers and marketing agencies, are not obligated to use our platform on an exclusive basis and they generally use multiple providers to manage their marketing spend. Accordingly, we must convince our clients to use our platform, increase their usage and spend a larger share of their online marketing budgets with us, and do so on an on-going basis.

Our ability to achieve renewals or marketing campaign contracts and new sales depends on many factors, some of which are out of our control, including:

- customer satisfaction with our solutions, including any new solutions that we may develop,
- the competitiveness of our pricing and payment terms for our clients, which may, in turn, be constrained by our capital and financial resources,
- customer satisfaction with our account managing services,
- our ability to tailor our solution offerings and delivery and pricing models in accordance with the evolving needs of our clients and end marketers,
- our ability to expand our data base and solutions to serve marketers in a wider range of industries and geographic regions,
- our ability to integrate with a wider range of new mobile technologies, systems, networks and standards,
- mergers, acquisitions or other consolidation among marketers and marketing agencies, and
- the effects of global economic conditions on spending levels of marketers generally.

Therefore, we cannot assure you that clients that have generated marketing spend on our platform in the past will continue to spend at similar levels or that they will continue to use our platform at all. We may not be able to replace clients which reduce or cease their usage of our platform with new clients that spend similarly on our platform. We have relied on a limited number of clients to generate a significant portion of our revenues. For example, while we did not have any client that contributed to more than 10% of our net revenues in 2017 and 2019, we had one client from the entertainment industry that contributed to 14% of our net revenues in 2018.

In addition, we have started a comprehensive review of the client base especially for other marketing solutions since 2016 to focus on profitability and liquidity. For example, we terminated relationships with certain clients for our other marketing solutions as they had relatively long accounts receivable cycles and yielded relatively low operating profit margins to us. Some of these clients were large marketers and had individually accounted for more than 5% of our annual gross billing historically. As a result, gross billing from our other marketing solutions decreased by 6.6% from US\$76.1 million in 2017 to US\$71.0 million in 2018 and further by 8.9% to US\$64.7 million in 2019. Relatedly, the total number of our marketers decreased by 3.2% from 2,561 in 2017 to 2,479 in 2018. The total number of our marketers increased by 40% from 2018 to 3,481 in 2019, primarily attributable to our increased ability to cater to the growing market demand. However, as we continue to engage in client optimization and review our client base for a more sustainable long-term growth, we cannot assure you that the increase in the total number of marketers will continue.

If our existing clients do not continue to use or increase their use of our platform, or if we are unable to attract sufficient marketing spend on our platform from new clients, our business and results of operations could be materially and adversely affected.

***Loss of any marketing agency client may materially and adversely affect our business and results of operations.***

We engage third-party marketing agencies to help source and serve some of our marketers. In 2019, we had 3,481 marketers. Among these marketers, 1,793 were represented by our marketing agency clients, which contributed a significant portion of our gross billing and net revenues. We do not have exclusive business arrangement with these marketing agencies. If we lose any marketing agency, we risk losing business from end marketers represented by that agency. In addition, some marketing agencies have their own

business arrangements with content distribution channels and can directly connect marketers with such channels. Our business may suffer to the extent that marketing agencies and content distribution channels purchase and sell content distribution opportunities directly from one another or through intermediaries other than us. Loss of marketing agencies as our clients could materially and adversely affect our business and results of operations.

Furthermore, our contractual arrangements with marketing agency clients do not provide us with control or oversight over their day-to-day business activities. If any of our marketing agency clients engage in activities that violate laws and regulations, our reputation could be harmed and our business and results of operations could be materially and adversely affected.

***Loss of any content distribution channel and changes in the contract terms with any content distribution channel may materially and adversely affect our business and results of operations.***

Our consistent access to attractive content distribution opportunities is crucial to our business. We primarily rely on third-party content distribution channels to access content distribution opportunities. Our content distribution channels are concentrated and primarily include online and mobile publishers, major search engines and ad exchanges, including those owned or operated by Tencent, Baidu, Google and Alibaba. Media costs for content distribution opportunities on Tencent, Baidu, Google and Alibaba channels in aggregate accounted for 89.1%, 91.1% and 87.4% of our media costs in 2017, 2018 and 2019, respectively. Media costs for content distribution opportunities on our largest and second largest channel partners accounted for 80.8% and 6.6% of our media costs in 2019, respectively. In addition, our contracts with content distribution channels are generally for a period of one year and do not impose long-term obligations requiring them to make their content distribution opportunities available to us on reasonable terms or at all. The loss of access to content distribution opportunities from one of those companies would negatively impact our ability to help marketers reach their audience.

Our ability to source content distribution opportunities from content distribution channels depends in part on our ability to continuously generate sufficient marketing spend from our clients on these channels. If our content distribution channels terminate or choose not to renew their contracts with us, our business and results of operations will be materially and adversely affected.

In addition, we may not be able to negotiate favorable or acceptable terms once the contracts expire. For example, the written contract with a content distribution channel under our sales agency arrangement expired on December 31, 2019 and as of the date hereof, we have not yet executed and are negotiating a new written contract with this content distribution channel. Net revenues from this content distribution channel under our sales agency arrangement were US\$8.3 million, US\$8.7 million and US\$6.6 million in 2017, 2018 and 2019, representing 6.6%, 5.4%, and 3.3% of our total net revenues for the respective years. As the contract is still being negotiated, there is no assurance that we will be able to execute the contract with terms favorable or acceptable to us or at all, which could have a material adverse impact on our financial condition and results of operations.

Furthermore, our contracts with content distribution channels generally provide for certain rebates or incentives, generally calculated as a percentage of marketing spend, that we are entitled to should the market spending during the terms exceed the specified thresholds. Under some of our contracts, content distribution channels offer staggered levels of rebates or incentives to us depending on the amount of marketing spend we achieve during the period. We are subject to ongoing obligations and continued regulatory review. If we fail to maintain or renew the value-added telecommunication license, or fail to obtain any additional licenses and permits or make any records or filings required by new laws, regulations or executive orders in a timely manner or at all, we could be subject to liabilities or penalties, and we may have to change our business models, and our operations could be adversely affected. In addition, new laws and regulations may be adopted from time to time to address new issues that come to the authorities' attention, which may require us to obtain new license and permits, or take certain actions that may adversely affect our business operations. We may not timely obtain or maintain all the required licenses or approvals or make all the necessary filings. Nor can we assure you that we will be able to timely address all the changes in policy, failure of which may subject us to liabilities or penalties, and our operations could be adversely affected.

***We face risks related to natural disasters, health epidemics and other outbreaks, which could significantly disrupt our operations. In particular, we could be materially and adversely affected by the outbreak of COVID-19.***

We are vulnerable to natural disasters and other calamities. Fire, floods, typhoons, earthquakes, power loss, telecommunications failures, break-ins, war, riots, terrorist attacks or similar events may give rise to server interruptions, breakdowns, system failures, technology platform failures or internet failures, which could cause the loss or corruption of data or malfunctions of software or hardware as well as adversely affect our ability to provide solutions and services on our platform. Our business could also be adversely affected by the effects of a novel strain of coronavirus, or COVID-19, Ebola virus disease, Zika virus disease, H1N1 flu, H7N9 flu, avian flu, Severe Acute Respiratory Syndrome, or SARS, or other epidemics.

Most of our system hardware and back-up systems are hosted in leased facilities in Hong Kong, Shanghai, Beijing and Guangzhou province, and most of our directors, senior management and employees are based in Hong Kong, Shanghai and Beijing. Therefore, if any of the above-mentioned natural disasters, health epidemics or other outbreaks were to occur in these regions, our operations may experience material disruptions, such as temporary closure of our offices and suspension of services, which may materially and adversely affect our business and results of operations. Our business, results of operations, financial condition and prospects could be materially and adversely affected directly, as well as to the extent that the coronavirus or any other epidemic harms the Chinese economy in general. For example, since December 2019, there has been an outbreak of COVID-19 in China and around the world. COVID-19 is considered to be highly contagious and poses a serious public health threat. In March 2020, the World Health Organization declared the COVID-19 a pandemic, given its threat beyond a public health emergency of international concern that the organization had declared on January 30, 2020. The pandemic has resulted in quarantines, travel restrictions, home office policies, and the temporary closure of stores and facilities in China, Hong Kong and many other jurisdictions for the past few months. These measures have slowed down the development of the Chinese economy and adversely affected the global economic conditions and financial markets. Substantially all of our revenues and our workforce are based in China and Hong Kong. Our operations have been, and may continue to be, materially and adversely affected by potential delays in or reductions of business activities and commercial transactions and by general uncertainties surrounding the duration of the government's extended business and travel restrictions. In addition, our business operations could be disrupted if any of our employees is suspected of contracting the coronavirus or any other epidemic disease, since it could require our employees to be quarantined and/or our offices to be disinfected.

The potential downturn brought by and the duration of COVID-19 are difficult to assess or predict now. Any potential impact on our results will depend on, to a large extent, future developments and new information that may emerge regarding the duration of COVID-19 and the actions taken by governmental authorities and other entities to contain COVID-19 or treat its impact, which are mostly beyond our control. As of the date of this annual report, we believe potential impact of COVID-19 on our results of operations includes, but is not limited to: (a) our clients in industries that are adversely affected by the outbreak of COVID-19, including travel and hospitality sectors, among others, may reduce their budgets on advertising, adversely affecting our marketing solutions business; and (b) our clients may require additional time to pay us or fail to pay us at all, which could significantly increase our accounts receivable, requiring us to record additional allowances for doubtful accounts.

***The independent online marketing technology market is highly fragmented and intensely competitive. Independent online marketing technology platforms also face competitive pressure from well-established internet companies, marketing agencies and traditional media. In addition, as we expand into the enterprise solution market, we also face increasingly intensified competition.***

China's independent online marketing technology market is highly competitive, fragmented and rapidly changing. With the introduction of new technologies and the influx of new entrants, we expect competition to continue and intensify, which could harm our ability to increase revenue and attain or sustain profitability. We believe the principal competitive factors in this industry include:

- ability to deliver return on marketing expenditure at scale;
- customer trust;
- geographic reach;
- breadth and depth of cooperation with publishers, ad exchanges, ad networks and other participants in the online marketing ecosystem;
- comprehensiveness of solutions and service offerings;
- pricing structure and competitiveness;
- cross-channel capabilities;
- accessibility and user-friendliness of solutions; and
- brand awareness.

In addition, independent online marketing technology platforms face competitive pressure from large and well-established internet companies, such as Alibaba, Baidu, Tencent and Google, which have established stronger and broader presence across the online marketing ecosystem and have significantly more financial, technical, marketing and other resources, more extensive client base, and longer operating histories and greater brand recognition than we do. These companies have access to user information by virtue of their popular consumer-oriented websites and mobile apps, and have the technology designed for use in conjunction with the types of user information collected from their websites and mobile apps. These companies may also leverage their positions to make changes to their systems, platforms, exchanges, networks or other products or services that could be harmful to our business and results of operations. While we believe that we do not directly compete with these large and well-established internet companies as we

promote their content distribution opportunities or purchase their content distribution opportunities in the ordinary course of our business in connection with our execution of marketing campaigns, and these companies generally do not provide integrated online marketing solutions the way we do, we face indirect competition from these major players in the online marketing technology industry as they provide online marketing technology and offer services and offer solutions that help marketers achieve one or more aspects of their marketing goals in one or more phases of their online marketing cycle. These large and well-established companies control content distribution channels and may also directly compete with us to the extent we expand our solutions and footprints vertically along the online marketing technology value chain. Further, some of these companies are, or may also become, our content distribution channels and may enter into other types of strategic arrangements with us. For example, we generally enter into annual framework agreements with content distribution channel partners, including Baidu and Tencent, to purchase or promote their content distribution opportunities. See “Item 4. Information on the Company—B. Business Overview—Our Content Distribution Channels”. Competitive pressure may incentivize them to cease their partnership with us. Online marketing technology platforms also face competition from marketing agencies, who may have their own relationships with content distribution channels and can directly connect marketers with such channels. Furthermore, online marketing technology platforms continue to compete with traditional media including direct marketing, television, radio, cable and print advertising companies.

New technologies and methods of online marketing present an evolving competitive challenge, as market participants upgrade or expand their service offerings to capture more marketing spend from marketers. In addition to existing competitors and their existing service offerings, we expect to face competition from new entrants to the online marketing technology industry and new service offerings from existing competitors. If existing or new companies develop, market or resell competitive high-value marketing technology solutions, acquire one of our competitors or strategic partners, form a strategic alliance or enter into exclusivity arrangement with one of our competitors or strategic partners, our ability to compete effectively could be significantly compromised and our business, results of operations and prospects could be materially and adversely affected.

In May 2018, we launched a strategic growth initiative beyond our core online marketing operation to provide SaaS-based enterprise solutions. Although we currently have few direct competitors in this relatively new and evolving area in China, we anticipate competition to increase based on businesses’ demands for this type of products. We may face competitions from local companies that are working on the enterprise solutions, new cloud computing and artificial intelligence. We may also face potential competition from international SaaS companies, which have longer operating histories, greater financial, technical, marketing, distribution, professional services or other resources and greater name recognition. In addition, many of our prospective competitors may have close relationship with our existing and new clients and bear an extensive knowledge of this industry. As a result, they may be able to respond more quickly to new or emerging technologies and changes in clients’ requirements, or devote greater resources to the development, promotion and sale of their products. If we fail to upgrade our technologies and differentiate our enterprise solutions to effectively identify and address clients’ needs, our business, results of operations and prospects could be materially and adversely affected.

***If online marketing technology solutions and enterprise solutions do not achieve widespread market acceptance, our business, growth prospects and results of operations would be materially and adversely affected.***

The market for online marketing technology solutions and enterprise solutions such as ours is evolving in China and these solutions may not achieve or sustain high levels of demand and market acceptance as we expect. While marketing via search engines or display channels has been established for several years, marketing via new digital channels such as mobile and social media is not as well established. The future growth of our business could be constrained by both the level of acceptance and expansion of emerging online marketing channels, as well as the continued use and growth of existing channels. Even if these channels become widely adopted, marketers and agencies may not be familiar with and make significant investments in, solutions such as ours that help them manage their online marketing across channels and devices. In addition, some of our solutions are delivered as software-as-a-service, or SaaS, offerings, which are less mature or common in China, and the pace of transition to SaaS business may be slower among marketers with heightened data security concerns or general demand for highly customizable application software. The acceptance of our solutions delivered as SaaS offerings will depend to a substantial extent on the education of our clients on the SaaS offerings and the widespread adoption of SaaS solutions in general, and we cannot be certain that the trend of adoption of such solutions will continue in the future. Therefore, it is difficult to predict the demand for our platform or the future growth rate and size of the market for online marketing technology solutions.

Expansion of the market for online marketing technology solutions depends on a number of factors, including the growth of new digital channels such as mobile and social media and the cost, as well as the performance and perceived value associated with online marketing technology solutions. If online marketing technology solutions do not achieve widespread acceptance, or there is a reduction in demand for online marketing caused by weakening economic conditions, decreases in corporate spending, technological challenges, data security or privacy concerns, governmental regulation, competing technologies and solutions or otherwise, our business, growth prospects and results of operations will be materially and adversely affected.

Enterprise solution is a relative new data technology market in PRC. The expansion of our enterprise solutions depends on the clients' interest and market acceptance. If we fail to obtain a widespread acceptance, our number of clients may decrease. We may also incur additional spending to further enhance our brand recognition and promotion, which could adversely impact our profitability. If our enterprise solutions fail to gain a widespread acceptance, our business, growth prospects and results of operations may also be materially and adversely affected.

***If our algorithms and data engines for assessing and predicting potential audience behaviors are flawed or ineffective, or if our platform fails to otherwise function properly, our reputation and market share would be materially and adversely affected.***

Our ability to attract marketers to, and build trust in, our platform is significantly dependent on our ability to effectively assess and predict audience interest in, and therefore interaction with, relevant marketing content. In addition, our ability to attract businesses to use our enterprise solutions is significantly dependent on our ability to effectively identify and address their needs on customer relationship management, or CRM, and data analytics (e.g. sales data, customer data, product data, etc.). We utilize our proprietary algorithms and data engines to track, process and analyze internet user data, forecast probability and nature of internet users' potential engagement with a given marketing message, create and tailor the marketing message to specific user interest, and execute marketing campaigns based on parameters specified by our clients. Our proprietary algorithms and data engines take into account multiple kinds and sources of data, including data on users' interest, intent, E-commerce and offline purchase behavior, social data, demographic data and campaign performance data, which we track using our proprietary tracking tools, from our marketers, publishers and ad exchanges in connection with marketing campaigns, and from collaboration with selected third-party data partners. The data we collect may not be relevant to all industries, and for certain industries, we may not have sufficient user data to ensure that our algorithms and data engines would work effectively. Furthermore, we generally do not verify the data we gather, which may be subject to fraud or are otherwise inaccurate. Even if such data are accurate, they may become irrelevant or outdated and thus may not reflect a user's genuine interest or accurately predict his or her interaction with a given marketing message. For example, following the date we obtain the relevant data, a user's interest and behavior pattern may change or he or she may have already completed a transaction and is no longer interested in the marketing message.

In addition, we expect to experience significant growth in the amount of data we process as we continue to develop new solutions and features to meet evolving and growing marketer demands. As the amount of data and variables we process increases, the calculations that our algorithms and data engines must process become increasingly complex and the likelihood of any defect or error increases. To the extent our proprietary algorithms and data engines fail to accurately assess or predict a user's interest in and interaction with, the relevant marketing content, or experience significant errors or defects, marketers may not achieve their marketing goals in a cost-effective manner or at all, which could make our platform less attractive to them, result in damages to our reputation and a decline of our market share and adversely affect our business and results of operations.

***Our ability to collect and use data from various sources could be restricted.***

The optimal performance of our algorithms and data engines depends on the data that we collect from multiple sources, which we use to build user profiles, develop and refine our algorithms and data engines. Our ability to collect and use these types of data is limited by a number of factors, some of which are described in further details elsewhere in this section, including:

- consumer choices, including the blocking or deletion of cookies or modifications to privacy settings;
- decisions by marketers, content distribution channels, or selected third party that we have data collaboration arrangement with, to restrict our ability to collect data from them, to refuse to implement mechanisms that we request to ensure compliance with our legal obligations;
- changes in browser or device functionality and settings, and other new technologies, which could make it easier for users to prevent the placement of cookies or other tracking technologies;
- new developments in law, regulations and industry standards on privacy and data protection regimes, including increased visibility of consent mechanisms as a result of these legal, regulatory or industry developments;
- the failure of our network or software systems, or the network or software systems of marketers;
- our inability to grow client base in new industries and geographic markets in order to obtain the critical mass of data necessary for our algorithms and data engines to perform optimally in these new industries and geographies;
- our relationship with our data partners or certain key data sources, including major internet companies in China, which may stop providing or be unable to provide us data on terms acceptable to us; and
- interruptions, failures or defects in our data collection, mining, analysis and storage systems.

Any of the above described limitations on our ability to successfully collect and use data could materially impair the optimal performance of our algorithms and data engines as well as the efficiency of our solutions, which could make our platform less attractive to marketers and result in damages to our reputation, a decline of our market share and adversely affect our business and results of operations.

***Blocking or deletion of cookies or other modifications to privacy settings on PCs and mobile devices could impair our data collection and effectiveness of our solutions.***

Cookies that we place are generally regarded as “third party cookies” because we place them through internet browsers on an internet user when an internet user visit our website or a website owned by our marketers or other party that has given us permission to place cookies. Our cookies generally record non-personally identifiable information, including when a user views or clicks on a marketing message, where a user is located, how many marketing messages a user has seen, and browser or device information. We use data from cookies to help build user profiles that assess audience interest and predict audience potential interaction with a given marketing message. Cookies may easily be deleted or blocked by internet users. Commonly used internet browsers (Chrome, Firefox, Internet Explorer, and Safari) allow internet users to modify their browser settings to prevent cookies from being accepted by their browsers. Most browsers also now support temporary privacy modes that allow the user to suspend, with a single click, the placement of new cookies or reading or updates of existing cookies. Internet users can also delete cookies from their computers at any time. Some internet users also download free or paid “ad blocking” software that prevents certain cookies from being stored on a user’s computer. Further, certain web browsers, such as Safari, currently block or are planning to block some or all third-party cookies by default, as do Apple’s iPad and iPhones devices. Mobile devices based upon the Android operating system use cookies only in their web browser applications, so that cookies do not track Android users while they are using other applications on the device. If web browsers block, or internet users reject or delete, cookies, fewer of our cookies or our marketers’ cookies may be set in browsers or accessible in mobile devices, which could adversely affect our data collection and hence the optimal performance of our algorithms and data engines and effectiveness of our solutions.

Aside from blocking or deleting of cookies, other modifications to privacy settings on the PCs and mobile devices could limit or restrict our ability to collect and analyze data. For example, certain search engines, such as Google, provide an encrypted search function. Although we may still be able to see the amount of traffic brought to marketers’ website through the search engine, we will not be able to see the keywords that generate the traffic as the keywords are encrypted. This makes it more difficult for us to evaluate the effectiveness of keywords, and hence the effectiveness of our solutions may be compromised, which would result in client departure and reputation damages, and materially and adversely affect our business and results of operations.

***If we fail to maintain or renew the value-added telecommunication license, or fail to obtain other requisite license, or approvals or filings in China, the business carried out by certain consolidated entity may be materially and adversely affected.***

In November 2018, we, through OptAim Network, our variable interest entity, or VIE, made a controlling investment in Shanghai Myhayo Technology Co., Ltd., or Myhayo, a content distribution channel and a mobile content aggregator of articles and short videos in China. Myhayo presents customized feeds to users via its mobile application and allows users to earn points from their daily access to the app, which could be used to redeem cash rewards. Under the relevant PRC laws, commercial operators of value-added telecommunication services, which refer to providers of telecommunications and information services through public network infrastructures that provide information or services to internet users with a charge, shall obtain a value-added telecommunications business operation license. See “Item 4. Information on the Company—B. Business Overview—Regulations—Regulations on Value-added Telecommunication Services” and “—Regulations on Internet Content Providers.” It is unclear whether Myhayo’s business model would render it a commercial operator of value-added telecommunication service provider under the relevant PRC laws.

In August 2019, Myhayo obtained the value-added telecommunication license that has a validity term of five years from the relevant local counterpart of the Ministry of Industry and Information Technology, or MIIT. We are subject to ongoing obligations and continued regulatory review. If we fail to maintain or renew the value-added telecommunication license, or fail to obtain any additional licenses and permits or make any records or filings required by new laws, regulations or executive orders in a timely manner or at all, we could be subject to liabilities or penalties, and we may have to change our business models, and our operations could be adversely affected. In addition, new laws and regulations may be adopted from time to time to address new issues that come to the authorities’ attention, which may require us to obtain new license and permits, or take certain actions that may adversely affect our business operations. We may not timely obtain or maintain all the required licenses or approvals or make all the necessary filings. Nor can we assure you that we will be able to timely address all the change in policy, failure of which may subject us to liabilities or penalties, and our operations could be adversely affected.

***Content displayed on our platform and the mobile application may be found objectionable by PRC regulatory authorities and may subject us to penalties and other administrative actions.***

We are subject to PRC regulations governing internet access and other forms of information over the internet. Under these regulations, internet content providers are prohibited from posting over the internet any content that, among other things, violates PRC laws and regulations, impairs the national dignity of China or the public interest, or is obscene, superstitious, frightening,

gruesome, offensive, fraudulent or defamatory. Failure to comply with these requirements may result in monetary penalties, revocation of licenses to provide internet content or other licenses, suspension of the concerned platforms and reputational harm. In addition, these laws and regulations are subject to interpretation by the relevant authorities, and it may not be possible to determine in all cases the types of content that could cause us to be held liable as a content distribution channel and a mobile content aggregator of articles and short videos in China, which presents customized feeds to users via its mobile application. For a detailed discussion, see “Item 4. Information on the Company—B. Business Overview—Regulation—Regulations on Internet Content Providers.”

Internet platform operators may also be held liable for the content displayed on or linked to their platforms that is subject to certain restrictions. Our users may browse professional or user-generated content, such as articles and other content formats. Although we have adopted internal procedures to monitor the content displayed on our mobile application, due to the significant amount of content, we may not be able to identify all the content that may be illegal or otherwise objectionable. In addition, we may not be able to timely update our internal procedures to reflect the latest changes in the PRC government’s requirements for content display. Failure to identify and prevent illegal or inappropriate content from being displayed on our platform and the mobile application may subject us to liability, government sanctions or loss of licenses and/or permits.

***Regulatory, legislative or self-regulatory developments for online businesses, including privacy and data protection regimes, are expansive, not clearly defined and rapidly evolving. These laws and regulations could create unexpected costs, subject us to threats of lawsuits, enforcement actions for compliance failures, result in declines in user growth or engagement, restrict portions of our business or cause us to change our technology platform or business model.***

Governments around the world, including the PRC, Hong Kong, U.S. and European Union governments, have enacted or are considering legislation related to online businesses. There may be an increase in legislation and regulation related to online marketing, the use of geo-location data to inform marketing, the collection and use of anonymous internet user data and unique device identifiers, such as IP address or mobile unique device identifiers, and other data protection and privacy regulation. Some of our competitors may have more access to lobbyists or governmental officials and may use that access to effect statutory or regulatory changes in a manner to commercially harm us while favoring their solutions. These laws and regulations could adversely affect the demand for or effectiveness and value of our solutions, force us to incur substantial costs or require us to change our business practices in a manner that could adversely affect our business and results of operations or compromise our ability to effectively pursue our growth strategies.

We primarily target Chinese language internet users in China for our marketers from all over the world. Through our enterprise solutions, we also access and gather data of users outside China as clients adopt our enterprise solutions. As a result, we may be directly or indirectly subject to the laws and regulations on online marketing, including data and privacy laws, of multiple jurisdictions.

In recent years, the PRC government has enacted legislation on internet use to protect personal information from any unauthorized disclosure. For example, on February 1, 2013, China’s first set of personal data protection guidelines, the Guidelines for Personal Information Protection in Information Security Technology Public and Commercial Service Systems, came into effect, which set forth detailed personal information protection requirements on data collection, data processing, data transfer and data creation. Although these guidelines are voluntary and non-binding, we believe that growing regulatory oversight of data privacy in China is inevitable. In addition, Amendment 7 to the PRC Criminal Law prohibits institutions, companies and their employees in the telecommunications and other industries from selling or otherwise illegally disclosing a citizen’s personal information obtained during the course of performing duties or providing services or obtaining such information through theft or other illegal ways. On November 7, 2016, the Standing Committee of the PRC National People’s Congress issued the Cyber Security Law of the PRC, which became effective on June 1, 2017. Pursuant to the Cyber Security Law of the PRC, providers of network products and services shall provide security maintenance for their products and services and shall comply with provisions regarding the protection of personal information as stipulated under the relevant laws and regulations. Moreover, the Provisions on Protection of Personal Information of Telecommunication and Internet Users is the specific regulation governing the collection, use, disclosure and security of personal information. Complying with these PRC laws and regulations may cause us to incur substantial costs or require us to change our business practices. Furthermore, the Personal Information Security Specification, or the China Specification, came into force on May 1, 2018. Although the China Specification is not a mandatory regulation, it nonetheless has a key implementing role in relation to China’s Cyber Security Law in respect of protecting personal information in China. It is likely that the China Specification will be relied on by Chinese government agencies as a standard to determine whether businesses have abided by China’s data protection rules. The China Specification has broadened the scope of personal sensitive information, or PSI, including but not limited to phone number, transaction record and purchase history, bank account, browse history, and e-ID info such as system account, email address and corresponding password, and thus, the application of explicit consent under the China Specification is more far reaching. Furthermore, under the China Specification, the data controller must provide the purpose of collecting and using subject personal information, as well as business functions of such purpose, and the China Specification requires the data controller to distinguish its core function from additional functions to ensure the data controller will only collect personal information as needed. Our failure to comply with the China Specification could result in governmental enforcement actions, litigation, fines and penalties, which could have a material adverse effect on our business, results of operations, financial condition and prospects.

In Hong Kong, the Hong Kong Personal Data Ordinance prohibits an internet company collecting information about its users, analyzing the information for a profile of the user's interests or selling or transmitting the profiles to third parties for direct marketing purposes unless it has obtained the user's consent.

In the U.S., all 50 states have now passed laws to regulate the actions that a business must take in the event of a data breach, such as prompt disclosure and notification to affected users and regulatory authorities. In addition to the data breach notification laws, some states have also enacted statutes and rules requiring businesses to reasonably protect certain types of personal information they hold or to otherwise comply with certain specified data security requirements for personal information. Additionally, the U.S. government has announced that it is reviewing the need for greater regulation of the collection of consumer information, including regulation aimed at restricting some targeted advertising practices.

In the European Union, or EU, to the extent it is applicable to the processing operations carried out in the course of our activities, the General Data Protection Regulation, or the GDPR, which became applicable on May 25, 2018, has a broad territorial scope affecting the processing of personal data by companies outside of the EU offering goods and services to, or monitoring the behavior of, individuals in the EU. The GDPR introduces new obligations for subject companies in the area of privacy and data protection. The GDPR implements more stringent legal and operational requirements for both processors and controllers of personal data, including, for example, requiring expanded disclosures about how personal information is to be used, limitations on retention of information, new rights for data subjects with respect to their data (including by enabling them to exercise rights to erasure and data portability), mandatory data breach notification requirements, and higher standards for data controllers to demonstrate that they have obtained either valid consent or have another legal basis in place to justify their data processing activities. The GDPR further provides that EU member states may make their own additional laws and regulations in relation to certain data processing activities, which could further limit our ability to use and share personal data and could require localized changes to our operating model. Under the GDPR, fines of up to a 20 million or up to 4% of the total worldwide annual turnover of the preceding financial year, whichever is higher, may be imposed in certain cases of non-compliance. Since the GDPR has just recently become applicable, the potential risks associated with non-compliance therewith are uniquely difficult to predict. Moreover and to the extent the GDPR is applicable, the implementation of the GDPR may require amendments to our procedures and policies or the agreements we have with our service providers and clients, and these changes could impact our business by increasing its operational and compliance costs. The EU has also released a proposed Regulation on Privacy and Electronic Communications, or the e-Privacy Regulation, to replace the EU's current Privacy and Electronic Communications Directive, or the e-Privacy Directive, to, among other things, achieve a greater harmonization among EU member states and better align the rules governing electronic communications (e.g., in relation to the use of cookies and other tracking technologies and protection against spam) with the requirements of the GDPR. While the ePrivacy Regulation was originally intended to be adopted on May 25, 2018 (alongside the GDPR), it is still going through the European legislative process and commentators now expect it to be adopted by the end of 2020. The current draft of the ePrivacy Regulation imposes strict opt-in e-marketing rules with limited exceptions to business to business communications and significantly increases fining powers to the same levels as GDPR of cookies and web beacons may lead to broader restrictions on our online activities, including efforts to understand followers' internet usage and promote ourselves to them.

Outside of the U.S. and the EU, many jurisdictions have adopted or are adopting new data privacy and data protection laws that may impose further onerous compliance requirements, such as data localization, which prohibits companies from storing outside the jurisdiction data relating to resident individuals in data centers outside the jurisdiction. The proliferation of such laws within the jurisdictions and countries in which we operate may result in conflicting and contradictory requirements, particularly in relation to evolving technologies such as cloud computing. Any failure to successfully navigate the changing regulatory landscape could result in legal liability or impairment to our reputation in the marketplace, which could have a material adverse effect on our business and operations.

While we strive to comply with all applicable laws and regulations relating to privacy and data collection, processing, use, and disclosure applicable to us, it is possible that our practices are and will continue to be, inconsistent with certain regulatory requirements. These laws and regulations are continually evolving, are not always clear, and are not always consistent across the jurisdictions in which we do business, and the measures we take to comply with these laws, regulations and industry standards may not always be effective. We may be subject to litigation or enforcement action or reduced demand for our solutions if we or our marketers fail to abide by applicable data protection and privacy laws or to provide adequate notice and/or obtain consent from end users. In addition, some of our content distribution channels require us to indemnify and hold them harmless from the costs or consequences of litigation resulting from using their networks. Any proceeding, claims or lawsuits initiated by governmental bodies, customers or other third parties, whether meritorious or not, or perception of concerns relating to our collection, use, disclosure, and retention of data, including our security measures applicable to the data we collect, whether or not valid, could harm our reputation, force us to spend significant amounts and time on defense of these proceedings, give rise to significant fines, liabilities and damage awards, distract our management, change our business practices, increase our costs of doing business, inhibit the use of our solutions, harm our ability to keep existing customers or attract new customers, or otherwise materially and adversely affect our business, results of operations and prospects.

***We are subject to, and may expend significant resources in defending against, government actions and civil claims in connection with false, fraudulent, misleading or otherwise illegal marketing content for which we provide design, production or agency services.***

Under PRC Advertising Law, where an advertising operator provides advertising design, production or agency services with respect to an advertisement when it knows or should have known that the advertisement is false, fraudulent, misleading or otherwise illegal, the competent PRC authority may confiscate the advertising operator's advertising revenue from such services, impose penalties, order it to cease dissemination of such false, fraudulent, misleading or otherwise illegal advertisement or correct such advertisement, or suspend or revoke its business licenses under certain serious circumstances.

Under the PRC Advertising Law, "advertising operators" include any natural person, legal person or other organization that provides advertising design, production or agency services to advertisers for their advertising activities. Since our solutions involve provision of agency services to marketers, including helping them identify, engage and convert audience, and create content catering to their potential clients across different content distribution channels, we are deemed as an "advertising operator" under the PRC Advertising Law. Therefore, we are required to examine advertising content for which we provide agency services for compliance with applicable laws, notwithstanding the fact that the advertising content may have been previously published, and that the advertisers also bear liabilities for the content in their advertisements. In addition, for advertising content related to certain types of products and services, such as alcohol, cosmetics, pharmaceuticals and medical procedures, we are expected to confirm that the advertisers have obtained requisite government approvals, including operating qualifications, proof of quality inspection for the advertised products, government pre-approval of the content of the advertisements and filings with the local authorities. Although we have established internal policies to review and vet advertising content before it is placed on a content distribution channel to ensure compliance with applicable laws, we cannot ensure that each advertisement for which we provide agency services complies with all PRC laws and regulations relevant to advertising activities, that supporting documentation provided by our clients is authentic or complete, or that we are able to identify and rectify all non-compliances in a timely manner.

Moreover, civil claims may be filed against us for fraud, defamation, subversion, negligence, copyright or trademark infringement or other violations due to the nature and content of the information for which we provide design, production or agency services. For example, we generally represent and warrant in our contracts with content distribution channels as to the truthfulness of the advertising content that we place on these channels, and agree to indemnify the content distribution channels for any losses resulting from false, fraudulent, misleading or otherwise illegal advertising content that we place on these content distribution channels. On the other hand, not all our marketing campaign contracts contain a back-to-back representation and warranty as to the truthfulness of the advertising content or an indemnity provision where the clients undertake to hold us harmless in case we incur losses arising out of any false, fraudulent, misleading or otherwise illegal advertising content. In the event we are subject to government actions or civil claims in connection with false, fraudulent, misleading or otherwise illegal marketing content for which we provide agency services, our reputation, business and results of operations may be materially and adversely affected.

***If we are not able to grow efficiently to meet our clients' increasing needs, our operating results could be harmed.***

As usage of our solutions grows, we will need to devote additional resources to improving our system infrastructure. In addition, we will need to appropriately scale our internal business systems and our services organization, including account servicing staff, to serve marketers' growing demands. We cannot assure you these improvements and expansions to our infrastructure and staff will be fully or effectively implemented on a timely basis, if at all. Even if we are able to upgrade our systems and expand our staff, such expansion may be expensive and complex and require our management's time and attention. We could also face inefficiencies or operational failures as a result of our efforts to scale our infrastructure and expand our staff. Any of these could impair the performance of our platform, reduce customer satisfaction and lead to client departure, which could harm our reputation and adversely affect our business and results of operations.

***If we fail to offer high-quality account services, our business and reputation may suffer.***

Our success in marketing and sale of our solutions and retention and expansion of client base depends on our ability to maintain a consistently high level of customer services, client education and technical support, which requires that our account servicing personnel have specific marketing domain knowledge and expertise. If we are unable to hire and train a sufficient number of support staff to provide effective and timely support to our clients, our clients' appreciation of, or satisfaction with, our solutions may be adversely affected, resulting in reduced client spending or departure and adversely affect our reputation and materially and adversely affect our business and results of operations.

***If we fail to offer high-quality technical support services under enterprise solutions, our relationships with our clients and our financial results may be adversely affected.***

Our clients on enterprise solution will depend on our support organization to resolve technical issues relating to our applications. We may be unable to respond quickly enough to accommodate short-term increases in their demand for support services. Increased demand for these services, without corresponding revenues, could increase costs and adversely affect our operating results. In addition, our sales growth can be highly dependent on our applications and business reputation and on positive recommendations from clients. Any failure to maintain high-quality technical support, or a market perception that we do not maintain high-quality support, could adversely affect our reputation, our ability to sell our service offerings to existing and prospective customers, and our business, operating results and financial position.

***If we fail to innovate, adapt and respond timely and effectively to rapidly changing technologies and new trends in online marketing, our solutions may become less competitive or obsolete.***

Our future success will depend on our ability to continuously innovate, enhance and broaden our solutions to meet evolving marketing needs, and address technological advancements and new trends in online marketing, in particular the growing popularity of online marketing via mobile channel. We may not be able to timely identify and respond to these new trends. The design of mobile devices and operating systems is controlled by third parties with which we do not have any formal relationship. These parties frequently introduce new devices, and from time to time they may introduce new operating systems or modify existing ones. Network carriers may also restrict our ability to access specific content on mobile devices. If we fail to innovate or adapt our technologies and solutions so that they are compatible with these devices or operating systems, which in turn require that we maintain adequate research and development personnel and resources, our solutions may become less competitive or obsolete. In addition, any new solution that we develop may not receive wide acceptance as we anticipated. Any of these events could materially and adversely affect our business, results of operations and prospects.

***If we are unable to protect our proprietary information or other intellectual property, our business could be adversely affected.***

As of December 31, 2019, we held two patents and 40 computer software copyrights in China, and 22 registered trademarks in China and Hong Kong. We rely on a combination of trademark and trade secret laws, and contractual restrictions, including through confidentiality, non-disclosure and assignment of invention assignment agreements with our key employees, consultants and third parties with whom we do business, to establish, maintain and protect our proprietary information and other intellectual property. Policing any misappropriation, unauthorized use or reverse engineering our proprietary information and other intellectual property is difficult and costly and the steps we have taken may be inadequate. For example, contractual restrictions may be breached, and we may not succeed in enforcing our rights or have adequate remedies for any breach of laws or contractual restrictions. In addition, we may not be able to enter into agreements or arrangements with everyone who has access to our proprietary information or contributes to the development of our intellectual property. Moreover, our trade secrets may be disclosed to or otherwise become known or be independently developed by competitors, and in these situations we may have no or limited rights to stop others' use of our information.

Furthermore, to the extent that our employees, consultants or other third parties with whom we do business use intellectual property owned by others in their work for us, disputes may arise as to the rights to such intellectual property. If, for any of the above reasons, our intellectual property is disclosed or misappropriated, it would have an adverse effect on our business, financial condition and results of operations.

***Our business may suffer if it is alleged or determined that our technologies or any other aspects of our business infringe on the intellectual property rights of others.***

As we continue to expand and as litigation or other similar proceedings become more common in resolving commercial disputes, we face a higher risk of being subject to intellectual property infringement claims. Companies in the internet, technology and media industries are increasingly bringing and becoming subject to suits alleging infringement of proprietary rights. The validity, enforceability and scope of protection of intellectual property rights in internet-related industries are uncertain and evolving. In particular, our registered or unregistered trademarks or trade names may be challenged, infringed, circumvented, declared generic or determined to be infringing on other marks. At times, third parties may adopt trade names or trademarks similar to those of ours, thereby impeding our ability to build brand identity and possibly leading to market confusion. In addition, there could be potential trade name or trademark infringement claims brought by owners of other registered or unregistered trademarks that are similar to our registered or unregistered trademarks or trade names. If a third party has been using in commerce any mark that is confusingly similar to our trade names or trademarks, or has registered any such marks, prior to our use or registration of our trade names or trademarks, such third party could potentially bring infringement claims against us depending on the territory of the use or registration. Any such claim would require us to incur significant costs to defend, and if we are unsuccessful, we may be subject to an injunction and/or required to pay significant damages or spend significant time and resources to rebrand any relevant products or services.

We have received in the past, and expect to receive in the future, notices that claim we have infringed, misappropriated or misused other parties' trademark and other intellectual property rights. For example, in January 2015, iClick, Inc., a company incorporated in the state of Washington in the United States and the owner of a U.S. registered trademark for the term "iClick" filed an action in the United States District Court for the District of Colorado against one of our subsidiaries in Hong Kong, iClick Interactive Asia Limited, alleging trademark and trade name infringement and unfair competition, among others. The basis of iClick Inc.'s claims arose from iClick Interactive Asia Limited's use of the name iClick in the United States. We believe these claims lacked merit, primarily because the parties offer different goods and services, and therefore any chance of consumer confusion is remote. However, to avoid the costs and uncertainty of litigation, we settled the lawsuit in January 2016. Furthermore, we have not conducted any trademark clearance searches in the United States nor have we obtained any registrations or filed any applications for the registration of our trade names or trademarks in the United States. Although common law and federal law in the United States provide unregistered mark in use in the United States with protection against infringement, such protection is only limited to the geographic areas where such mark is in use. Therefore, we may not be able to effectively enforce and protect our trade names or trademark throughout the United States. Any litigation or other proceedings on intellectual property rights could be costly, time-consuming, divert management resources, and may impede our ability to use existing or develop new technologies or expand into new markets, any of which could have a material adverse effect upon our business and results of operations.

***Past and future acquisitions, strategic investments, partnership or alliance could be difficult to integrate, divert the attention of key management personnel, disrupt our business, dilute shareholder value and adversely affect our results of operations and financial condition.***

In July 2015, we acquired OptAim, a mobile marketing business. Since the acquisition, we have substantially expanded our mobile marketing business, with OptAim's complementary mobile analytics, attribution technologies, and content distribution channel partners that allow marketers to track and optimize marketing campaigns on mobile channels.

In November 2018, we made a controlling investment in Myhayo, a content distribution channel and a mobile content aggregator of articles and short videos in the PRC, which presents customized feeds to users via its mobile application, as we seeks to increase our market shares in the PRC online marketing segment, particularly in relation to mobile platforms.

In January 2019, we made a controlling investment in Changyi, as we seeks to extend our client solutions beyond the core digital marketing business, addressing enterprise needs in China, particularly in the emerging area of New Retail—an expanding and innovative market involving the combination of online and offline solutions. There can be no assurance that we will successfully enhance our enterprise solutions and go beyond our core digital marketing business by integrating, utilizing and leveraging Changyi's intelligent retail and CRM solutions, which may adversely affect our ability to achieve growth and business objectives, and have a material effect upon our business and results of operations.

In February 2020, we agreed to make a controlling investment in Optimal Power Limited, a subsidiary wholly owned by Creative Big Limited. As of the date of this annual report, we are still in the process of negotiating and finalizing the terms of a definitive agreement for this investment, and we expect to complete the investment in the second quarter of 2020. As part of the transaction, Creative Big Limited will inject certain premium media licensing assets into Optimal Power Limited covering a number of jurisdictions in Asia-Pacific. We believe this investment will broaden our content distribution channels and enrich offerings of our online marketing solutions. That said, we cannot assure you that any of these transactions will be executed or consummated on terms favorable or acceptable to us in a timely matter, or at all, or that this investment, if consummated, will enable us to achieve our expected business targets.

In addition, future acquisitions, strategic investments, partnerships or alliances could be difficult to integrate, divert the attention of key management personnel, disrupt our business, dilute shareholder value and adversely affect our business and results of operations. We have limited experience in acquiring and integrating businesses, products and technologies. If we identify an appropriate acquisition candidate, we may not be successful in negotiating the terms and/or financing of the acquisition, and our due diligence may fail to identify all of the problems, liabilities or other shortcomings or challenges of an acquired business, product or technology, including issues related to intellectual property, product quality or architecture, regulatory compliance practices, revenue recognition or other accounting practices or employee or client issues. Any acquisition or investment may require us to use significant amounts of cash, issue potentially dilutive equity securities or incur debt. In addition, acquisitions, including our acquisitions of OptAim, our strategic investment in Changyi and Optimal Power Limited, involve numerous risks, any of which could harm our business, including:

- difficulties in integrating the operations, technologies, services and personnel of acquired businesses, especially if those businesses operate outside of our core competency;
- cultural challenges associated with integrating employees from the acquired company into our organization;
- reputation and perception risks associated with the acquired product or technology by the general public;
- ineffectiveness or incompatibility of acquired technologies or solutions;
- potential loss of key employees of acquired businesses;

- inability to maintain the key business relationships and the reputations of acquired businesses;
- diversion of management’s attention from other business concerns;
- litigation for activities of the acquired company, including claims from terminated employees, clients, former shareholders or other third parties;
- failure to identify all of the problems, liabilities or other shortcomings or challenges of an acquired company, technology, or solution, including issues related to intellectual property, solution quality or architecture, regulatory compliance practices, revenue recognition or other accounting practices or employee or client issues;
- in the case of foreign acquisitions, the need to integrate operations across different cultures and languages and to address the particular economic, currency, political and regulatory risks associated with specific countries;
- costs necessary to establish and maintain effective internal controls for acquired businesses;
- failure to successfully further develop the acquired technology in order to recoup our investment; and
- increased fixed costs.

If we are unable to successfully fully integrate any future business, product or technology we acquire, our business, financial condition and results of operations may suffer.

***We may be required to record significant impairment charges as a result of our acquisitions.***

As of December 31, 2019, we had US\$65.7 million goodwill, which represented approximately 20.4% of our total assets, the majority of which was related to OptAim and its subsidiaries, VIE and VIE’s subsidiary, which we acquired in 2015. Goodwill is recorded at fair value and is not amortized, but is reviewed for impairment at least annually or more frequently if impairment indicators arise. In evaluating the potential for impairment of goodwill, we make assumptions regarding future operating performance, business trends, and market and economic conditions. Such analyzes further require us to make judgmental assumptions about sales, operating margins, growth rates, and discount rates.

There are inherent uncertainties related to these factors and to management’s judgment in applying these factors to the assessment of goodwill recoverability. Any possible changes in our judgmental assumptions on which the recoverability of goodwill is based would cause a change in the recoverable amounts of goodwill. In addition, we could be required to evaluate the recoverability of goodwill prior to the annual assessment if there are any impairment indicators, including experiencing disruptions to the business, unexpected significant declines in operating results, divestiture of a significant component of our business or market capitalization declines, any of which could be caused by our failure to manage OptAim or other entities in which we have controlling investment, or to successfully integrate their operations with our other operations. Impairment charges could negatively affect our reported earnings and financial ratios in the periods of such charges and limit our ability to obtain financing in the future. See “Item 5. Operating and Financial Review and Prospects—A. Operating Results—Critical Accounting Policies—Impairment of Goodwill” for more information.

***If we do not appropriately maintain effective internal control over financial reporting in accordance with Section 404 of the Sarbanes-Oxley Act of 2002, we may be unable to accurately report our financial results and the market price of our ADSs may be adversely affected.***

As a public company in the United States, we are subject to Section 404 of the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, which requires that we include a report of management on our internal control over financial reporting in our annual report on Form 20-F beginning with our annual report for the fiscal year ended December 31, 2018. In addition, once we cease to be an “emerging growth company” as such term is defined in JOBS Act, our independent registered public accounting firm must attest to and report on the effectiveness of our internal control over financial reporting.

Our management has concluded that our internal control over financial reporting was not effective as of December 31, 2019. We and our independent registered public accounting firm identified two material weaknesses in our internal control over financial reporting. These two material weaknesses identified relate to (1) the lack of sufficient accounting personnel with appropriate understanding of U.S. GAAP and SEC reporting requirements, and (2) the lack of a comprehensive accounting policies and procedures manual to facilitate preparation of U.S. GAAP financial statements, which inhibits our subsidiaries’ ability to prepare consolidation from local books based on PRC GAAP and Hong Kong Financial Reporting Standards to their U.S. GAAP basis information for group financial reporting and imposes a risk that adjustments to U.S. GAAP are not identified in a timely manner. We have taken measures to remediate these weaknesses. In particular, we are in the process of hiring additional qualified accounting staff with an appropriate understanding of U.S. GAAP and SEC reporting requirements. Furthermore, we request our existing accounting personnel to complete external courses relating to U.S. GAAP and SEC reporting such that the accounting personnel can earn the necessary credentials to be qualified as certified public accountants in the U.S. In addition, we are in the process of establishing a

comprehensive accounting policies and procedures manual and providing internal training to accounting and operation staff in relation to these policies and procedures. See “Item 15. Controls and Procedures.” We cannot assure you, however, that these measures may fully address these deficiencies in our internal control over financial reporting or that we may conclude that they have been fully remedied. Our failure to correct these control deficiencies or our failure to discover and address any other control deficiencies could result in inaccuracies in our financial statements and could also impair our ability to comply with applicable financial reporting requirements and related regulatory filings on a timely basis. This could in turn result in the loss of investor confidence in the reliability of our financial statements. As a result of these, our business, financial condition, results of operations and prospects, as well as the trading price of our ADSs, may be materially and adversely affected. Moreover, ineffective internal control over financial reporting significantly hinders our ability to prevent fraud. Furthermore, we have incurred and may need to incur additional costs and use additional management and other resources in an effort to comply with Section 404 of the Sarbanes-Oxley Act and other requirements going forward.

In addition, our internal controls over financial reporting will not prevent or detect all errors or fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system’s objectives will be met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud will be detected.

***Failures or disruption in any systems, software or hardware infrastructure supporting our platform and solutions could significantly disrupt our operation and cause us to lose clients or partners.***

The optimal performance of our solutions relies on the continued and uninterrupted performance of our systems, software and hardware infrastructure, and security and integrity of our data. They are vulnerable to damages from a variety of sources, some of which are out of our control, including telecommunications failures, power outages, cyber-attacks, or other malicious human acts and natural disasters. Any steps we take to increase the reliability and redundancy of our systems, software and hardware infrastructure supporting our platform and solutions and to improve the security of our data assets may be expensive and may not be successful in preventing system failures or disruption. For example, techniques used to obtain unauthorized access to or sabotage our data or otherwise hack our systems change frequently and generally are not recognized until launched against a target. As a result, we may be unable to anticipate these techniques or to implement adequate preventative measures. Sustained or repeated failures or disruption in our systems, including from security breaches, whether actual or perceived, could significantly reduce the attractiveness of our solutions, harm our reputation, result in our liabilities and have a material adverse effect on our business and results of operations.

In addition, our business may be negatively affected by interruptions or delays in services provided by third-party system or infrastructure providers that we rely upon. We currently lease data centers and utilize related equipment and services from third-party data center providers. All of our data gathering and analytics are conducted on, and the marketing content we deliver are processed through, our servers located in these data centers and their cloud. We also rely on bandwidth providers and internet information service providers to deliver marketing content. While we have disaster recovery arrangements in place, our testing in actual disasters or similar events is limited and any damage to, or failure of, the systems or facilities of our third-party providers, including as a result of any occurrence of a natural disaster, an act of terrorism, vandalism or sabotage, a decision to close any data center or the facilities of any other third-party provider without adequate notice, or other unanticipated problems at these facilities, could adversely impact our ability to deliver our solution to marketers and have a material adverse effect on our business and results of operations.

***Our inability to use software licensed from third parties, including open source software could negatively affect our ability to sell our solutions and subject us to possible litigation.***

Our technology platform incorporates software licensed from third parties, including open source software, which we use without charge. Although we monitor our use of open source software, the terms of many open source licenses to which we are subject have not been interpreted by courts, and there is a risk that such licenses could be construed in a manner that imposes unanticipated conditions or restrictions on our ability to provide our solution to our clients. In addition, the terms of open source software licenses may require us to provide software that we develop using such software to others on unfavorable license terms. For example, certain open source licenses may require us to offer the components of our platform that incorporate the open source software for free, to make available source code for modifications or derivative works we create based upon, incorporating or using the open source software, and to license such modifications or derivative works under the terms of the particular open source license.

In the future, we could be required to seek licenses from third parties in order to continue offering our solution, in which case licenses may not be available on terms that are acceptable to us, or at all. Alternatively, we may need to re-engineer our solutions or discontinue use of portions of the functionality provided by our solutions. Our inability to use third-party software could result in disruptions to our business, or delays in the development of future offerings or enhancements of our existing platform, which could materially and adversely affect our business and results of operations.

***If we fail to detect fraud or serve marketers' marketing content on undesirable websites, our reputation will suffer, which would harm our brand and negatively impact our business and results of operations.***

Our business depends in part on providing marketers with solutions that they can trust, and we have contractual commitments to take reasonable measures to prevent marketer's marketing content from appearing on undesirable websites. We use proprietary technologies and third party services to detect click fraud and block inventory on websites with inappropriate content. However, technologies utilized by bad actors are constantly evolving. Preventing and combating fraud and inappropriate content requires constant vigilance and investment of time and resources. We may not always be successful in our efforts to do so. If we serve marketing content on websites that are objectionable to marketers, or inadvertently purchase content distribution opportunities for marketers that proves to be unacceptable for their marketing campaigns, such as fraudulent bot generated impressions, we may lose business and incur damages to our brand and reputation. In addition, we may be exposed to liabilities or the need to provide credits or refunds to our clients, and our business and results of operations may be harmed.

***Any negative publicity with respect to us, the online marketing industry in general or our partners may materially and adversely affect our reputation, business and results of operations.***

Complaints, litigation, regulatory actions or other negative publicity that arise about the online marketing industry in general or our company in particular, including on the quality, effectiveness and reliability of online marketing solutions, privacy and security practices, and online marketing content, even if inaccurate, could adversely affect our reputation and client confidence in, and the use of, our solutions. Harm to our reputation and client confidence can also arise for many other reasons, including employee misconduct, misconduct of our data and content distribution channel partners, data center providers or other counterparties, failure by these persons or entities to meet minimum quality standards or otherwise fulfill their contractual obligations or to comply with applicable laws and regulations. Additionally, negative publicity with respect to our data or content distribution channel partners could also affect our business and results of operation to the extent that we rely on these partners or if marketers or marketing agencies associate our company with such partners.

***If we fail to promote or maintain our brand in a cost-efficient manner, our business and results of operations may be harmed.***

We believe that developing and maintaining awareness of our brand in a cost-effective manner is critical to achieving widespread acceptance of our solutions, and is an important element in attracting new clients and partners. Furthermore, we believe that the importance of brand recognition will increase as competition in our market increases. Successful promotion of our brand will depend largely on our ability to deliver value propositions to marketers and on the effectiveness of our marketing efforts. In the past, our efforts to build our brand have involved significant expenses and promotion of our brand may be subject to restrictions and challenges. For example, as part of the settlement of the trademark infringement lawsuit brought by iClick, Inc. in January 2015, although we are free to use the term "iClick" in connection with our business in the United States, we are subject to ongoing obligations and restrictions to certain types of marketing and promotion that contain that term. In addition, our brand promotion activities may not yield increased revenue, and even if they do, any increased revenue may not offset the expenses we incurred in building our brand. If we fail to successfully promote and maintain our brand, or incur substantial expenses in an unsuccessful attempt to promote and maintain our brand, we may fail to attract enough new clients or retain our existing clients and our business and results of operations can be materially and adversely affected.

***Misconduct, errors and failure to function by our employees could harm our business and reputation.***

We are exposed to many types of operational risks, including the risk of misconduct and errors by our employees. Our business depends on our employees to process a large number of marketing campaigns orders, which involve the use of audience data and marketers' business information. We could be materially adversely affected if such data or information was disclosed to unintended recipients or if we experience an operational breakdown or failure in the processing of a marketing campaign whether as a result of human error, a purposeful sabotage or a fraudulent manipulation of our operations or systems. We could also be materially adversely affected if our employees absconded with our proprietary data or used our know-how to compete with us. Although employees have left our company in the past and may have violated the non-compete and non-solicitation clauses in their employment agreements with little impact on our business, future violations of these clauses could have a material adverse effect on our business. Any of these occurrences could result in our diminished ability to operate our business, potential liability to our clients, inability to attract future clients, reputational damage, regulatory intervention and financial harm, which could negatively impact our business and results of operations.

***We may not be able to obtain additional capital when desired, on favorable terms or at all.***

We intend to continue to make investments to support our business growth and may require additional funds, to respond to business challenges, including to better support and serve our clients and provide better terms for our clients to capture more market share, develop new features or enhance our platform and solutions, improve our operating and technology infrastructure or acquire complementary businesses and technologies. Accordingly, we may need to engage in public or private equity, equity-linked or debt financings to secure additional funds. If we raise additional funds through future issuances of equity or convertible debt securities, our

existing shareholders could suffer significant dilution, and any new equity securities we issue could have rights, preferences and privileges superior to those of holders of our ordinary shares. Any debt financing that we secure in the future could involve restrictive covenants relating to our capital raising activities and other financial and operational matters, including the ability to pay dividends. This may make it more difficult for us to obtain additional capital and to pursue business opportunities, including potential acquisitions. We may not be able to obtain additional financing on terms favorable to us, if at all. If we are unable to obtain adequate financing on terms satisfactory to us when we require it, our ability to continue to support our business growth and respond to business challenges could be significantly impaired, and our business and prospects could be adversely affected.

***If we do not retain our senior management team and key employees, or attract additional technology and sales talents, we may not be able to sustain our growth or achieve our business objectives.***

Our future success is substantially dependent on the continued service of our senior management team and key employees. Our management team is currently spread across multiple physical locations and geographies, which can strain the organization and make coordinated management more challenging. Our future success also depends on our ability to continue to attract, retain and motivate highly skilled employees, particularly employees with technical skills that enable us to deliver effective marketing solutions, and sales and marketing, and publisher development and support personnel with experience in online marketing. Competition for these employees in our industry is intense. As a result, we may be unable to attract or retain these management, technical, sales and marketing and publisher development and support personnel who are critical to our success, resulting in harm to our key marketer and publisher relationships, loss of key information, expertise or proprietary knowledge and unanticipated recruitment and training costs. The loss of the services of our senior management or other key employees could make it more difficult to successfully operate our business and pursue our business goals.

Increases in labor costs in the PRC may adversely affect our business and results of operations. Most of our employees are based in China. Chinese economy has experienced increases in inflation and labor costs in recent years. As a result, average wages in the PRC are expected to continue to increase. In addition, we are required by PRC laws and regulations to pay various statutory employee benefits, including pension, housing fund, medical insurance, work-related injury insurance, unemployment insurance and maternity insurance to designated government agencies for the benefit of our employees. We expect that our labor costs, including wages and employee benefits, will continue to increase. Unless we are able to control our labor costs or pass on these increased labor costs to our users by increasing the fees of our services, our financial condition and results of operations may be adversely affected.

***We do not have any business insurance coverage in China.***

Insurance companies in China currently do not offer as extensive an array of insurance products as insurance companies in more developed economies in China. Currently, we do not have any business liability or disruption insurance to cover our operations. We have determined that the costs of insuring for these risks and the difficulties associated with acquiring such insurance on commercially reasonable terms make it impractical for us to have such insurance. Any uninsured business disruptions may result in our incurring substantial costs and the diversion of resources, which could have an adverse effect on our business and results of operations.

#### **Risks Related to Our Corporate Structure**

***We rely on the contractual arrangements that establish the structure for certain of our operations in China and we will need to rely on the contractual arrangements when and to the extent our operations are deemed as foreign-related survey.***

Foreign ownership in advertising business used to be subject to certain restrictions under the PRC laws and regulations. For example, according to the Administrative Provisions on Foreign-Invested Advertising Enterprises, which were abolished in June 2015, foreign investors were required to meet several conditions in order to invest in PRC advertising business, such as a minimum number of years of advertising-related experience and an approval from the relevant PRC regulatory authority. OptAim, which we acquired in July 2015, is a Cayman Islands company and OptAim Beijing, its PRC subsidiary, is considered a foreign invested enterprise, or FIE. To comply with the then-effective PRC laws and regulations, including the Administrative Provisions on Foreign-Invested Advertising Enterprises, OptAim Beijing entered into a set of contractual arrangements with OptAim Network and its shareholders. For a detailed description of these contractual arrangements, see “Item 4. Information on the Company—C. Organizational Structure—Contractual Arrangements with OptAim Network.” As a result of these contractual arrangements, we exert control over OptAim Network and its subsidiaries, and consolidate their operating results in our financial statements under U.S. GAAP.

After the abolishment of the foreign ownership restriction in advertising business, we had been transferring the advertising business previously operated by our VIE, OptAim Network, primarily consisting of our mobile marketing solution business, to our wholly-owned subsidiaries. As of December 31, 2018, our wholly-owned subsidiaries had replaced OptAim Network as contracting party for all our mobile marketing solution business. In November 2018, OptAim Network made a controlling investment in Myhayo, a content distribution channel and a mobile content aggregator of articles and short videos in the PRC, which presents customized feeds to users via its mobile application. The mobile application operated by Myhayo allows users to earn points from their daily access, which could be used to redeem cash rewards. It is unclear whether Myhayo’s business model would render it a commercial

operator of value-added telecommunication services under the relevant PRC laws, in which case Myhayo would be required to hold a value-added telecommunication license. In August 2019, Myhayo obtained the value-added telecommunication license that has a validity term of five years. See “—Risk Related to Our Business and Industry—If we fail to maintain or renew the value-added telecommunication license, or fail to obtain other requisite license, or approvals or filings in China, the business carried out by certain consolidated entity may be materially and adversely affected.” Current PRC laws and regulations impose certain restriction on foreign investment in value-added telecommunication services. See “—Regulations—Regulations on Foreign Direct Investment in Value-Added Telecommunications Companies.” As a result, we made our controlling investment in Myhayo through OptAim Network, our VIE. In 2017, OptAim Network contributed 11.1% to our gross billing and 20.2% of our net revenues. In 2018, OptAim Network contributed 0.7% to our gross billing and 1.8% of our net revenues. In 2019, OptAim Network contributed 3.6% to our gross billing and 11.5% of our net revenues.

Under the Measures on the Administration of Foreign-related Surveys, or the Foreign-related Surveys Measures, promulgated by the National Bureau of Statistics of China on October 13, 2004, no individual or organization may conduct any foreign-related survey without a license for foreign-related survey granted by the National Bureau of Statistics in China or its local counterparts.

Under the Catalogue for the Guidance of Foreign Investment Industries, or Foreign Investment Catalog, promulgated by the Ministry of Commerce and National Development and Reform Commission on June 28, 2017, only a domestic enterprise or a sino-foreign enterprise which meets the several requirements stipulated in the Foreign-related Surveys Measures can apply for a license for the foreign-related survey. On October 24, 2019, MOFCOM and NDRC jointly promulgated the Special Administrative Measures (Negative List 2019) for Foreign Investment Access, or the Special Administrative Measures, which replaced the negative list attached to the Foreign Investment Catalog in 2018. Industries that are not listed in the Special Administrative Measures are permitted areas for foreign investments, and are generally open to foreign investment unless specifically restricted by other PRC regulations. We do not believe our collection and use of multiple kinds of data from multiple sources in China to improve the cost-effectiveness of marketing campaigns for marketers in and outside China fall within the scope of “foreign-related survey” under the Foreign-related Survey Measures listed under the Special Administrative Measures. However, there are uncertainties under the PRC Laws whether such activities may be deemed as “foreign-related survey,” which would require a foreign-related survey license from the National Bureau of Statistics in China or its local counterparts. In light of these uncertainties and out of prudence, we, through our VIE OptAim Network applied for and were granted a foreign-related survey license on June 6, 2017 by the Chinese National Bureau of Statistics. If the PRC regulatory authorities disagree with our interpretation of what would constitute foreign-related survey and enforcement practices on foreign-related survey licensing requirement or if we expand our business scope to engage in activities falling within the scope of foreign-related survey, we will need to continue to rely on OptAim Beijing’s contractual arrangements with OptAim Network and its shareholders to conduct certain of our operations in China, including to transfer such operations to our VIE to the extent they are deemed foreign-related survey.

In the opinion of our PRC counsel, Jingtian & Gongcheng, our current ownership structure, the ownership structure of our PRC subsidiaries, our consolidated variable interest entity and its subsidiary, and the contractual arrangements among OptAim Beijing, OptAim Network and the shareholders of OptAim Network are not in violation of existing PRC laws, rules and regulations; and these contractual arrangements are valid, binding and enforceable in accordance with their terms and applicable PRC laws and regulations currently in effect. However, Jingtian & Gongcheng has also advised us that there are substantial uncertainties regarding the interpretation and application of current or future PRC laws and regulations and there can be no assurance that the PRC government will ultimately take a view that is consistent with the opinion of our PRC counsel.

It is uncertain whether any new PRC laws, rules or regulations relating to variable interest entity structures will be adopted or if adopted, what they would provide. Please see “—Substantial uncertainties exist with respect to the newly enacted PRC Foreign Investment Law and how it may impact the viability of our current corporate structure, corporate governance and business operations.” for more information. If the ownership structure, contractual arrangements and business of our company, our PRC subsidiaries or our consolidated variable interest entity and its subsidiary are found to be in violation of any existing or future PRC laws or regulations, or we fail to obtain or maintain any of the required permits or approvals, the relevant governmental authorities would have broad discretion in dealing with such violation, including levying fines, confiscating our income or the income of our PRC subsidiaries, consolidated variable interest entity or its subsidiary, revoking the business licenses or operating licenses of our PRC subsidiaries, consolidated variable interest entity or its subsidiary, shutting down our servers or blocking our online platform, discontinuing or placing restrictions or onerous conditions on our operations, requiring us to undergo a costly and disruptive restructuring, restricting or prohibiting our use of proceeds from our initial public offering to finance our business and operations in China, and taking other regulatory or enforcement actions that could be harmful to our business. Any of these actions could cause significant disruption to our business operations and severely damage our reputation, which would in turn materially and adversely affect our business and results of operations. If any of these occurrences results in our inability to direct the activities of our consolidated variable interest entity and its subsidiary, and/or our failure to receive economic benefits from our consolidated variable interest entity and its subsidiary, we may not be able to consolidate their results into our consolidated financial statements in accordance with U.S. GAAP.

***We rely on contractual arrangements with our variable interest entity and its shareholders for certain of our business operations, which may not be as effective as direct ownership in providing operational control.***

We have relied and expect to continue to rely on contractual arrangements with our variable interest entity, OptAim Network, and its shareholders for part of our online marketing business on mobile channels in China, as well as certain other complementary businesses, and to the extent our operations are deemed as foreign-related survey. For a description of these contractual arrangements, see “Item 4. Information on the Company—C. Organizational Structure—Contractual Arrangements with OptAim Network.” These contractual arrangements may not be as effective as direct ownership in providing us with control over our consolidated variable interest entity and its subsidiary.

If we had direct ownership of OptAim Network and its subsidiaries, we would be able to exercise our rights as a shareholder to effect changes in the board of directors of OptAim Network and its subsidiaries, which in turn could implement changes, subject to any applicable fiduciary obligations, at the management and operational level. However, under the current contractual arrangements, we rely on the performance by OptAim Network and the shareholders of OptAim Network of their obligations under the contracts to exercise control over our consolidated variable interest entity and its subsidiaries. The shareholders of our consolidated variable interest entity may not act in the best interests of our company or may not perform their obligations under these contracts. Such risks exist throughout the period in which we intend to operate our business through the contractual arrangements with OptAim Network and its shareholders. In addition, if any third party claims any interest in such shareholders’ equity interests in OptAim Network, our ability to exercise shareholders’ rights or foreclose the share pledge according to the contractual arrangements may be impaired. Therefore, our contractual arrangements with our consolidated variable interest entity may not be as effective in ensuring our control over the relevant portion of our business operations as direct ownership would be.

***Any failure by our variable interest entity or its shareholders to perform their obligations under our contractual arrangements with them would have a material adverse effect on our business.***

If our consolidated variable interest entity or its shareholders fail to perform their respective obligations under the contractual arrangements, we may have to incur substantial costs and expend additional resources to enforce such arrangements. We may also have to rely on legal remedies under PRC laws, including seeking specific performance or injunctive relief, and claiming damages, which we cannot assure you will be effective under PRC laws. For example, if the shareholders of OptAim Network were to refuse to transfer their equity interest in OptAim Network to us or our designee if we exercise the purchase option pursuant to these contractual arrangements, or if they were otherwise to act in bad faith toward us, then we may have to take legal actions to compel them to perform their contractual obligations. In addition, if any third parties claim any interest in such shareholders’ equity interests in OptAim Network, our ability to exercise shareholders’ rights or foreclose the share pledge according to the contractual arrangements may be impaired.

All the agreements under our contractual arrangements are governed by PRC laws and provide for the resolution of disputes through arbitration in China. Accordingly, these contracts would be interpreted in accordance with PRC laws and any disputes would be resolved in accordance with PRC legal procedures. Such disputes do not include claims arising under the United States federal securities laws and therefore these arbitration provision do not prevent you from pursuing claims under the United States federal securities law. The legal system in the PRC is different from some other jurisdictions, such as the United States. As a result, uncertainties in the PRC legal system could limit our ability to enforce these contractual arrangements. Meanwhile, there are very few precedents and little formal guidance as to how contractual arrangements in the context of a consolidated variable interest entity should be interpreted or enforced under PRC laws. There remain significant uncertainties regarding the ultimate outcome of such arbitration should legal action become necessary. In addition, under PRC laws, rulings by arbitrators are final and parties cannot appeal arbitration results in court unless such rulings are revoked or determined unenforceable by a competent court. If the losing parties fail to carry out the arbitration awards within a prescribed time limit, the prevailing parties may only enforce the arbitration awards in PRC courts through arbitration award recognition proceedings, which would require additional expenses and delay. In the event that we are unable to enforce these contractual arrangements, or if we suffer significant delay or other obstacles in the process of enforcing these contractual arrangements, we may not be able to exert effective control over our consolidated variable interest entity and its subsidiary, and our ability to conduct our business may be negatively affected.

***The shareholders of our variable interest entity, may have potential conflicts of interest with us, which may materially and adversely affect our business and financial condition.***

The equity interests of OptAim Network are held by Mr. Jian Tang, who is our co-founder, director and chief executive officer, and Ms. Jie Jiao, who is our former chief financial officer. As of the date of this annual report, we are arranging the transfer of Ms. Jie Jiao’s equity interest in OptAim Network to an affiliate of our company. Their interests may differ from the interests of our company as a whole. These shareholders may breach, or cause our consolidated variable interest entity to breach, or refuse to renew the existing contractual arrangements we have with them and our consolidated variable interest entity, which would have a material adverse effect on our ability to effectively control our consolidated variable interest entity and receive economic benefits from them. For example, the shareholders may be able to cause our agreements with OptAim Network to be performed in a manner adverse to us by, among

other things, failing to remit payments due under the contractual arrangements to us on a timely basis. We cannot assure you that when conflicts of interest arise, any or all of these shareholders will act in the best interests of our company or such conflicts will be resolved in our favor.

Currently, we do not have any arrangements to address potential conflicts of interest between these shareholders and our company, except that we could exercise our purchase option under the second amended and restated exclusive option agreement with these shareholders to request them to transfer all of their equity interests in OptAim Network to a PRC entity or individual designated by us, to the extent permitted by PRC laws. If we cannot resolve any conflict of interest or dispute between us and the shareholders of OptAim Network, we would have to rely on legal proceedings, which could result in the disruption of our business and subject us to substantial uncertainty as to the outcome of any such legal proceedings.

***Contractual arrangements in relation to our variable interest entity may be subject to scrutiny by the PRC tax authorities and they may determine that we or our PRC variable interest entity owe additional taxes, which could negatively affect our results of operations and the value of your investment.***

Under applicable PRC laws and regulations, arrangements and transactions among related parties may be subject to audit or challenge by the PRC tax authorities within ten years after the taxable year when the transactions are conducted. The PRC Enterprise Income Tax law requires every enterprise in China to submit its annual enterprise income tax return together with a report on transactions with its related parties to the relevant tax authorities. The tax authorities may impose reasonable adjustments on taxation if they have identified any related party transactions that are inconsistent with arm's length principles. We may face material and adverse tax consequences if the PRC tax authorities determine that the contractual arrangements between our wholly-owned subsidiary OptAim Beijing, our variable interest entity OptAim Network and the shareholders of OptAim Network were not entered into on an arm's length basis in such a way as to result in an impermissible reduction in taxes under applicable PRC laws, rules and regulations, and adjust OptAim Network's income in the form of a transfer pricing adjustment. A transfer pricing adjustment could, among other things, result in a reduction of expense deductions recorded by OptAim Network for PRC tax purposes, which could in turn increase their tax liabilities without reducing OptAim Beijing's tax expenses. In addition, if OptAim Beijing requests the shareholders of OptAim Network to transfer their equity interests in OptAim Network at nominal or no value pursuant to these contractual arrangements, such transfer could be viewed as a gift and subject OptAim Beijing to PRC income tax. Furthermore, the PRC tax authorities may impose late payment fees and other penalties on OptAim Network for the adjusted but unpaid taxes according to the applicable regulations. Our results of operations could be materially and adversely affected if OptAim Network's tax liabilities increase or if they are required to pay late payment fees and other penalties.

***Substantial uncertainties exist with respect to the newly enacted PRC Foreign Investment Law and how it may impact the viability of our current corporate structure, corporate governance and business operations.***

On March 15, 2019, the National People's Congress approved the Foreign Investment Law, which came into effect on January 1, 2020 and replaced the trio of existing laws regulating foreign investment in China, namely, the Sino-foreign Equity Joint Venture Enterprise Law, the Sino-foreign Cooperative Joint Venture Enterprise Law and the Wholly Foreign-invested Enterprise Law, together with their implementation rules and ancillary regulations. The Foreign Investment Law embodies an expected PRC regulatory trend to rationalize its foreign investment regulatory regime in line with prevailing international practice and the legislative efforts to unify the corporate legal requirements for both foreign and domestic investments. On December 26, 2019, the State Council adopted the Implementing Rules for the Foreign Investment Law of the People's Republic of China, which took effect from January 1, 2020, to interpret and implement the Foreign Investment Law. However, uncertainties still exist in relation to the nature of "variable interest entity" structure. As a result, the Foreign Investment Law may materially impact the viability of our current corporate structure, corporate governance and business operations in many aspects.

Under the Foreign Investment Law, "foreign investment" refers to the investment activities directly or indirectly conducted by foreign individuals, enterprises or other entities in China. Though the Foreign Investment Law does not explicitly classify contractual arrangements as a form of foreign investment, there is no assurance that foreign investment via contractual arrangement would not be interpreted as a type of indirect foreign investment activities under the definition. In addition, the definition contains a catch-all provision which includes investments made by foreign investors through means stipulated in laws or administrative regulations or other methods prescribed by the State Council. Therefore, it still leaves leeway for future laws, administrative regulations or provisions promulgated by the State Council to provide for contractual arrangements as a form of foreign investment.

If our contractual arrangements is considered a form of foreign investment, then we may be required to complete the MOC market entry clearance, and we face uncertainties as to whether such clearance can be timely obtained, or at all. If we are not able to obtain such clearance when required, our VIE structure may be regarded as invalid and illegal. As a result, we would not be able to (a) continue our business in China through our contractual arrangements with the VIE and shareholders of the VIE, (b) exert control over the VIE, (c) receive the economic benefits of the VIE under such contractual arrangements, or (d) consolidate the financial results of the VIE. Were this to occur, our results of operations and financial condition would be materially and adversely affected and the market price of our ADSs may decline. Furthermore, if future laws, administrative regulations or provisions prescribed by the State Council mandate further actions to be taken by companies with respect to existing contractual arrangements, we may face

substantial uncertainties as to whether we can complete such actions in a timely manner, or at all. Failure to take timely and appropriate measures to cope with any of these or similar regulatory compliance challenges could materially and adversely affect our current corporate structure, corporate governance and business operations.

***If we exercise the option to acquire equity ownership of OptAim Network, the ownership transfer may subject us to certain limitation and substantial costs.***

Pursuant to the contractual arrangements, OptAim Beijing has the exclusive right to purchase all or any part of the equity interests in OptAim Network from OptAim Network's shareholders for a nominal price, unless the relevant government authorities or then applicable PRC laws request that a minimum price amount be used as the purchase price, in such case the purchase price shall be the lowest amount under such request. The shareholders of OptAim Network will be subject to PRC individual income tax on the difference between the equity transfer price and the then current registered capital of our consolidated variable interest entity. Additionally, if such a transfer takes place, the competent tax authority may require OptAim Beijing to pay enterprise income tax for ownership transfer income with reference to the market value, in which case the amount of tax could be substantial.

## **Risks Related to Doing Business in China**

***Uncertainties in the interpretation and enforcement of PRC laws and regulations could limit the legal protections available to us.***

The PRC legal system is based on written statutes. Unlike common law legal systems, prior court decisions may be cited for reference but have limited precedential value. The PRC legal system evolves rapidly, and the interpretations of many laws, regulations and rules may contain inconsistencies and enforcement of these laws, regulations and rules involves uncertainties.

From time to time, we may have to resort to administrative and court proceedings to enforce our legal rights. However, since PRC administrative and court authorities have significant discretion in interpreting and implementing statutory and contractual terms, it may be more difficult to evaluate the outcome of administrative and court proceedings and the level of legal protection we enjoy than in more developed legal systems. Furthermore, the PRC legal system is based in part on government policies and internal rules (some of which are not published in a timely manner or at all) that may have retroactive effect. As a result, we may not be aware of our violation of these policies and rules until sometime after the violation. Such uncertainties, including uncertainty over the scope and effect of our contractual, property (including intellectual property) and procedural rights, could materially and adversely affect our business and impede our ability to continue our operations. Litigation in China may be protracted and result in substantial costs and diversion of resources and management attention.

***We are subject to many of the economic and political risks associated with emerging markets due to our operation in China. Changes in China's economic, political or social conditions or government policies could have a material adverse effect on our business and results of operations.***

Our primary operations are based in, and a substantial percentage of our revenue is generated from China, the world's largest emerging market. In light of our operations in an emerging market. We may be subject to risks and uncertainties including fluctuations in GDP, unfavorable or unpredictable treatment in relation to tax matters, expropriation of private assets, exchange controls, restrictions affecting our ability to make cross-border transfer of funds, regulatory proceedings, inflation, currency fluctuations or the absence of, or unexpected changes in, regulations and unforeseeable operational risks. In addition, our business, prospects, financial condition and results of operations may be influenced to a significant degree by political, economic and social conditions in China generally and by continued economic growth in China as a whole.

The Chinese economy differs from the economies of most developed countries in many respects, including the amount of government involvement, level of development, growth rate, control of foreign exchange and allocation of resources. Although the PRC government has implemented measures emphasizing the utilization of market forces for economic reform, the reduction of state ownership of productive assets and the establishment of improved corporate governance in business enterprises, a substantial portion of productive assets in China is still owned by the government. In addition, the PRC government continues to play a significant role in regulating industry development by imposing industrial policies. The PRC government also exercises significant control over China's economic growth through allocating resources, controlling payment of foreign currency-denominated obligations, setting monetary policy, and providing preferential treatment to particular industries or companies.

The economies of emerging markets are typically more vulnerable to market downturns and economic slowdowns elsewhere in the world. While the Chinese economy has experienced significant growth over the past decades, growth has been uneven, both geographically and among various sectors of the economy. The PRC government has implemented various measures to encourage economic growth and guide the allocation of resources. Some of these measures may benefit the overall PRC economy, but may have a negative effect on us. For example, our financial condition and results of operations may be adversely affected by government control over capital investments or changes in tax regulations. In addition, in the past the Chinese government has implemented certain measures, including interest rate increases, to control the pace of economic growth. These measures may cause decreased economic activity in China, and since 2012, the Chinese economy has slowed down. Any adverse changes in economic conditions in

China, in the policies of the PRC government or in the laws and regulations in China could have a material adverse effect on the overall economic growth of China. Such developments could adversely affect our business and operating results, lead to reduction in demand for our services and adversely affect our competitive position.

***A downturn in the Chinese or global economy could reduce the demand for our solutions, which could materially and adversely affect our business and results of operations.***

The global financial markets have experienced significant disruptions since 2008 and the United States, Europe and other economies have experienced periods of recession. The recovery from the lows of 2008 and 2009 has been uneven and is facing new challenges, including the escalation of the European sovereign debt crisis from 2011 and the slowdown of the Chinese economy since 2012. It is unclear whether the Chinese economy will resume its high growth rate.

Furthermore, the government of the United Kingdom held an in-or-out referendum on its membership in the European Union on June 23, 2016. The referendum resulted in a vote in favor of the exit of the United Kingdom from the European Union, or “Brexit.” On January 31, 2020, the United Kingdom ceased to be a member of the European Union. The effects of Brexit remain uncertain. Brexit could negatively impact the economies and market conditions of the European Union and/or worldwide, and could continue to contribute to instability in the global financial markets. To the extent we may seek to expand our business in the European market, the uncertainty surrounding the terms of the Brexit and its consequences could adversely impact our clients’ spending budget on our solutions, which could harm our results of operations.

There is considerable uncertainty over the long-term effects of the expansionary monetary and fiscal policies adopted by the central banks and financial authorities of some of the world’s leading economies, including the United States, China and Europe. More recently, the stock markets around the world have experienced extreme volatility, in reaction to the COVID-19 outbreak and governments’ responses thereto, including the recent rate reductions by the Federal Reserve. It is unclear whether these challenges and uncertainties will be contained or resolved, and what effects they may have on the global political and economic conditions in the long term. Economic conditions in China are sensitive to global economic conditions. Any prolonged slowdown in the global or Chinese economy may reduce the demand for our solutions and have a negative impact on our business, results of operations and financial condition. Additionally, continued turbulence in the international markets may adversely affect our ability to access the capital markets to meet liquidity needs.

***We rely on dividends and other distributions on equity paid by our PRC subsidiaries to fund any cash and financing requirements we may have, and any limitation on the ability of our PRC subsidiaries to make payments to us could have a material adverse effect on our ability to conduct our business.***

We are a Cayman Islands exempted limited liability company, used as a holding company, and we rely on dividends and other distributions on equity from our PRC subsidiaries for our cash requirements, including payment of dividends and other cash distributions to holders of our ordinary shares and services of any debt we may incur. If our PRC subsidiaries incur debt on their own behalf in the future, the instruments governing the debt may restrict their ability to pay dividends or make other distributions to us. Under PRC laws and regulations, our PRC subsidiaries, as wholly foreign-owned enterprises in China, may pay dividends only out of their respective accumulated after-tax profits as determined in accordance with PRC accounting standards and regulations. In addition, a wholly foreign-owned enterprise is required to set aside at least 10% of its accumulated after-tax profits each year, if any, to fund certain statutory reserve funds, until the aggregate amount of such funds reaches 50% of its registered capital. At its discretion, a wholly foreign-owned enterprise may allocate a portion of its after-tax profits based on PRC accounting standards to staff welfare and bonus funds. These reserve funds and staff welfare and bonus funds are not distributable as cash dividends.

In addition, the PRC tax authorities may require our PRC subsidiaries to adjust its taxable income under the contractual arrangements it currently has in place with our consolidated variable interest entity in a manner that would materially and adversely affect their ability to pay dividends and other distributions to us.

Any limitation on the ability of our PRC subsidiaries to pay dividends or make other distributions to us could materially and adversely limit our ability to grow, make investments or acquisitions that could be beneficial to our business, pay dividends, or otherwise fund and conduct our business.

***PRC regulation of loans to and direct investment in PRC entities by offshore holding companies and governmental control of currency conversion may delay or prevent us from using the proceeds of our offshore fundraisings to make loans to or make additional capital contributions to our PRC subsidiaries, which could materially and adversely affect our liquidity and our ability to fund and expand our business.***

Any funds we transfer to our PRC subsidiaries, either as a shareholder loan or as an increase in registered capital, are subject to approval by, registration or record filing with relevant governmental authorities in China. According to the relevant PRC regulations on foreign-invested enterprises in China, capital contributions to our PRC subsidiaries are subject to the requirement of making

necessary filings in the Foreign Investment Comprehensive Management Information System, or FICMIS, and registration with other governmental authorities in China. In addition, (a) any foreign loan procured by our PRC subsidiaries is required to be registered with the State Administration of Foreign Exchange, or SAFE, or its local branches, and (b) except as otherwise regulated by laws or regulations each of our PRC subsidiaries may procure loans which do not exceed the difference between its registered capital and its total investment amount as recorded in FICMIS, or as an alternative, do not exceed the upper limit as specified in the Notice of the People's Bank of China on Matters concerning the Macro-Prudential Management of Full-Covered Cross-Border Financing as promulgated by People's Bank of China, or the PBOC, on January 11, 2017. Any medium or long term loan to be provided by us to our variable interest entity must be recorded and registered by the NDRC and the SAFE or its local branches. We may not complete such recording or registrations on a timely basis, if at all, with respect to future capital contributions or foreign loans by us to our PRC subsidiaries. If we fail to complete such recording or registration, our ability to use the proceeds of our offering and to capitalize our PRC operations may be negatively affected, which could adversely affect our liquidity and our ability to fund and expand our business.

In 2008, SAFE promulgated the Circular on the Relevant Operating Issues Concerning the Improvement of the Administration of the Payment and Settlement of Foreign Currency Capital of Foreign-Invested Enterprises, or SAFE Circular 142, which used to regulate the conversion by foreign-invested enterprises of foreign currency into Renminbi by restricting the usage of converted Renminbi. On March 30, 2015, SAFE promulgated the Circular on Reforming the Management Approach Regarding the Foreign Exchange Capital Settlement of Foreign-Invested Enterprises, or SAFE Circular 19. SAFE Circular 19 took effect as of June 1, 2015 and superseded SAFE Circular 142 on the same date. SAFE Circular 19 launched a nationwide reform of the administration of the settlement of the foreign exchange capitals of foreign-invested enterprises and allows foreign-invested enterprises to settle their foreign exchange capital at their discretion, but continues to prohibit foreign-invested enterprises from using the Renminbi fund converted from their foreign exchange capitals for expenditure beyond their business scopes, investment in security market, offering of entrustment loans or purchase of any investment properties. On June 9, 2016, the Notice of the State Administration of Foreign Exchange on Reforming and Standardizing the Administrative Provisions on Capital Account Foreign Exchange Settlement, or SAFE Circular 16, was promulgated. In addition to restating the general principles of SAFE Circular 19, SAFE Circular 16 explicitly stipulates that foreign debts and repatriated funds raised through overseas listings as foreign exchange receipts can be settled discretely. SAFE Circular 16 continues to prohibit foreign-invested enterprises from using the Renminbi funds converted from their foreign exchange capitals for expenditures beyond their business scopes, investments in security market, offerings of entrustment loans or purchases of any investment properties. Although SAFE Circular 16 further relaxes the control over foreign exchange settlement of capital accounts, in practice, there are still several specific requirements that limit the abilities of PRC enterprises to access the offshore financing capitals, which may adversely affect our business, financial condition and operating results.

***Fluctuations in exchange rates could have a material adverse effect on our results of operations and the price of our ADSs.***

The value of the Renminbi against the U.S. dollar and other currencies may fluctuate and is affected by, among other things, changes in political and economic conditions in China and by China's foreign exchange policies. On July 21, 2005, the PRC government changed its decade-old policy of pegging the value of the Renminbi to the U.S. dollar, and the Renminbi appreciated more than 20% against the U.S. dollar over the following three years. Between July 2008 and June 2010, this appreciation halted and the exchange rate between the Renminbi and the U.S. dollar remained within a narrow band. Since June 2010, the Renminbi has fluctuated against the U.S. dollar, at times significantly and unpredictably. On November 30, 2015, the Executive Board of the International Monetary Fund (IMF) completed the regular five-year review of the basket of currencies that make up the Special Drawing Right, or the SDR, and decided that with effect from October 1, 2016, Renminbi is determined to be a freely usable currency and will be included in the SDR basket as a fifth currency, along with the U.S. dollar, the Euro, the Japanese yen and the British pound. For U.S. dollars against Renminbi, there was depreciation of approximately 6.3%, appreciation of approximately 5.7% and appreciation of approximately 1.3% in 2017, 2018 and 2019, respectively. With the development of the foreign exchange market and progress towards interest rate liberalization and Renminbi internationalization, the PRC government may in the future announce further changes to the exchange rate system and we cannot assure you that the Renminbi will not appreciate or depreciate significantly in value against the U.S. dollar in the future. It is difficult to predict how market forces or PRC or U.S. government policy may impact the exchange rate between the Renminbi and the U.S. dollar in the future. In addition, the People's Bank of China may, from time to time, release policies and measures concerning the foreign exchange market to limit fluctuations in Renminbi exchange rates and for other policy considerations.

A substantial portion of our revenues and costs are denominated in Renminbi, whereas our reporting currency is the U.S. dollar. Any significant depreciation of the Renminbi may materially and adversely affect our revenues, earnings and financial position as reported in U.S. dollars. To the extent that we need to convert U.S. dollars we receive from our offshore fundraisings into Renminbi for our operations, appreciation of the Renminbi against the U.S. dollar would have an adverse effect on the Renminbi amount we would receive from the conversion. Conversely, if we decide to convert our Renminbi into U.S. dollars for the purpose of making payments for dividends on our ordinary shares or ADSs or for other business purposes, appreciation of the U.S. dollar against the Renminbi would have an adverse effect on the U.S. dollar amount available to us.

We estimate that a 10% depreciation of Renminbi against the U.S. dollar based on the foreign exchange rate on December 31, 2017 would result in a decrease of US\$10.4 million and US\$9.4 million in our net revenues and cost of revenues in 2017, respectively; a 10% depreciation of Renminbi against the U.S. dollar based on the foreign exchange rate on December 31, 2018 would result in a decrease of US\$14.1 million and US\$11.6 million in our net revenues and cost of revenues in 2018, respectively; and a 10% depreciation of Renminbi against the U.S. dollar based on the foreign exchange rate on December 31, 2019 would result in a decrease of US\$19.6 million and US\$15.9 million in our net revenues and cost of revenues in 2019, respectively.

Very limited hedging options are available in China to reduce our exposure to exchange rate fluctuations. To date, we have not entered into any hedging transactions in an effort to reduce our exposure to foreign currency exchange risk. While we may decide to enter into hedging transactions in the future, the availability and effectiveness of these hedges may be limited and we may not be able to adequately hedge our exposure or at all. In addition, our currency exchange losses may be magnified by PRC exchange control regulations that restrict our ability to convert Renminbi into foreign currency.

***Governmental control of currency conversion may limit our ability to utilize our revenues effectively and affect the value of your investment.***

The PRC government imposes controls on the convertibility of the Renminbi into foreign currencies and, in certain cases, the remittance of currency out of China. We receive a substantial portion of our revenues in Renminbi. Under our current corporate structure, our company in the Cayman Islands relies on dividend payments from our PRC subsidiaries and HK subsidiaries to fund any cash and financing requirements we may have. Under existing PRC foreign exchange regulations, payments of current account items, such as profit distributions and trade and service-related foreign exchange transactions, can be made in foreign currencies without prior approval from the SAFE by complying with certain procedural requirements. Therefore, our PRC subsidiaries are able to pay dividends in foreign currencies to us without prior approval from the SAFE, subject to the condition that the remittance of such dividends outside of the PRC complies with certain procedures under PRC foreign exchange regulation, such as the overseas investment registrations by the beneficial owners of our company who are PRC residents. However, approval from or registration with appropriate government authorities is required where the Renminbi is to be converted into foreign currency and remitted out of China to pay capital expenses such as the repayment of loans denominated in foreign currencies, as enterprises shall duly file the cross-border financing contracts according to the Circular of the People's Bank of China on Matters relating to the Macro-prudential Management of Full-covered Cross-border Financing for the Issuance of Foreign Debts by Enterprise, or Circular on Management of Cross-border Financing, effective on January 12, 2017, and any medium or long term loan to be provided by foreign entities to domestic enterprises must be recorded and registered by the National Development and Reform Committee, or the NDRC, according to the Circular on Promoting the Administrative Reform of the Record-filing and Registration System for the Issuance of Foreign Debts by Enterprises, or Circular on Promoting the Administrative Reform, by the NDRC on September 14, 2015.

In light of the flood of capital outflows of China in 2016 due to the weakening Renminbi, the PRC government has imposed more restrictive foreign exchange policies and stepped up scrutiny of major outbound capital movement. More restrictions and substantial vetting process are put in place by the SAFE to regulate cross-border transactions falling under the capital account. The PRC government may at its discretion further restrict access in the future to foreign currencies for current account transactions. If the foreign exchange control system prevents us from obtaining sufficient foreign currencies to satisfy our foreign currency demands, we may not be able to pay dividends in foreign currencies to our shareholders, including holders of our ADSs.

***PRC regulations relating to investments in offshore special purposes companies by PRC residents may subject our PRC-resident beneficial owners or our PRC subsidiaries to liability or penalties, limit our ability to inject capital into our PRC subsidiaries or limit our PRC subsidiaries' ability to increase their registered capital or distribute profits.***

The SAFE promulgated the Circular on Relevant Issues Concerning Foreign Exchange Control on Domestic Residents' Offshore Investment and Financing and Roundtrip Investment through Special Purpose Vehicles, or SAFE Circular 37, on July 4, 2014. SAFE Circular 37 requires PRC residents to register with the local SAFE branches in connection with their direct establishment or indirect control of any offshore entity, referred to in SAFE Circular 37 as a "special purpose vehicle," for the purpose of overseas investment and financing with such PRC residents' legally owned assets or equity interests in domestic enterprises or offshore assets or interests. SAFE Circular 37 requires further registrations in the event of any significant changes with respect to the special purpose vehicle, such as increase or decrease of capital contributed by PRC individuals, share transfer or exchange, merger, division or other material events. In the event that a PRC shareholder holding interests in a special purpose vehicle fails to fulfill this required SAFE registration, the PRC subsidiaries of that special purpose vehicle may be prohibited from making profit distributions to the offshore parent and from carrying out subsequent cross-border foreign exchange activities, and it may be restricted from contributing additional capital into its PRC subsidiaries. Moreover, failure to comply with the various SAFE registration requirements described above could result in liabilities under PRC law for evasion of foreign exchange controls. According to the Notice on Further Simplifying and Improving Policies for the Foreign Exchange Administration of Direct Investment released on February 13, 2015 by the SAFE, local banks shall examine and handle foreign exchange registration for overseas direct investment, including the initial foreign exchange registration and amendment registration under SAFE Circular 37 since June 1, 2015. Beneficial owners of the special purpose vehicle who are PRC citizens are also required to make annual filing with the local banks regarding their overseas direct investment status.

Moreover, we do not have control over our beneficial owners and may not be aware of the identities of all of our beneficial owners. We cannot assure you that all of our PRC-resident beneficial owners comply with SAFE Circular 37 and subsequent implementation rules. The failure of our beneficial owners who are PRC residents to register or amend their foreign exchange registrations in a timely manner pursuant to SAFE Circular 37 and subsequent implementation rules, or the failure of future beneficial owners of our company who are PRC residents to comply with the registration procedures set forth in SAFE Circular 37 and subsequent implementation rules, may subject such beneficial owners or our PRC subsidiaries to fines and legal sanctions. Failure to register or comply with relevant requirements may also limit our ability to contribute capital to our PRC subsidiaries and limit our PRC subsidiaries' ability to distribute dividends to us. These risks may have a material adverse effect on our business, financial condition and results of operations.

***The M&A rules and certain other PRC regulations establish complex procedures for some acquisitions of Chinese companies by foreign investors, which could make it more difficult for us to pursue growth through acquisitions in China.***

Among other things, the Regulations on Mergers and Acquisitions of Domestic Enterprises by Foreign Investors, or the M&A rules, established additional procedures and requirements that could make merger and acquisition activities by foreign investors more time-consuming and complex. Such regulation requires, among other things, that the MOFCOM be notified in advance of any change-of-control transaction in which a foreign investor acquires control of a PRC domestic enterprise or a foreign company with substantial PRC operations, if certain thresholds under the Provisions on Thresholds for Prior Notification of Concentrations of Undertakings, issued by the State Council in 2008, were triggered.

Moreover, the Anti-Monopoly Law promulgated by the Standing Committee of the National People's Congress of the PRC, which became effective in 2008 requires that transactions which are deemed concentrations and involve parties with specified turnover thresholds must be cleared by MOFCOM before they can be completed. In addition, the Notice of the General Office of the State Council on Establishing the Security Review System for Mergers and Acquisitions of Domestic Enterprises by Foreign Investors which became effective in March 2011 requires acquisitions by foreign investors of PRC companies engaged in military related or certain other industries that are crucial to national security be subject to security review before consummation of any such acquisition. We may pursue potential strategic acquisitions that are complementary to our business and operations. Complying with the requirements of these regulations to complete such transactions could be time-consuming, and any required approval processes, including obtaining approval or clearance from the MOFCOM, may delay or inhibit our ability to complete such transactions, which could affect our ability to expand our business or maintain our market share.

***Any failure to comply with PRC regulations regarding the registration requirements for employee stock incentive plans may subject the PRC plan participants or us to fines and other legal or administrative sanctions.***

Pursuant to SAFE Circular 37, PRC residents who participate in share incentive plans in overseas non-publicly-listed companies may submit applications to the SAFE or its local branches for the foreign exchange registration with respect to offshore special purpose companies. In the meantime, our directors, executive officers and other employees who are PRC citizens or who are non-PRC residents residing in the PRC for a continuous period of not less than one year, subject to limited exceptions, and who have been granted incentive share awards by us, may follow the Notices on Issues Concerning the Foreign Exchange Administration for Domestic Individuals Participating in Stock Incentive Plan of Overseas Publicly-Listed Company, promulgated by SAFE in 2012, or the 2012 SAFE Notices. Pursuant to the 2012 SAFE Notices, PRC citizens and non-PRC citizens who reside in China for a continuous period of not less than one year who participate in any stock incentive plan of an overseas publicly listed company, subject to a few exceptions, are required to register with SAFE through a domestic qualified agent, which could be the PRC subsidiaries of such overseas listed company, and complete certain other procedures. In addition, an overseas entrusted institution must be retained to handle matters in connection with the exercise or sale of stock options and the purchase or sale of shares and interests. We and our executive officers and other employees who are PRC citizens or who reside in the PRC for a continuous period of not less than one year and who have been granted options are subject to these regulations. Failure to complete SAFE registrations may subject them to fines, and legal sanctions and may also limit our ability to contribute additional capital into our PRC subsidiaries and limit our PRC subsidiaries' ability to distribute dividends to us. We also face regulatory uncertainties that could restrict our ability to adopt additional incentive plans for our directors, executive officers and employees under PRC law. See "Item 4. Information On the Company—B. Business Overview—Regulation—Regulations on Foreign Exchange—Equity Incentive Plans."

The State Administration of Taxation, or SAT, has issued certain circulars concerning employee share options and restricted shares. Under these circulars, our employees working in China who exercise share options or are granted restricted shares will be subject to PRC individual income tax. Our PRC subsidiaries have obligations to file documents related to employee share options or restricted shares with relevant tax authorities and to withhold individual income taxes of those employees who exercise their share options. If our employees fail to pay or we fail to withhold their income taxes according to relevant laws and regulations, we may face sanctions imposed by the tax authorities or other PRC governmental authorities. See "Item 4. Information On the Company—B. Business Overview—Regulation—Regulations on Foreign Exchange—Equity Incentive Plans."

***Failure to make adequate contributions to various employee benefit plans as required by PRC regulations may subject us to penalties.***

Companies operating in China are required to participate in various government sponsored employee benefit plans, including certain social insurance, housing funds and other welfare-oriented payment obligations, and contribute to the plans in amounts equal to certain percentages of salaries, including bonuses and allowances, of our employees up to a maximum amount specified by the local government from time to time at locations where we operate our businesses. The requirement of employee benefit plans has not been implemented consistently by the local governments in China given the different levels of economic development in different locations. We have not made adequate employee benefit payments. We may be required to make up the contributions for these plans as well as to pay late fees and fines. If we are subject to late fees or fines in relation to the underpaid employee benefits, our financial condition and results of operations may be adversely affected.

***If we are classified as a PRC resident enterprise for PRC income tax purposes, such classification could result in unfavorable tax consequences to us and our non-PRC shareholders or ADS holders.***

Under the PRC Enterprise Income Tax Law, or the EIT law, and its implementation rules, an enterprise established outside of the PRC with a “de facto management body” within the PRC is considered a resident enterprise and will be subject to the enterprise income tax on its global income at the rate of 25%. The implementation rules define the term “de facto management body” as the body that exercises full and substantial control over and overall management of the business, productions, personnel, accounts and properties of an enterprise. In April 2009, the SAT issued the Notice Regarding the Determination of Chinese-Controlled Offshore Incorporated Enterprises as PRC Tax Resident Enterprises on the Basis of De Facto Management Bodies, as amended on December 29, 2017, known as Circular 82, which provides certain specific criteria for determining whether the “de facto management body” of a PRC-controlled enterprise that is incorporated offshore is located in China. Although this circular applies only to offshore enterprises controlled by PRC enterprises or PRC enterprise groups, not those controlled by PRC individuals or foreigners like us, the criteria set forth in the circular may reflect the SAT’s general position on how the “de facto management body” test should be applied in determining the tax resident status of all offshore enterprises. According to Circular 82, an offshore incorporated enterprise controlled by a PRC enterprise or a PRC enterprise group will be regarded as a PRC tax resident by virtue of having its “de facto management body” in China and will be subject to PRC enterprise income tax on its global income only if all of the following conditions are met: (a) the primary location of the day-to-day operational management is in the PRC; (b) decisions relating to the enterprise’s financial and human resource matters are made or are subject to approval by organizations or personnel in the PRC; (c) the enterprise’s primary assets, accounting books and records, company seals, and board and shareholder resolutions, are located or maintained in the PRC; and (d) at least 50% of voting board members or senior executives habitually reside in the PRC.

We believe none of our entities outside of China is a PRC resident enterprise for PRC tax purposes. See “Item 10. Additional Information—E. Taxation—People’s Republic of China Taxation.” However, the tax resident status of an enterprise is subject to determination by the PRC tax authorities and uncertainties remain with respect to the interpretation of the term “de facto management body”. As a majority of our management members are based in China, it remains unclear how the tax residency rule will apply to our case. If the PRC tax authorities determine that iClick Interactive Asia Group Limited or any of our subsidiaries outside of China is a PRC resident enterprise for PRC enterprise income tax purposes, then iClick Interactive Asia Group Limited or such subsidiary could be subject to PRC tax at a rate of 25% on its world-wide income, which could materially reduce our net income. In addition, we will also be subject to PRC enterprise income tax reporting obligations. Furthermore, income and any gains realized in respect to our ordinary shares or ADSs may be deemed by the PRC tax authorities as income or gain, as the case may be, arising from sources within the PRC, as described immediately below.

***You may be subject to PRC income tax on dividends from us or on any gain realized on the transfer of our ordinary shares.***

Under the EIT Law and its implementation rules, subject to any applicable tax treaty or similar arrangement between the PRC and our shareholders’ jurisdictions of residence that provide for a different income tax arrangement, PRC withholding tax at the rate of 10% is generally applicable to dividends from PRC sources paid to shareholders that are non-PRC resident enterprises, which do not have an establishment or place of business in the PRC, or which have such establishment or place of business but the relevant income is not effectively connected with the establishment or place of business. Any gain realized on the transfer of shares by such shareholders is subject to 10% PRC income tax if such gain is regarded as income derived from sources within the PRC unless a treaty or similar arrangement otherwise provides. Under the PRC Individual Income Tax Law and its implementation rules, dividends from sources within the PRC paid to foreign individual investors who are not PRC residents are generally subject to a PRC withholding tax at a rate of 20% and gains from PRC sources realized by such investors on the transfer of shares are generally subject to 20% PRC income tax, in each case, subject to any reduction or exemption set forth in applicable tax treaties and PRC laws.

As described in the preceding risk factor, there is a risk that we will be treated by the PRC tax authorities as a PRC tax resident enterprise. In that case, dividend income and gains from sales of our shares or ADSs may be treated as PRC source income or gains subject to the PRC taxes described above.

If PRC income tax is imposed on gains realized on the transfer of our ordinary shares or ADSs or on dividends paid to our non-resident shareholders or ADS holders, the value of your investment in our ordinary shares or ADSs may be materially and adversely affected. Furthermore, our shareholders or ADS holders whose jurisdictions of residence have tax treaties or arrangements with China may not qualify for benefits under such tax treaties or arrangements.

***We may not be able to obtain certain benefits under relevant tax treaty on dividends paid by our PRC subsidiaries to us through our Hong Kong subsidiaries.***

We are an exempted limited liability company, used as holding company, incorporated under the laws of the Cayman Islands and as such rely on dividends and other distributions on equity from our PRC subsidiaries, as paid to us through our Hong Kong subsidiaries, to satisfy part of our liquidity requirements. Pursuant to the PRC EIT Law, a withholding tax rate of 10% currently applies to dividends paid by a PRC “resident enterprise” to a foreign enterprise investor, unless any such foreign investor’s jurisdiction of incorporation has a tax treaty with China that provides for preferential tax treatment. Pursuant to the Arrangement between the Mainland China and the Hong Kong Special Administrative Region for the Avoidance of Double Taxation and Tax Evasion on Income, or the Double Tax Avoidance Arrangement, and Circular 81 issued by the SAT, such withholding tax rate may be lowered to 5% if the PRC enterprise is at least 25% held by a Hong Kong enterprise throughout the 12 months prior to distribution of the dividends and is determined by the relevant PRC tax authority to have satisfied other requirements. Furthermore, under the Administrative Measures for Non-Resident Enterprises to Enjoy Treatments under Tax Treaties, which became effective in August 2015, the non-resident enterprises shall determine whether they are qualified for preferential tax treatment under the tax treaties and file relevant reports and materials with the tax authorities. There are also other conditions for benefiting from the reduced withholding tax rate according to other relevant tax rules and regulations. See “Item 10. Additional Information—E. Taxation—People’s Republic of China Taxation.” We cannot assure you that our determination regarding our Hong Kong subsidiaries’ qualification to benefit from the preferential tax treatment will not be challenged by the relevant PRC tax authority or that we will be able to complete the necessary filings with the relevant PRC tax authority and benefit from the preferential withholding tax rate of 5% under the Double Taxation Avoidance Arrangement with respect to dividends to be paid by our PRC subsidiaries to our Hong Kong subsidiaries.

***We face uncertainties with respect to indirect transfers of equity interests in PRC resident enterprises by their non-PRC holding companies.***

Pursuant to the Notice on Strengthening Administration of Enterprise Income Tax for Share Transfers by Non-PRC Resident Enterprises, or SAT Circular 698, issued by the SAT in 2009 with retroactive effect from January 1, 2008, where a non-resident enterprise transfers the equity interests of a PRC resident enterprise indirectly by disposition of the equity interests of an overseas holding company, or an Indirect Transfer, and such overseas holding company is located in a tax jurisdiction that: (a) has an effective tax rate less than 12.5% or (b) does not tax foreign income of its residents, the non-resident enterprise, being the transferor, shall report to the competent tax authority of the PRC resident enterprise this Indirect Transfer.

On February 3, 2015, the SAT issued a Public Notice Regarding Certain Corporate Income Tax Matters on Indirect Transfer of Properties by Non-Resident Enterprises, or SAT Public Notice 7. SAT Public Notice 7 supersedes the rules with respect to the Indirect Transfer under SAT Circular 698, but does not touch upon the other provisions of SAT Circular 698, which remain in force. SAT Public Notice 7 has introduced a new tax regime that is significantly different from the previous one under SAT Circular 698 (Article V and Article VI). SAT Public Notice 7 extends its tax jurisdiction to not only Indirect Transfers set forth under SAT Circular 698 but also transactions involving transfer of other taxable assets through offshore transfer of a foreign intermediate holding company. In addition, SAT Public Notice 7 provides clearer criteria than SAT Circular 698 for assessment of reasonable commercial purposes and has introduced safe harbors for internal group restructurings and the purchase and sale of equity through a public securities market. SAT Public Notice 7 also brings challenges to both foreign transferor and transferee (or other person who is obligated to pay for the transfer) of taxable assets. Where a non-resident enterprise transfers taxable assets indirectly by disposing of the equity interests of an overseas holding company (other than by way of sale of equity securities traded on a public market), which is an Indirect Transfer, the non-resident enterprise as either transferor or transferee, or the PRC entity that directly owns the taxable assets, may report such Indirect Transfer to the relevant tax authority. Using a “substance over form” principle, the PRC tax authority may disregard the existence of the overseas holding company if it lacks a reasonable commercial purpose and was established for the purpose of reducing, avoiding or deferring PRC tax. As a result, gains derived from such Indirect Transfer may be subject to PRC enterprise income tax, and the applicable taxes will be withheld from payments to the transferor, currently at a rate of 10%. Both the transferor and the PRC entity that directly owns the taxable assets, or the withhold agent, may be subject to penalties under PRC tax laws if the withhold agent fails to withhold the taxes and the transferor fails to pay the taxes.

We face uncertainties as to the reporting and other implications of certain past and future transactions where PRC taxable assets are involved, such as offshore restructuring, sale of the shares in our offshore subsidiaries or investments. Our company may be subject to filing obligations or taxed or subject to withholding obligations in such transactions, under SAT Circular 698 and SAT Public Notice 7. For transfer of shares in our company by investors that are non-PRC resident enterprises, our PRC subsidiaries may be requested to assist in the filing under SAT Circular 698 and SAT Public Notice 7. As a result, we may be required to expend valuable resources to comply with SAT Circular 698 and SAT Public Notice 7 or to request the relevant transferors from whom we purchase taxable assets to comply with these circulars, or to establish that our company should not be taxed under these circulars, which may have a material adverse effect on our financial condition and results of operations.

***Proceedings instituted by the SEC against China-based “big four” accounting firms, including our independent registered public accounting firm, could result in financial statements being determined to not be in compliance with the requirements of the Exchange Act.***

Starting in 2011 the PRC-based “big four” accounting firms, including the PRC-based network firm of our independent registered public accounting firm, were affected by a conflict between U.S. and Chinese law. Specifically, for certain U.S.-listed companies operating and audited in mainland China, the SEC and the Public Company Accounting Oversight Board (United States), or the PCAOB, sought to obtain from the Chinese firms access to their audit work papers and related documents. The firms were, however, advised and directed that under Chinese law, they could not respond directly to the U.S. regulators on those requests, and that requests by foreign regulators for access to such papers in China had to be channeled through the CSRC. In December 2012, this impasse led the SEC to commence administrative proceedings under Rule 102(e) of its Rules of Practice and also under the Sarbanes-Oxley Act of 2002 against the China-based “big four” accounting firms, including our independent registered public accounting firm, alleging that these firms had violated U.S. securities laws and the SEC’s rules and regulations thereunder by failing to provide to the SEC the firms’ audit work papers with respect to certain PRC-based companies that are publicly traded in the United States. On January 22, 2014, the administrative law judge, or the ALJ, presiding over the matter rendered an initial decision that each of the firms had violated the SEC’s rules of practice by failing to produce audit papers and other documents to the SEC. The initial decision censured each of the firms and barred them from practicing before the SEC for a period of six months. On February 6, 2015, before a review by the Commissioner had taken place, the firms reached a settlement with the SEC. Under the settlement, the SEC accepted that future requests by the SEC for the production of documents will normally be made to the CSRC. The firms were to receive matching Section 106 requests, and were required to abide by a detailed set of procedures with respect to such requests, which in substance require them to facilitate production via the CSRC. If they failed to meet specified criteria, the SEC retained authority to impose a variety of additional remedial measures on the firms depending on the nature of the failure.

Under the terms of the settlement, the underlying proceeding against the China-based “big four” accounting firms was deemed dismissed with prejudice four years after entry of the settlement. The four-year mark occurred on February 6, 2019. We cannot predict if the SEC will further challenge China-based “big four” accounting firms’ compliance with U.S. law in connection with U.S. regulatory requests for audit work papers or if the results of such a challenge would result in the SEC imposing penalties such as suspensions. If additional remedial measures are imposed on the China-based “big four” accounting firms, including our independent registered public accounting firm, we could be unable to timely file future financial statements in compliance with the requirements of the Exchange Act.

In the event that the China-based “big four” become subject to additional legal challenges by the SEC or PCAOB, depending upon the final outcome, listed companies in the United States with major PRC operations may find it difficult or impossible to retain auditors in respect of their operations in the PRC, which could result in financial statements being determined to not be in compliance with the requirements of the Exchange Act, including possible delisting. Moreover, any negative news about any such future proceedings against these audit firms may cause investor uncertainty regarding China-based, U.S.-listed companies and the market price of our common stock may be adversely affected.

As part of a continued regulatory focus in the United States on access to audit and other information currently protected by national law, in particular China’s, in June 2019, a bipartisan group of lawmakers introduced bills in both houses of the U.S. Congress that would require the SEC to maintain a list of issuers for which the PCAOB is not able to inspect or investigate an auditor report issued by a foreign public accounting firm. The Ensuring Quality Information and Transparency for Abroad-Based Listings on Our Exchanges (EQUITABLE) Act prescribes increased disclosure requirements for these issuers and, beginning in 2025, the delisting from U.S. national securities exchanges such as NASDAQ Global Market of issuers included on the SEC’s list for three consecutive years. Enactment of this legislation or other efforts to increase U.S. regulatory access to audit information could cause investor uncertainty for affected issuers, including us, and the market price of our ADSs could be adversely affected.

If our independent registered public accounting firm was denied, even temporarily, the ability to practice before the SEC and we were unable to timely find another registered public accounting firm to audit and issue an opinion on our financial statements, our financial statements could be determined not to be in compliance with the requirements of the Exchange Act. Such a determination could ultimately lead to the delisting of the ADSs from Nasdaq or deregistration from the SEC, or both, which would substantially reduce or effectively terminate the trading of the ADSs in the United States.

***Our auditor, like other independent registered public accounting firms operating in China, is not permitted to be subject to inspection by Public Company Accounting Oversight Board, and consequently investors may be deprived of the benefits of such inspection.***

Our auditor, the independent registered public accounting firm that issued the audit reports included elsewhere in this annual report, as an auditor of companies that are traded publicly in the United States and a firm registered with PCAOB, is subject to laws in the United States pursuant to which the PCAOB conducts regular inspections to assess its compliance with applicable professional standards. Our auditor is located in China, and organized under the laws of, the PRC, which is a jurisdiction where the PCAOB has been unable to conduct inspections without the approval of the Chinese authorities. In May 2013, PCAOB announced that it had entered into a Memorandum of Understanding on Enforcement Cooperation with the CSRC and the PRC Ministry of Finance, which establishes a cooperative framework between the parties for the production and exchange of audit documents relevant to investigations undertaken by PCAOB, the CSRC or the PRC Ministry of Finance in the United States and the PRC, respectively. PCAOB continues to be in discussions with the China Securities Regulatory Commission, or CSRC, and the PRC Ministry of Finance to permit joint inspections in the PRC of audit firms that are registered with PCAOB and audit Chinese companies that trade on U.S. exchanges.

On December 7, 2018, the SEC and the PCAOB issued a joint statement highlighting continued challenges faced by the U.S. regulators in their oversight of financial statement audits of U.S.-listed companies with significant operations in China. In a statement issued on December 9, 2019, the SEC reiterated concerns over the inability of the PCAOB to conduct inspections of the audit firm work papers with respect to U.S.-listed companies that have operations in China, and emphasized the importance of audit quality in emerging markets, such as China. On April 21, 2020, the SEC and the PCAOB issued a new joint statement, reminding the investors that in many emerging markets, including China, there is substantially greater risk that disclosures will be incomplete or misleading and, in the event of investor harm, substantially less access to recourse, in comparison to U.S. domestic companies, and stressing again the PCAOB's inability to inspect audit work papers in China and its potential harm to investors. However, it remains unclear what further actions, if any, the SEC and PCAOB will take to address the problem.

This lack of PCAOB inspections in China prevents the PCAOB from fully evaluating audits and quality control procedures of our independent registered public accounting firm. As a result, we and investors in our ordinary shares are deprived of the benefits of such PCAOB inspections. The inability of the PCAOB to conduct inspections of auditors in China makes it more difficult to evaluate the effectiveness of our independent registered public accounting firm's audit procedures or quality control procedures as compared to auditors outside of China that are subject to PCAOB inspections, which could cause investors and potential investors in our stock to lose confidence in our audit procedures and reported financial information and the quality of our financial statements.

### **Risks Related to Our American Depositary Shares**

#### ***The market price for our ADSs may be volatile.***

Since our ADSs became listed on NASDAQ Global Market on December 21, 2017, the trading price of our ADSs has ranged from US\$2.81 to US\$9.94 per ADS. The trading prices of our ADSs are volatile and could fluctuate widely due to factors beyond our control. This may happen because of broad market and industry factors, like the performance and fluctuation in the market prices or the underperformance or deteriorating financial results of other listed internet or other companies based in China that have listed their securities in the United States in recent years. The securities of some of these companies have experienced significant volatility since their initial public offerings, including, in some cases, substantial price declines in their trading prices. The trading performances of other Chinese companies' securities after their offerings may affect the attitudes of investors toward Chinese companies listed in the United States, which consequently may impact the trading performance of our ADSs, regardless of our actual operating performance. Furthermore, as a result of the narrow band of our ADSs publicly available for trading, small trades can cause significant percentage changes in valuation in a short time period. Such volatility may affect the attitude of investors towards our securities, which consequently may impact the trading performance of our ADSs, regardless of our actual operating performance. In addition, any negative news or perceptions about inadequate corporate governance practices or fraudulent accounting, corporate structure or other matters of other Chinese companies may also negatively affect the attitudes of investors towards Chinese companies in general, including us, regardless of whether we have conducted any inappropriate activities. Furthermore, securities markets may from time to time experience significant price and volume fluctuations that are not related to our operating performance, such as the large decline in share prices in the United States, China and other jurisdictions in late 2008, early 2009 and the second half of 2011, which may have a material adverse effect on the market price of our ADSs.

In addition to the above factors, the price and trading volume of our ADSs may be highly volatile due to multiple other factors, including the following:

- regulatory developments affecting us, our clients and end marketers, or our industry;
- conditions in the online marketing industry;

- fluctuation of our results of operations from quarter to quarter due to seasonality in online marketing business, which may be affected by the online spending cycles of consumers and marketers' practices in marketing budget allocation;
- announcements of studies and reports relating to the quality of our solutions and service offerings or those of our competitors;
- changes in the economic performance or market valuations of other providers of online marketing solutions;
- actual or anticipated fluctuations in our quarterly results of operations and changes in or revisions to our expected results;
- changes in financial estimates by securities research analysts;
- announcements by us or our competitors of new product and service offerings, acquisitions, strategic relationships, joint ventures or capital commitments;
- additions to or departures of our senior management;
- detrimental negative publicity about us, our management or our industry;
- fluctuations of exchange rates between Renminbi and the U.S. dollar;
- release or expiry of lock-up or other transfer restrictions on our outstanding ordinary shares or ADSs;
- sales or perceived potential sales of additional ordinary shares or ADSs; and
- potential litigation or regulatory investing actions.

Any of these factors may result in large and sudden changes in the volume and price at which our ADSs will trade.

In the past, shareholders of public companies have often brought securities class action suits against those companies following periods of instability in the market price of their securities. If we were involved in a class action suit, it could divert a significant amount of our management's attention and other resources from our business and operations and require us to incur significant expenses to defend the suit, which could harm our results of operations. Any such class action suit, whether or not successful, could harm our reputation and restrict our ability to raise capital in the future. In addition, if a claim is successfully made against us, we may be required to pay significant damages, which could have a material adverse effect on our financial condition and results of operations.

***Our dual-class share structure with different voting rights will limit your ability to influence corporate matters and could discourage others from pursuing any change of control transactions that holders of our Class A ordinary shares and ADSs may view as beneficial.***

We have a dual-class share structure such that our ordinary shares consist of Class A ordinary shares and Class B ordinary shares. In respect of matters requiring the votes of shareholders, holders of Class A ordinary shares are entitled to one vote per share, while holders of Class B ordinary shares are entitled to 20 votes per share based on our dual-class share structure. Our ADSs represent Class A ordinary shares. Each Class B ordinary share is convertible into one Class A ordinary share at any time by the holder thereof, while Class A ordinary shares are not convertible into Class B ordinary shares under any circumstances. Upon any transfer of Class B ordinary shares by a holder thereof to any person or entity which is not an affiliate of such holder, such Class B ordinary shares shall be automatically and immediately converted into the equal number of Class A ordinary shares.

As of the date of this annual report, Mr. Sammy Hsieh and Mr. Jian Tang beneficially own an aggregate of 4,820,608 Class B ordinary shares. Due to the disparate voting powers associated with our dual-class share structure, Mr. Hsieh and Mr. Tang, collectively beneficially owned approximately 75.2% of the aggregate voting power of our company as of March 31, 2020. See "Item 6. Directors, Senior Management and Employees—E. Share Ownership." As a result of the dual-class share structure and the concentration of ownership, Mr. Hsieh and Mr. Tang will have considerable influence over matters such as decisions regarding change of directors, mergers, change of control transactions and other significant corporate actions. They may take actions that are not in the best interest of us or our other shareholders. This concentration of ownership may discourage, delay or prevent a change in control of our company, which could have the effect of depriving our other shareholders of the opportunity to receive a premium for their shares as part of a sale of our company and may reduce the price of our ADSs. This concentrated control will limit your ability to influence corporate matters and could discourage others from pursuing any potential merger, takeover or other change of control transactions that holders of Class A ordinary shares and ADSs may view as beneficial.

***Our directors, officers and principal shareholders have substantial influence over our company and their interests may not be aligned with the interests of our other shareholders.***

Our directors and officers collectively owned an aggregate of 75.2% of the total voting power of our outstanding ordinary shares as of March 31, 2020. See “Item 6. Directors, Senior Management and Employees—E. Share Ownership.” As a result, they have substantial influence over our business, including significant corporate actions such as change of directors, mergers, change of control transactions and other significant corporate actions.

They may take actions that are not in the best interest of us or our other shareholders. This concentration of ownership may discourage, delay or prevent a change in control of our company, which could deprive our shareholders of an opportunity to receive a premium for their shares as part of a sale of our company and may reduce the price of the ADSs. These actions may be taken even if they are opposed by our other shareholders, including ADS holders. In addition, the significant concentration of share ownership may adversely affect the trading price of the ADSs due to investors’ perception that conflicts of interest may exist or arise.

***We have granted, and may continue to grant, share incentives, which may result in increased share based compensation expenses.***

We adopted a stock option plan in 2010, or the 2010 Plan. We adopted another share incentive plan in 2017, or the 2017 Plan, which was renamed as the Post-IPO Share Incentive Plan in May 2018, or the Post-IPO Plan. We also adopted the 2018 Share Incentive Plan in May 2018, or the 2018 Plan, which replaces and reproduces the 2010 Plan in its entirety and assumes all awards granted under the 2010 Plan, or the 2018 Plan, and the 2010 Plan was terminated as a result. The purpose of these plans is to grant share-based compensation awards to employees, directors and advisors to incentivize their performance and align their interests with ours. In addition, in December 2016, our board of directors and shareholders authorized the issuance of 1,068,114 restricted Class A ordinary shares to Mr. Jian Tang and certain other employees in China upon the fulfillment of certain performance conditions in 2017, and the issuance of 801,086 restricted Class A ordinary shares to Mr. Jian Tang and certain other employees in China upon the fulfillment of certain performance conditions in 2018. Since the performance conditions were not fulfilled in 2017 and 2018, the 1,068,114 and 801,086 restricted Class A ordinary shares were not issued to Mr. Jian Tang and certain other employees. We account for compensation costs for all share incentives using a fair-value based method and recognize expenses in our consolidated statements of comprehensive loss in accordance with U.S. GAAP.

Under our 2018 Plan, the maximum aggregate number of Class A ordinary shares which may be issued pursuant to all awards under the plan is 2,398,137. As of March 31, 2020, options to purchase 632,055 Class A ordinary shares were outstanding under our 2018 Plan, including unvested options to purchase 6,728 Class A ordinary shares, and vested and unexercised options to purchase 625,327 Class A ordinary shares.

On September 22, 2018, our board of directors of the Registrant approved an increase of 1,500,000 Class A ordinary shares to the award pool under the Post-IPO Plan. As a result, the maximum number of ordinary shares which may be issued pursuant to all awards under the Post-IPO Plan shall initially be 2,500,000 Class A ordinary shares, plus an annual increase on the first day of each of our fiscal year during the term of the Post-IPO Plan commencing with the fiscal year beginning January 1, 2018, by an amount equal to the least of (i) 0.5% of the total number of Class A ordinary shares issued and outstanding on the last day of the immediately preceding fiscal year; (ii) 150,000 Class A ordinary shares or (iii) such number of Class A ordinary shares as may be determined by our board of directors. As of the date hereof, the award pool under the Post-IPO Plan is 2,841,374 Class A ordinary shares. As of March 31, 2020, 902,735 Class A ordinary shares are outstanding under our Post-IPO Plan, representing the shares underlying the unvested 902,735 restricted Class A ordinary shares units.

We account for shared-based compensation for these share incentive awards using a fair value based method and recognize expenses in our consolidated statements of comprehensive loss in accordance with U.S. GAAP. We will incur additional share based compensation expenses in the future as we continue to grant share incentives using the ordinary shares reserved for this platform. See “Item 6. Directors, Senior Management and Employees—B. Compensation of Directors and Executive Officers—Share Incentive Plans”. We believe the granting of share-based compensation is of significant importance to our ability to attract and retain key personnel and employees, and we will continue to grant share based compensation to them in the future. As a result, our expenses associated with share-based compensation may increase, which may have an adverse effect on our results of operations.

***If securities or industry analysts do not publish research or publish inaccurate or unfavorable research about our business, the market price for our ADSs and trading volume could decline.***

The trading market for our ADSs will depend in part on the research and reports that securities or industry analysts publish about us or our business. If research analysts do not establish and maintain adequate research coverage or if one or more of the analysts who cover us downgrade our ADSs or publish inaccurate or unfavorable research about our business, the market price for our ADSs would likely decline. If one or more of these analysts cease coverage of our company or fail to publish reports on us regularly, we could lose visibility in the financial markets, which, in turn, could cause the market price or trading volume for our ADSs to decline.

***The sale or availability for sale of substantial amounts of our ADSs could adversely affect their market price.***

Sales of substantial amounts of our ADSs in the public market, or the perception that these sales could occur, could adversely affect the market price of our ADSs and could materially impair our ability to raise capital through equity offerings in the future. We cannot predict what effect, if any, market sales of securities held by our significant shareholders, including potential sales of our securities upon the conversion of our convertible notes, or any other shareholder or the availability of these securities for future sale will have on the market price of our ADSs.

***Because we do not expect to pay dividends in the foreseeable future, you must rely on price appreciation of our ADSs for return on your investment.***

We currently intend to retain most, if not all, of our available funds and any future earnings to fund the development and growth of our business. As a result, we do not expect to pay any cash dividends in the foreseeable future. Therefore, you should not rely on an investment in our ADSs as a source for any future dividend income.

Our board of directors has discretion as to whether to distribute dividends, subject to certain restrictions under Cayman Islands law, namely that our company may only pay dividends out of profits or share premium, and provided always that in no circumstances may a dividend be paid if this would result in our company being unable to pay its debts as they fall due in the ordinary course of business. In addition, our shareholders may by ordinary resolution declare a dividend, but no dividend may exceed the amount recommended by our board of directors. Even if our board of directors decides to declare and pay dividends, the timing, amount and form of future dividends, if any, will depend on, among other things, our future results of operations and cash flow, our capital requirements and surplus, the amount of distributions, if any, received by us from our subsidiaries, our financial condition, contractual restrictions and other factors deemed relevant by our board of directors. Accordingly, the return on your investment in our ADSs will likely depend entirely upon any future price appreciation of our ADSs. There is no guarantee that our ADSs will appreciate in value or even maintain the price at which you purchased the ADSs. You may not realize a return on your investment in our ADSs and you may even lose your entire investment in our ADSs.

***Our memorandum and articles of association that contain anti-takeover provisions that could discourage a third party from acquiring us and adversely affect the rights of holders of our Class A ordinary shares and ADSs.***

Our memorandum and articles of association contain certain provisions that could limit the ability of others to acquire control of our company, including a dual-class share structure that gives greater voting power to the Class B ordinary shares beneficially owned by Mr. Sammy Hsieh and Mr. Jian Tang and a provision that grants authority to our board of directors to establish and issue from time to time one or more series of preferred shares without action by our shareholders and to determine, with respect to any series of preferred shares, the terms and rights of that series. These provisions could have the effect of depriving our shareholders and ADSs holders of the opportunity to sell their shares or ADSs at a premium over the prevailing market price by discouraging third parties from seeking to obtain control of our company in a tender offer or similar transactions.

***As a company incorporated in the Cayman Islands, we will adopt certain home country practices in relation to corporate governance matters that differ significantly from the NASDAQ corporate governance requirements; these practices may afford less protection to shareholders than they would enjoy if we complied fully with the NASDAQ corporate governance requirements.***

As a Cayman Islands company listed on the NASDAQ Global Market, we are subject to the NASDAQ corporate governance requirements. However, NASDAQ Global Market rules permit a foreign private issuer like us to follow the corporate governance practices of its home country. Certain corporate governance practices in the Cayman Islands, which is our home country, may differ significantly from the NASDAQ corporate governance requirements. We follow our home country practices and rely on certain exemptions provided by the Nasdaq Stock Market Rules to a foreign private issuer, including exemptions from the requirements to have:

- shareholder approval for certain events, including the establishment or amendment of certain equity based compensation plans and arrangements and certain transactions involving issuances of 20% or more interest in our company;
- majority of independent directors on our board of directors;
- only independent directors being involved in the selection of director nominees and determination of executive officer compensation; and
- regularly scheduled executive sessions of independent directors.

As a result of our reliance on the corporate governance exemptions available to foreign private issuers, you will not have the same protection afforded to shareholders of companies that are subject to all of Nasdaq's corporate governance requirements.

***You may face difficulties in protecting your interests, and your ability to protect your rights through U.S. courts may be limited, because we are incorporated under Cayman Islands law.***

We are an exempted limited liability company incorporated under the laws of the Cayman Islands. Our corporate affairs are governed by our memorandum and articles of association, the Companies Law (2020 Revision) of the Cayman Islands and the common law of the Cayman Islands. The rights of shareholders to take action against the directors, actions by minority shareholders and the fiduciary duties of our directors to us under Cayman Islands law are to a large extent governed by the common law of the Cayman Islands. The common law of the Cayman Islands is derived in part from comparatively limited judicial precedent in the Cayman Islands as well as from the common law of England, the decisions of whose courts are of persuasive authority, but are not binding, on a court in the Cayman Islands. The rights of our shareholders and the fiduciary duties of our directors under Cayman Islands law are not as clearly established as they would be under statutes or judicial precedent in some jurisdictions in the United States. In particular, the Cayman Islands has a less developed body of securities laws than the United States. Some U.S. states, such as Delaware, have more fully developed and judicially interpreted bodies of corporate law than the Cayman Islands. In addition, Cayman Islands companies may not have standing to initiate a shareholder derivative action in a federal court of the United States.

Shareholders of Cayman Islands exempted companies like us have no general rights under Cayman Islands law to inspect corporate records or to obtain copies of lists of shareholders of these companies. Our directors will have discretion under our current memorandum and articles of association, to determine whether or not, and under what conditions, our corporate records may be inspected by our shareholders, but are not obliged to make them available to our shareholders. This may make it more difficult for you to obtain the information needed to establish any facts necessary for a shareholder resolution or to solicit proxies from other shareholders in connection with a proxy contest.

As a result of all of the above, our public shareholders may have more difficulty in protecting their interests in the face of actions taken by management, members of the board of directors or controlling shareholders than they would as public shareholders of a company incorporated in the United States.

***You may experience difficulties in effecting service of legal process and enforcing judgments obtained against us, our directors or our officers, and the ability of U.S. authorities to bring actions against us, our directors or our officers in China may also be limited.***

We are an exempted limited liability company incorporated under the laws of the Cayman Islands. We conduct substantially all of our operations in China and substantially all of our assets are located in China. In addition, a majority of our directors and executive officers reside within China, and most of the assets of these persons are located within China. As a result, it may be difficult or impossible for you to effect service of process within the United States upon these individuals, or to bring an action against us or against these individuals in the United States in the event that you believe your rights have been infringed under the U.S. federal securities laws or otherwise. Even if you are successful in bringing an action of this kind, the laws of the Cayman Islands and of the PRC may render you unable to enforce a judgment against our assets or the assets of our directors and officers. In addition, due to jurisdictional limitations, matters of comity and various other factors, the SEC, Department of Justice (“DOJ”) and other U.S. authorities may be limited in their ability to take enforcement actions, including in instances of fraud, against us or our directors and officers in China. In addition, shareholder claims that are common in the United States, including class action securities law and fraud claims, generally uncommon in China.

***The voting rights of holders of ADSs are limited by the terms of the deposit agreement, and you may not be able to exercise your right to vote your Class A ordinary shares.***

As a holder of our ADSs, you will only be able to exercise the voting rights with respect to the underlying Class A ordinary shares in accordance with the provisions of the deposit agreement. Under the deposit agreement, you must vote by giving voting instructions to the depositary. If we ask for your instructions, then upon receipt of your voting instructions, the depositary will try to vote the underlying Class A ordinary shares in accordance with these instructions. If we do not instruct the depositary to ask for your instructions, the depositary may still vote in accordance with instructions you give, but it is not required to do so. You will not be able to directly exercise your right to vote with respect to the underlying shares unless you withdraw the shares. When a general meeting is convened, you may not receive sufficient advance notice to withdraw the shares underlying your ADSs to allow you to vote with respect to any specific matter. If we ask for your instructions, the depositary will notify you of the upcoming vote and will arrange to deliver our voting materials to you. We have agreed to give the depositary at least 30 days’ prior notice of shareholder meetings.

Nevertheless, we cannot assure you that you will receive the voting materials in time to ensure that you can instruct the depositary to vote your shares. In addition, the depositary and its agents are not responsible for failing to carry out voting instructions or for their manner of carrying out your voting instructions. This means that you may not be able to exercise your right to vote and you may have no legal remedy if the shares underlying your ADSs are not voted as you requested.

***Except in limited circumstances, the depositary for our ADSs will give us a discretionary proxy to vote our Class A ordinary shares underlying your ADSs if you do not vote at shareholders' meetings, which could adversely affect your interests.***

Under the deposit agreement for our ADSs, to the extent we have provided the depositary with at least 40 days' notice of a proposed meeting, if voting instructions are not timely received by the depositary from you, you shall be deemed to have instructed the depositary to give a discretionary proxy to a person designated by us to vote the shares represented by you ADSs as desired.

However, no such instruction shall be deemed given and no discretionary proxy shall be given (a) if we inform the depositary in writing that (i) we do not wish such proxy to be given, (ii) substantial opposition exists with respect to any agenda item for which the proxy would be given or (iii) the agenda item in question, if approved, would materially or adversely affect the rights of holders of shares and (b) unless we have provided the depositary with an opinion of our counsel to the effect that (a) the granting of such discretionary proxy does not subject the depositary to any reporting obligations in the Cayman Islands, (b) the granting of such proxy will not result in a violation of any applicable law, public rule or regulation in force in the Cayman Islands and (c) the courts of the Cayman Islands will give effect to the voting arrangement and deemed instruction as contemplated in the proxy under Cayman Islands law.

The effect of this discretionary proxy is that, if you fail to give voting instructions to the depositary as to how to vote the Class A ordinary shares underlying your ADSs at any particular shareholders' meeting, you cannot prevent our Class A ordinary shares underlying your ADSs from being voted at that meeting, absent the situations described above, and it may make it more difficult for shareholders to influence our management. Holders of our Class A ordinary shares are not subject to this discretionary proxy.

***Your rights to pursue claims against the depositary as a holder of ADSs are limited by the terms of the deposit agreement and the deposit agreement may be amended or terminated without your consent.***

Under the deposit agreement, any action or proceeding against or involving the depositary, arising out of or based upon the deposit agreement or the transactions contemplated thereby or by virtue of owning the ADSs may only be instituted in a state or federal court in New York, New York, and you, as a holder of our ADSs, will have irrevocably waived any objection which you may have to the laying of venue of any such proceeding, and irrevocably submitted to the exclusive jurisdiction of such courts in any such action or proceeding. However, the depositary may, in its sole discretion, require that any dispute or difference arising from the relationship created by the deposit agreement be referred to and finally settled by an arbitration conducted under the terms described in the deposit agreement. Also, we may amend or terminate the deposit agreement without your consent. If you continue to hold your ADSs after an amendment to the deposit agreement, you agree to be bound by the deposit agreement as amended.

***Your right to participate in any future rights offerings may be limited, which may cause dilution to your holdings.***

We may from time to time distribute rights to our shareholders, including rights to acquire our securities. However, we cannot make such rights available to you in the United States unless we register both the rights and the securities to which the rights relate under the Securities Act or an exemption from the registration requirements is available. Under the deposit agreement, the depositary will not make rights available to you unless both the rights and the underlying securities to be distributed to ADS holders are either registered under the Securities Act or exempt from registration under the Securities Act. We are under no obligation to file a registration statement with respect to any such rights or securities or to endeavor to cause such a registration statement to be declared effective and we may not be able to establish a necessary exemption from registration under the Securities Act. Accordingly, you may be unable to participate in our rights offerings in the future and may experience dilution in your holdings.

***You may not receive dividends or other distributions on our Class A ordinary shares and you may not receive any value for them, if it is illegal or impractical to make them available to you.***

The depositary of our ADSs has agreed to pay to you the cash dividends or other distributions it or the custodian receives on Class A ordinary shares or other deposited securities underlying our ADSs, after deducting its fees and expenses. You will receive these distributions in proportion to the number of Class A ordinary shares your ADSs represent. However, the depositary is not responsible if it decides that it is unlawful or impractical to make a distribution available to any holders of ADSs. For example, it would be unlawful to make a distribution to a holder of ADSs if it consists of securities that require registration under the Securities Act but that are not properly registered or distributed under an applicable exemption from registration. The depositary may also determine that it is not feasible to distribute certain property through the mail. Additionally, the value of certain distributions may be less than the cost of mailing them. In these cases, the depositary may determine not to distribute such property. We have no obligation to register under U.S. securities laws any ADSs, Class A ordinary shares, rights or other securities received through such distributions. We also have no obligation to take any other action to permit the distribution of ADSs, Class A ordinary shares, rights or anything else to holders of ADSs. This means that you may not receive distributions we make on our Class A ordinary shares or any value for them if it is illegal or impractical for us to make them available to you. These restrictions may cause a material decline in the value of our ADSs.

***You may be subject to limitations on transfer of your ADSs.***

Your ADSs are transferable on the books of the depository. However, the depository may close its transfer books at any time or from time to time when it deems expedient in connection with the performance of its duties. In addition, the depository may refuse to deliver, transfer or register transfers of ADSs generally when our books or the books of the depository are closed, or at any time if we or the depository deems it advisable to do so because of any requirement of law or of any government or governmental body, or under any provision of the deposit agreement, or for any other reason.

***We are a foreign private issuer within the meaning of the rules under the Exchange Act, and as such we are exempt from certain provisions applicable to U.S. domestic public companies.***

Because we qualify as a foreign private issuer under the Exchange Act, we are exempt from certain provisions of the securities rules and regulations in the United States that are applicable to U.S. domestic issuers, including:

- the rules under the Exchange Act requiring the filing with the SEC of quarterly reports on Form 10-Q or current reports on Form 8-K;
- the sections of the Exchange Act regulating the solicitation of proxies, consents, or authorizations in respect of a security registered under the Exchange Act;
- the sections of the Exchange Act requiring insiders to file public reports of their stock ownership and trading activities and liability for insiders who profit from trades made in a short period of time; and
- the selective disclosure rules by issuers of material nonpublic information under Regulation FD.

We are required to file an annual report on Form 20-F within four months of the end of each fiscal year. In addition, we intend to publish our results on a quarterly basis as press releases, distributed pursuant to the rules and regulations of the NASDAQ Global Market. Press releases relating to financial results and material events will also be furnished to the SEC on Form 6-K. However, the information we are required to file with or furnish to the SEC will be less extensive and less timely compared to that required to be filed with the SEC by U.S. domestic issuers. As a result, you may not be afforded the same protections or information that would be made available to you were you investing in a U.S. domestic issuer.

***We are an emerging growth company within the meaning of the Securities Act and may take advantage of certain reduced reporting requirements. However, such reduced reporting requirements may make our ADSs less attractive to investors.***

We are an emerging growth company, as defined in the JOBS Act, and we may take advantage of certain exemptions from requirements applicable to other public companies that are not emerging growth companies including, most significantly, not being required to comply with the auditor attestation requirements of Section 404 for so long as we are an emerging growth company. We cannot predict if investors will find our ADSs less attractive because we may rely on these exemptions. If some investors find our ADSs less attractive as a result, there may be a less active trading market for our ADSs and our stock price may be more volatile.

***We may lose our foreign private issuer status in the future, which could result in significant additional cost and expense.***

The determination of our status as a foreign private issuer is made annually on the last business day of our most recently completed second fiscal quarter. If we were to lose our foreign private issuer status, the regulatory and compliance costs to us under U.S. securities laws as a U.S. domestic issuer may be significantly higher. We may also be required to modify certain of our policies to comply with corporate governance practices associated with U.S. domestic issuers, which would involve additional costs.

***We have incurred increased costs as a result of being a public company, and our compliance costs may continue to increase in the future, particularly after we cease to qualify as an emerging growth company.***

We have incurred additional legal, accounting and other expenses as a public reporting company. In addition, we will incur additional costs when we cease to qualify as an emerging growth company, which occurs on the earliest of (a) the last day of the fiscal year during which we have total annual gross revenues of at least US\$1.07 billion; (b) December 31, 2022; (c) the date on which we have, during the preceding three-year period, issued more than US\$1.0 billion in non-convertible debt; or (d) the date on which we are deemed to be a “large accelerated filer” under the Exchange Act, which would occur if the market value of our ADSs that are held by non-affiliates exceeds US\$700 million as of the last business day of our most recently completed second fiscal quarter. For example, we will be required to comply with additional requirements of the rules and regulations of the SEC and requirements of the NASDAQ Global Market, including applicable corporate governance practices. In addition, after we cease to qualify as an emerging growth company, we will be required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002. We expect that compliance with these requirements will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. We also expect that our management and other personnel will need to divert attention from operational and other business matters to devote substantial time to these public company requirements. We cannot predict or estimate the amount of additional costs we may incur as a result of becoming a public company or the timing of such costs.

In addition, changing laws, regulations and standards relating to corporate governance and public disclosure are creating uncertainty for public companies, increasing legal and financial compliance costs and making some activities more time-consuming. These laws, regulations and standards are subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We intend to invest resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of management's time and attention from revenue-generating activities to compliance activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to their application and practice, regulatory authorities may also initiate legal proceedings against us and our business may be adversely affected.

***There can be no assurance that we will not be a passive foreign investment company, or PFIC, for United States federal income tax purposes for any taxable year, which could subject United States investors in our ADSs or ordinary shares to significant adverse United States income tax consequences.***

A non-U.S. corporation will be a "passive foreign investment company," or "PFIC," if, in any particular taxable year, either (a) 75% or more of its gross income for such year consists of certain types of "passive" income or (b) 50% or more of the average quarterly value of its assets (as determined on the basis of fair market value) during such year produce or are held for the production of passive income (the "asset test"). We expect to derive sufficient active revenues and to have sufficient active assets, so that we will not be classified as a PFIC for the current taxable year or in the foreseeable future. However, because the PFIC tests must be applied each year, and the composition of our income and assets and value of our assets (which may be determined by reference to the market value of our ADSs) may change, and because the treatment of our VIE for U.S. federal income tax purposes is not entirely clear, it is possible that we may become a PFIC in the current or a future year.

In particular, because the value of our assets for purposes of the asset test may be determined by reference to the market price of our ADSs, fluctuations in the market price of our ADSs may cause us to become a PFIC for the current or subsequent taxable years. The determination of whether we are a PFIC also depends, in part, on the composition of our income and assets, which may be affected by how, and how quickly, we use our liquid assets. If we do not deploy significant amounts of cash for active purposes, our risk of being a PFIC may substantially increase.

If we are a PFIC in any taxable year, a U.S. Holder (as defined in "Item 10. Additional Information—E. Taxation—United States Federal Income Tax Considerations") may incur significantly increased United States income tax on gain recognized on the sale or other disposition of the ADSs or ordinary shares and on the receipt of distributions on the ADSs or ordinary shares to the extent such gain or distribution is treated as an "excess distribution" under the United States federal income tax rules, and such holder may be subject to burdensome reporting requirements. Further, if we are a PFIC for any year during which a U.S. Holder holds our ADSs or ordinary shares, such U.S. Holder generally will be required to continue to treat us as a PFIC for all succeeding years during which such U.S. Holder holds our ADSs or ordinary shares. For more information, see "Item 10. Additional Information—E. Taxation—United States Federal Income Tax Considerations—Passive Foreign Investment Company Rules."

#### **ITEM 4. INFORMATION ON THE COMPANY**

##### **A. History and Development of the Company**

We commenced our online marketing business in 2009. Two of our subsidiaries, Digital Marketing Group Limited and Tetris Media Limited, existed without significant operational activities prior to 2009. In February 2010, we restructured our holding structuring by incorporating Optimix Media Asia Limited in the Cayman Islands as the holding company of Optimix HK to facilitate financing and offshore listing. In March 2017, we changed our name from Optimix Media Asia Limited to iClick Interactive Asia Group Limited.

In September 2010, we set up Diablo Holdings Corporation, a company incorporated in the British Virgin Islands, which focuses on search engine marketing and operates in China through Search Asia Technology (Shenzhen) Co., Ltd., its wholly-owned subsidiary.

In January 2011, we set up our Singapore subsidiary, iClick Interactive (Singapore) Pte. Ltd., to provide localized services to clients in Southeast Asia.

In January 2013, we incorporated Performance Media Group Limited in Hong Kong to further expand our online marketing business.

In July 2013, we set up Tetris Media (Shanghai) Co., Ltd., as our wholly-owned PRC subsidiary.

In November 2014, we enhanced our data analytics capabilities by acquiring Buzzinate Company Limited, or Buzzinate, a company incorporated in Hong Kong. Buzzinate is an online marketing platform with strong data analytics capabilities and deep understanding of behavior of internet users in China. Buzzinate operated in China from November 2014 to March 2018 through Buzzinate (Shanghai) Information Technology Co., Ltd., its wholly-owned subsidiary. In March 2018, Buzzinate (Shanghai) Information Technology Co., Ltd. ceased its operations. In March 2019, Buzzinate Company Limited ceased its operations.

In July 2015, we acquired all shares in OptAim Ltd., or OptAim, and substantially expanded our online marketing business into mobile channels to identify, engage and convert mobile marketing. Under the terms of the share purchase agreement, we acquired all equity interests in OptAim Ltd., including those of OptAim Ltd.'s VIE entity, OptAim Network, from its existing shareholders Igomax Inc. (an entity controlled by Mr. Jian Tang), Zaffre Investments Inc., Sohu.com Limited, and BAI GmbH, for a total consideration of RMB10 million and US\$14,365,345 in cash and 2,535,091 of our ordinary shares. As part of the agreement, Mr. Jian Tang and Ms. Jie Jiao became the nominee shareholders of OptAim Network. Mr. Jian Tang is our co-founder, director and chief executive officer. Ms. Jie Jiao is our then chief financial officer. As of the date of this annual report, Mr. Jian Tang and Ms. Jie Jiao are the nominee shareholders of OptAim Network, and we are arranging the transfer of Ms. Jie Jiao's equity interest in OptAim Network to an affiliate of our company. In addition, Optimix Media Asia Limited made two loans in the aggregate amount of US\$5.0 million to OptAim, Ltd. to pay a special dividend to Igomax Inc. Igomax Inc., Sohu.com Limited and Mr. Jian Tang each agreed to a non-compete and non-solicitation undertaking with respect to OptAim Ltd. and its consolidated subsidiaries for a period of three years. OptAim operates in China through OptAim Beijing, its wholly-owned subsidiary. OptAim Beijing has entered into a set of contractual arrangements with OptAim Network, a company incorporated in China, OptAim Network's nominee shareholders, and Zhiyunzhong, the wholly-owned Chinese subsidiary of OptAim Network.

As a result of these contractual arrangements, we have effective control over, and are the primary beneficiary of, OptAim Network and therefore treat OptAim Network and its subsidiaries as our consolidated affiliated entities under U.S. GAAP and have consolidated their financial results in our consolidated financial statements in accordance with U.S. GAAP.

On December 21, 2017, our ADSs commenced trading on Nasdaq Global Market under the symbol "ICLK." We raised from our initial public offering approximately \$23,325,000 in net proceeds after deducting underwriting commissions and the offering expenses payable by us.

In May 2018, we launched a strategic growth initiative beyond our core online marketing operation to provide SaaS-based enterprise solutions. Our enterprise solutions help enterprise optimize their capabilities to leverage various types of data, and help them reduce costs and allow for easy integration with other platforms and applications. Our enterprise solutions help us foster closer relationship with our clients beyond digital marketing. Enterprises can make better and more informed choices during their decision-making process through our enterprise solutions.

On June 27, 2018, we announced a strategic partnership with, MezzoMedia, a leading digital marketing solution company in Korea. This new collaboration is a continuation of our strategy to expand our international footprint and provide effective targeted access to digital marketers around world.

On September 12, 2018, we issued US\$30 million in aggregate principal amount of mandatory convertible notes due September 12, 2023, or the 2018 Notes, to a fund managed by LIM Advisors Limited, a non-U.S. person, in an offshore transaction exempt from registration with the SEC under Regulation S of the Securities Act, or Regulation S. CLSA acted as our exclusive financial advisor for the placement. On October 1, 2019, we entered into a purchase agreement (as amended on November 14, 2019) to buy back US\$20 million in aggregate principal amount of the 2018 Notes, and this buy-back had been completed by March 31, 2020. In January and February 2020, we entered into two convertible note purchase agreements with Cheer Lead Global Limited, or Cheer Lead, and New Business Holdings Limited, or New Business, respectively, under which we agreed to sell and transfer to Cheer Lead and New Business portions of the 2018 Notes we bought back in the aggregate principal amounts of US\$3.45 million and US\$13.1 million, respectively.

In November 2018, we made a controlling investment in Myhayo, a content distribution channel and a mobile content aggregator of articles and short videos in the PRC, which presents customized feeds to users via its mobile application. The acquisition may further increase our market shares in the PRC online marketing segment, particularly in relation to mobile platform.

In January 2019, we made a controlling investment in Changyi, a leading independent software vendor based in Shanghai. Changyi provides intelligent retail and CRM solutions to clients, allowing them to consolidate consumer's online and offline information to provide connection within the organization and stakeholders. The acquisition further enhances of our enterprise solutions.

In May 2019, we entered into a strategic partnership agreement with BTG WELINK, the online retail services arm of Beijing Tourism Group, or BTG, one of the top ten tourism service groups in China, and Tencent. As part of this partnership, we will leverage Tencent's big data advertising platform to apply our marketing solutions and enterprise solutions to help BTG build a private demand side platform. This includes developing precision marketing campaigns, and equipping BTG's frontline staff with mobile apps that support smart shopping, marketing and member retention.

In May 2019, we formed a joint venture with VGI Global Media Plc, or VGI, in Thailand to expand the geographic reach of our marketing solutions. Through VGI, we offer a suite of mobile and new media solutions to help Southeast Asian consumer brands understand the purchasing behaviors of and penetrate Chinese consumers traveling in Thailand.

On November 11, 2019, we issued a three-year convertible note due November 11, 2022 in aggregate principal amount of US\$20 million to Marine Central Limited, or Marine Central, a non-U.S. person, in an offshore transaction exempt from registration with the SEC under Regulation S. On December 16, 2019, we issued a three-year convertible note due December 16, 2022 in aggregate principal amount of US\$10 million to Tech Famous Limited, or Tech Famous, a non-U.S. person, in an offshore transaction exempt from registration with the SEC under Regulation S. We intend to use the net proceeds of these convertible notes primarily for continued investment in our enterprise solutions and other new businesses. On February 18, 2020, Marine Central and Tech Famous elected to early convert the entire principal amounts of these convertible notes into our Class A ordinary shares, instead of ADSs, at a price of US\$7.8 per share. In connection with the issuance of these convertible notes, we issued warrants to purchase up to 4,651,162 ADSs to Eaglestride Limited, the financial adviser in these transactions, as compensation for its services, at an exercise price of US\$4.30 per ADS, subject to adjustments to be specified in the warrants, in an offshore transaction exempt from registration with the SEC in reliance on Regulation S. The warrants are exercisable on or after December 16, 2020, and will expire on December 16, 2022.

Our principal executive offices are located at 15/F, Prosperity Millennia Plaza, 663 King's Road, Quarry Bay, Hong Kong S.A.R. Our telephone number at this address is (852) 3700 9000. Our registered office in the Cayman Islands is located at Maples Corporate Services Limited at PO Box 309, Uglund House, Grand Cayman, KY1-1104, Cayman Islands. Our internet address is [www.i-click.com](http://www.i-click.com). The SEC also maintains an internet site at [www.sec.gov](http://www.sec.gov) that contains reports, proxy and information statements, and other information regarding registrants that make electronic filings with the SEC.

## B. Business Overview

We are a leading independent online marketing and enterprise data solutions provider in China. We serve as an integrated cross-channel gateway that provides marketers with innovative and cost-effective ways to optimize their online marketing efforts throughout their marketing cycle and achieve their branding and performance-based marketing goals. Our integrated data-driven solutions help marketers identify, engage and activate potential customers, monitor and measure the results of marketing campaigns, and create content catering to potential customers across different content distribution channels through both PC and mobile devices.

Our online marketing solutions are enabled and supported by our extensive data set, sophisticated data analytics capabilities and cutting-edge technologies. We collect data from a wide variety of channels, including through our proprietary tracking tools, from our marketers, publishers and ad exchanges when managing marketing campaigns, and to a lesser extent, from third-party strategic partners. From our large volume of unstructured data, we construct context-rich user profiles, utilizing our proprietary audience profiling and segmentation technologies. These user profiles, which are updated and refined on a continuous basis, typically include information on a user's attributes, such as his or her demographics, geographic location, device preference, spending history, personal interest and other online or offline behavioral pattern. In the 30 days leading up to March 31, 2020, we analyzed approximately 930.8 million active profiled users with 22 attributes on average for each such profile. Leveraging our sophisticated automation and deep learning technologies, we continually refine our big data analytics and update our user profiles to address the evolving needs of our clients, optimize the effectiveness of our solutions, and increase our operational efficiency while ensuring the stability of our data and platform as we scale up operations.

Our platform appeals to marketers by offering omni-channel reach to the Chinese audience. We provide our clients with onestop access to a wide variety of cross-channel content distribution opportunities, including those from leading online publishers in China. In the 30 days leading up to March 31, 2020, we covered approximately 125,000 mobile apps and 2.3 million websites. We work closely with our content distribution partners to facilitate innovative and effective audience engagement. In 2018 and 2019, our gross billing from marketing solutions amounted to US\$399.7 million and US\$640.8 million, respectively.

Leveraging our data analytics and experience and expertise in online marketing, in May 2018, we launched a strategic growth initiative beyond our core online marketing operation to provide SaaS-based enterprise solutions. Our data-driven enterprise solutions, which are built on Tencent cloud and leverage Tencent's proprietary API connection and mini programs in Tencent's Wechat ecosystem, help enterprises maximize the value of their data to gain actionable insights to improve CRM, decision-making and establishment of data-management platforms. Through the enterprise solutions, we are able to foster deeper relationship with clients beyond online marketing. In addition, as our clients increasingly adopt our enterprise solutions, we are able to continue to enhance the quantity, quality, and diversity of our data assets and refine our data analytics.

We take a flexible approach to deliver our solutions in order to cater to the preferences and levels of internal resources and expertise of our clients. Our clients may choose to access our solutions through (i) self-service, when which they have the flexibility to utilize our solutions “a la carte” to complement their existing marketing resources, or through (ii) managed service, when our account management team provides in-depth services that suit the clients’ specified marketing objectives and budgets utilizing our solutions.

The success of our solutions is evidenced by our strong, diverse and loyal client base from a broad range of industry verticals, including entertainment and media, E-commerce, travel and hospitality, automobile and petroleum, and banking and finance. Our clients include direct marketers and marketing agencies, and feature companies of different sizes, including more than 270 multinationals companies in 2019, as well as small and medium-sized enterprises, and from different geographic regions in and outside China.

For our online marketing solutions, we generate revenue primarily from clients’ marketing spend through our platform as they utilize our solutions in cost-plus and specified action marketing campaigns, and to a less extent from incentives granted by the publisher under our sales agency arrangement. For our enterprise solutions, we generate revenue primarily from the upfront and on- going subscription fees clients pay.

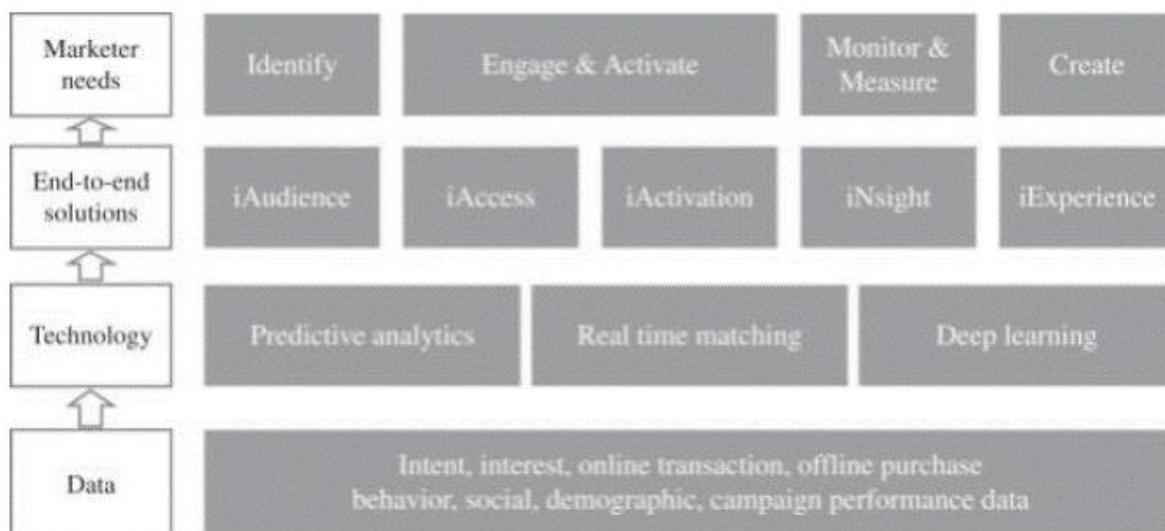
**Our Online Marketing Solutions**

Through our suite of end-to-end solutions, enabled and supported by our extensive data set, sophisticated data analytics capabilities and cutting-edge technologies, we deliver highly integrated customer experience and address marketers’ needs throughout their marketing cycle and across different online channels to:

- identify their potential customers;
- engage and activate potential customers;
- monitor and measure the results of online marketing campaigns; and
- create content catering to their potential customers.

All our online marketing solutions, including the solutions from OptAim are integrated in a single user-friendly platform, accessible through both PC and mobile devices.

The following diagram illustrates the architecture of our online marketing platform:



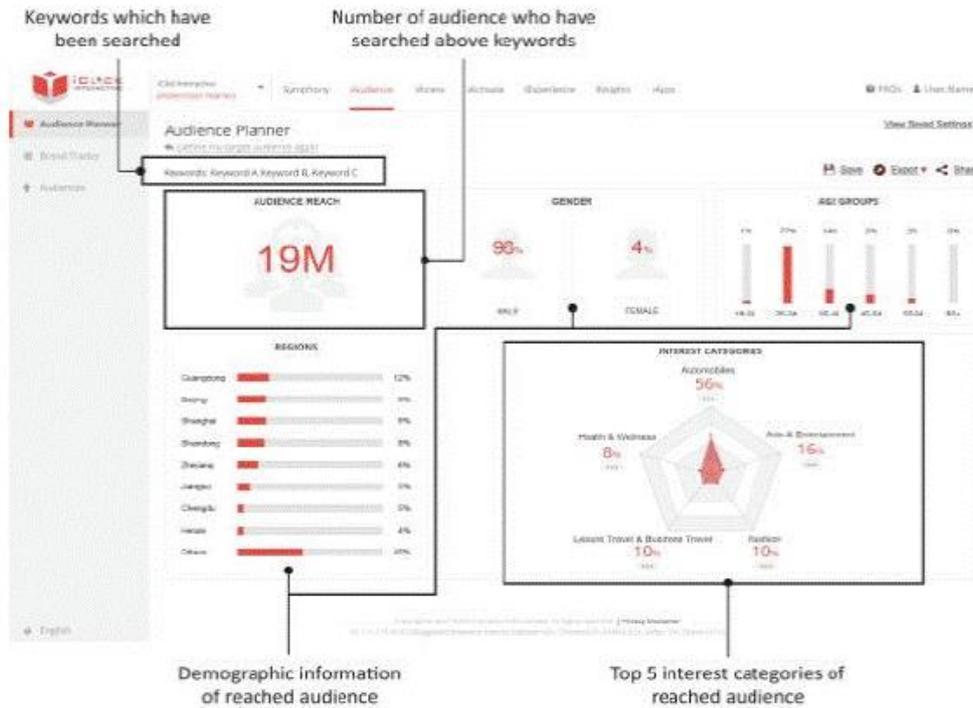
Our Suite of Online Marketing Solutions

*Audience Identification Solution: iAudience*

iAudience is our audience identification solution that allows marketers to search, identify and customize their targeted audience to generate or boost brand awareness. Marketers can simply type in a list of keywords, such as brand names or products of interest, and iAudience will automatically suggest other keywords usually associated with, or used in, the relevant contexts, and then search our database of user profiles to identify the most relevant user profiles to target. Marketers have the flexibility to refine these audience search results, for example, by user attribute, for more focused targeting. In addition, we have built “pre-packaged” audience groups for a wide variety of industries, including travel, education, finance, automobile and real estate to streamline the audience identification process for marketers in these industries, who can identify their desired user profiles in just one click.

iAudience also helps marketers map out the competitive landscape by showing the overlaps of their consumers and their competitors. This enables marketers to filter out brand loyalists from brand switchers for more effective, bespoke communications.

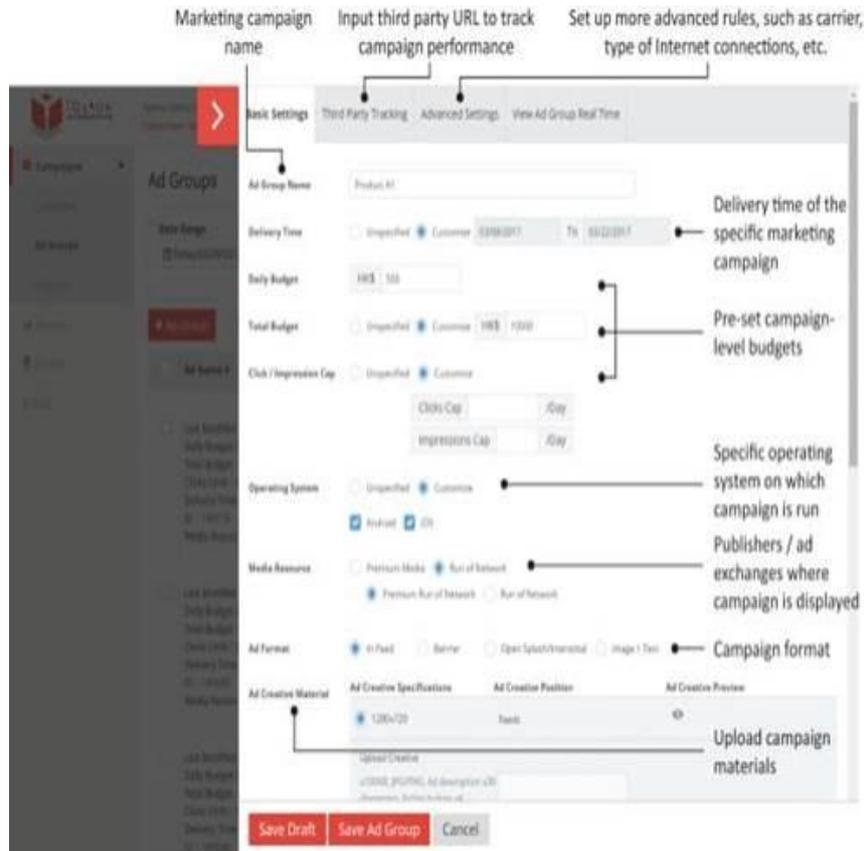
Below is a sample interface for our iAudience solution.



*Audience Engagement and Activation Solutions: iAccess and iActivation*

iAccess and iActivation are our cross-channel audience engagement and activation solutions, respectively tailored for brand awareness-driven campaigns and performance-driven campaigns. iAccess and iActivation provide marketers with a comprehensive suite of targeting or re-targeting options to reach out to, or re-connect with, potential audience identified by iAudience. Marketers can choose to target these audience based on their gender, age, income levels, geographic locations, interest, device, and device operating system. Marketers are also afforded the flexibility to select their preferred content format, budgeting requirement, display frequency and time to reach these audience.

Below is a sample interface for our iAccess solution.



#### Audience Engagement Solution Designed for Small and Medium-Sized Enterprises—iExpress

iExpress is the “lite” version of our iAccess solution. While iAccess is designed for and primarily used by multinational clients, iExpress is designed for small and medium-sized enterprises in China, who value simplicity and flexibility in their marketing activities. iExpress contains the basic functions of iAccess with a more simplified and intuitive user interface.

#### Campaign Results Monitoring and Measurement Solution: iNsights

iNsights is our online campaign results monitoring and measurement solution. It helps marketers analyze their campaign performance to refine campaign strategies and guide future campaign planning. Through a user-friendly interface, marketers can view their campaign performance information, including marketing costs incurred, number of clicks, click-through rates, number of conversions and other useful information for each online channel individually and for different online channels in the aggregate. In addition to basic campaign performance information, iNsights provides marketers with in-depth analyses, including:

- *Conversion path analyses*—Holistic analyses of when, where and how a user interacts with various devices by the multiple touch points he or she has come in contact with, including the “last mile” through which the user is converted, i.e., making a purchase or otherwise taking an action that the marketer desires; and
- *Cross-channel effectiveness analyses*—Analyses of the effectiveness of the various marketing channels in achieving different marketing objectives and their respective cost effectiveness. Combining these with conversion path analyses, marketers can identify the portfolio of channels that work in tandem with each other to generate the greatest marketing impact and effectiveness.

## *Content Creation Solution: iExperience*

We launched iExperience, our content creation solution that helps marketers syndicate and manage all their marketing content and assets in 2018. iExperience enables marketers to syndicate their marketing messages across all their marketing channels, and provides them with the option to dynamically create and tailor marketing messages to specific audience interest by modifying their content and presentation (including, for example, style of the marketing message, colors displayed, text used and formatting) as well as by selecting specific products and services to include in the marketing messages. iExperience also assists marketers to optimize their websites to convert more visitors into consumers. Our solutions support other technical layers that provide marketers with value-adding features. For example, we screen websites to ensure that a marketing message will not be displayed in adult, political, criminal or other illegal or inappropriate contexts. In addition, we identify and sift out fraudulent clicks that lead to inflated traffic flow, which distorts campaign performance or leads to inflated media acquisition costs. We also support third-party tracking of audience engagement or other campaign performance data where a marketer requests.

We also leverage on our solutions such as iAudience, iAccess, and iActivation to design tailored solutions catering to clients' specific marketing needs. For example, we have launched a number of mobile marketing solutions, such as MoTV, our native in-app mobile video ad solution, MoSocial, our premium mobile social ad solution and MoFeeds, our native mobile in-feed ad solution.

### ***Our Solution Delivery Model of Online Marketing Solutions***

We offer both mobile marketing solutions and other marketing solutions based on channels desired by our clients. Our mobile marketing solutions are non-search engine marketing solutions designed to identify, engage and activate audience exclusively on mobile apps, and monitor and measure the results of online marketing activities on such channels. Our other marketing solutions are primarily focused on identifying, engaging and activating audience on non-mobile app content distribution channels, such as PC banner display, PC video advertisements and search engine marketing.

We take a flexible approach to delivering our solutions. Depending on the preferences and levels of internal resources and sophistication of clients, our solutions are delivered through:

- self-service, when clients have the flexibility to run their marketing campaigns on an “a la carte,” cost-effective basis; and
- managed service, when our account management team manages marketing campaigns for our clients, including deciding on cross-channel marketing budget allocation and the timing, frequency, number and format of audience engagement based on their specified marketing objectives and budgets.

We generate revenues primarily from clients' marketing spend through our platform as they utilize our solutions in cost-plus and specified action marketing campaigns, and depending on our revenue recognition model, either including or excluding media cost. To a lesser extent, we generate revenues from incentives granted by the publisher under our sales agency arrangement.

### ***Our Enterprise Solutions***

Leveraging our data analytics expertise and experience in online marketing, in May 2018, we launched a strategic growth initiative to provide SaaS-based enterprise solutions to help businesses improve operational and marketing efficiencies. Since then, we have extended enterprise solutions to existing and new clients in new retail, online education, real estate and other sectors. Our enterprise solutions help clients collate information from different consumer touchpoints both offline and online, and integrate them into a single data management platform to drive sales and marketing decisions. Our enterprise solutions are currently primarily established on WeChat, a widely used social platform in China that is owned and operated by Tencent Holdings Limited.

Our enterprise solutions have the following key features:

- **Integration of online and offline data:** Data from both online and offline sources are integrated into our cloud-based enterprise solution platform, to allow seamless omni-channel customer management. This includes, amongst others, our clients' proprietary data collected from their CRM systems, WeChat mini programs, WeChat public accounts, or other mobile applications and enterprise systems. The extensive integration of data allows a more in-depth understanding and segmentation of customers from a 360-degree user profile.
- **Establishing a data-management platform (DMP):** Putting in place a DMP for our clients, currently built primarily on Tencent Cloud and Enterprise WeChat platforms, which provides high-data exchangeability and compatibility with our enterprise solutions. It resolves some legacy data silo issues our clients face in China. Our enterprise solutions deliver a seamless omni-channel and personalized shopping experience covering both online and offline data to meet the trends of intelligent retail.

- **Offering integrated marketing solutions:** Our enterprise solutions, together with our online marketing solutions, help our clients manage their customer dataset and marketing plans in an integrated manner. We help our clients acquire, define and reach the target audience through our enterprise solutions. By cooperating with premium media suppliers in China, we help our clients enhance the effectiveness and efficiency of their subsequent customer acquisition and increase the stickiness of our solutions.
- **Driving retail and sales decisions:** The data analysis provided by our enterprise solutions drives precise and real-time business decisions such as store expansions, product selection and offerings to targeted customer segments, as well as personalized customer services. For example, our enterprise solutions provide location-based services to target potential customers within 5km of a client's physical store, attracting more traffic and enabling other marketing triggers.

## Our Data and Data Analytics Capabilities and Technologies

### Our Data Assets

Our data assets are the backbone of our solutions and data analytics capabilities. From approximately 125,000 mobile apps and 2.3 million websites that we covered, we analyzed approximately 930.8 million active profiled users in China in the 30 days leading up to March 31, 2020. According to the China Internet Network Information Center, or CNNIC, there were 854 million internet users and 847 million mobile internet users in China as of June 30, 2019. The average daily volume of the data we collected reached 0.9 terabytes in the 30 days leading up to March 31, 2020.

We collect data from a variety of channels, including through our proprietary tracking tools, from our marketers, publishers and ad exchanges when managing marketing campaigns, and to a lesser extent, from third-party strategic partners. We track data with our proprietary toolbars and software development kits installed on apps and websites. The data that we have tracked are complemented by, and blended with, marketing campaign performance data from marketers, publishers and ad exchanges. To a lesser extent, we collect data from selected third-party data partners, including major internet companies in China and financial institutions, through our data collaboration arrangement with them. Our data assets primarily include users' intent, interest, online transactional, offline purchase behavioral data, social data and demographic data, as well as campaign performance data.

- *Intent data* — Intent data refers to data that indicates the various intent of a user. Intent data directly identifies the interests and immediate needs of a specific user. An example of intent data would be search terms entered into search engines by a particular user looking for business class air tickets from Hong Kong to Shanghai. We obtain intent data primarily from the websites and apps on which we have installed our proprietary sharing toolbars and software development kits as well as through API connection with major search engines where marketers' search marketing is executed.
- *Interest data* — Interest data refers to the category and semantic meaning of the content of websites and apps that a user visits, including visit frequency and sequence, from which we are able to infer the various interests of a user. Interest data shows the awareness of the relevant information by a specific user. An example of interest data would be data concerning how frequently a particular user interested in fine dining browses webpages of luxury Japanese cuisine restaurants. We collect interest data from websites and apps on which we have installed our proprietary sharing toolbars and software development kits as well as through API connection with certain ad exchanges.
- *Online transactional data* — Online transactional data refers to a user's behavior on online commerce platforms, including the items he or she is browsing or has added to his or her shopping cart. Online transactional data directly identifies the purchasing intent and immediate needs of a specific user. An example of online transactional data would be a particular user browsing for high-end skin care products and adding a specific brand of eye serum into the shopping cart in preparation of a purchase. We obtain online transactional data from partnerships with branded E-commerce platforms and the re-marketing campaigns for our E-commerce clients.
- *Offline purchase behavioral data* — Offline purchase behavioral data refers to a user's behavior in non-digitally connected environments, such as offline purchase behavior when the user buys an item physically from an offline retailer by swiping his or her credit card. Offline purchase behavioral data directly identifies the purchasing behavior and immediate needs of a specific user outside of the realms of traditional digital user tracking. An example of offline purchase behavioral data would be a particular user buying a luxury handbag in a specific luxury retailer with his or her credit card. We obtain offline purchase behavioral data from partnerships with financial institutions and credit card issuers. Our offline purchase behavioral data is pseudonymized and does not include users' personal details.

- *Social data* — Social data refers a user’s behavior on social networks, such as Sina Weibo and Tencent QZone, including the content the user shares from websites or apps via social sharing toolbars, and the content the user posts, shares on the social networks, his or her “social graph,” such as his or her “friends” and “followers” and other behavior data the user publicly shares on social networks. Social data demonstrates that a specific user is engaged in certain particular topics or content online on social media. An example of social data would be the name of a restaurant being recommended by a particular user via his or her social network account. We obtain social data by installing our proprietary sharing toolbars and software development kits on websites and apps, as well as through API connections with major social networks.
- *Demographic data* — Demographic data refers to a user’s age, gender, income level and geographic location. In addition to inferred demographic information through our data tracking and profiling analytic capabilities and technologies, we obtain actual demographic data from social media accounts through our strategic relationship with selected third-party data partners, including major internet companies in China.
- *Campaign performance data* — Campaign performance data refers to a user’s interaction with, and response to, a given marketing message, starting with such user’s click on the content and including the user’s interaction with the destination site to which the link leads, and all other actions taken by the user, including E-commerce transaction, clicks, registration or sign-ups, video viewing, and “follow” or “likes” on social media platforms. We obtain campaign performance data from websites and apps on which we have installed our proprietary sharing toolbars and software development kits, in managing client campaigns, and through our data collaboration arrangements with selected third-party data partners.

We distill structured variables from large volume of unstructured data to construct context-rich user profiles. In the 30 days leading up to March 31, 2020, we analyzed approximately 930.8 million active profiled users, whose profiles include on average 22 attributes, including user demographics, geographic location, device preference, spending history, personal interest and other online or offline behavioral pattern. We “pre-package” our user profiles into audience groups that can be utilized by specific industry verticals for precise targeting. Data involving our user profiles and audience groups are continuously fed into our content distribution opportunity matching process, enabling marketers to make cost-efficient decisions on real-time audience engagement opportunities and continuously optimize these decisions to access and activate their target audience through different channels.

### ***Our Data Analytics Capabilities and Technologies***

We apply data science technologies extensively throughout the online marketing cycle to support audience tracking, profiling and segmentation and to execute cost-efficient decisions on real-time audience engagement. We also launched a strategic growth initiative on enterprise solutions, leveraging our data analytics expertise and experience in online marketing. Our proprietary data analytics capabilities and technologies include:

### ***Deep Learning and Artificial Intelligence***

- *Audience tracking engine* — Our audience tracking engine monitors our audience across various devices and channels to identify which user has been interacting with what content, through which devices and the environment the user is in. It also uses cookies and other digital fingerprinting technologies, which take into account social network IDs, browsing behavior, network usage, IP addresses, surfing patterns, and device features, to recognize, identify, and re-identify a user across multiple channels, devices, and geographic locations, including de-duplication of multiple devices to a user.
- *Contextual analysis engine* — Our contextual analysis engine parses all data properties to understand the context and content which audiences are interacting in and with, including news articles, social networks, search engines, mobile apps, etc. These help understand what a user is interested in, including product categories, brand names, product names, keywords, and the depth of their interest.
- *Natural language processing algorithms* — Our natural language processing algorithms, or NLP, are important elements of our contextual analysis engine. We use these algorithms to extract structure from unstructured data, so that it can be processed and analyzed effectively. Our NLP algorithms are designed to understand and analyze Chinese and English languages and their usage in various contexts. They enable the extraction of information about entities, correlations, sentiments and emotions from vast amounts of text converted from audio and video streams and other digital content. In addition, we combine deep learning techniques with our natural language processing capabilities to further enhance the accuracy of attributes of our user profiles.

## **Predictive Analytics**

- *User profiling engine* — Combining the data collected through, and processed by, our contextual analysis engine and audience tracking engine, our user profiling engine infers the user’s interest, demographic, intent and other features through multi-dimensional data drill down and dynamic correlation analysis. In addition, we employ various models and algorithms on user profiles to expand and provide more breadth and depth on each user profile. As of March 31, 2020, we had designed an aggregate of 186 data labels for our user profiles.
- *Profile Segmentation Algorithms* — We use various algorithms to organize user profiles, which are generated and updated dynamically in real time, responding to real time changes in user interests and needs. This allows for accurate and detailed segmentation of user interests through multiple dimensions, e.g. by user interest keywords and user interest categories.

## **Real-Time Matching Technologies**

- *Real-time user engagement algorithms* — Our real time user engagement algorithms execute marketing decisions based on a wide range of parameters, including predictions on click-through rate and conversion rate, inventory price, inventory safety and inventory segment, and consider audience compatibility, demographics, and frequency capping or other budgeting restrictions among other parameters, to compute the most cost-efficient decisions on real-time audience engagement opportunities.
- *Online continuous real-time bid optimization algorithms* — Our online continuous real-time bid optimization algorithms consider a wide range of parameters, including purchasing efficiency, predicted conversion rate, return on media value, budget allocation efficiency, inventory safety, and what marketers are willing to pay to dynamically optimize our bidding and pricing strategies. Our real-time bid optimization algorithms continuously sieve through a large volume of user engagement opportunities per day to decide which are the best possible opportunities to engage with.

## **Data Privacy and Security**

We collect data solely to analyze audience and campaign performance. In order to identify each user profile, we assign a random profile number with each new profile. We then use that number as the anonymous identification for the profile and associate it with all related data. In general we do not collect personally identifiable information. If such information is inadvertently obtained by us, our policy is to immediately delete such information.

We treat all information we collect as confidential. We have set up proper control such as encryption and access right on these information. We do not disclose any information we gather from a marketer or any third party data partner unless such disclosure is approved by it, which in turn has obtained end user consent.

We have put in place appropriate physical, electronic and managerial procedures to safeguard and secure our data assets, including to prevent and detect any unauthorized access and data breach, to preserve their integrity and to ensure their appropriate use.

- On the software level, we maintain login information across all our computer systems to control access, and individuals with different levels or job duties are assigned different levels of access permissions. For example, only high-level technology personnel, including head of system operations and certain other technical developments leaders have root access to our operation system; and only database managers have access to the relevant database. We have central controls to govern user roles and permissions.
- On the hardware levels, our servers are located at our offices and IDCs, and only system operation personnel have access to our servers. In addition, we have established hardware firewall where all traffic is inspected and filtered according to a comprehensive set of rules. We conduct comprehensive security reviews of our data assets on a regular basis and ad hoc security reviews from time to time as special needs arise.
- We also perform the monitoring and maintenance of our data privacy and security mechanism on a regular basis.
- We perform regular vulnerability scanning on website or web application to identify any weak configuration or vulnerabilities. We apply patch regularly and fix any configuration issues.
- We monitor any suspicious network traffic regularly including unexpected outgoing traffic such as huge data exfiltration volume and suspicious DNS query. We gather any events or alerts from servers and endpoints with security information and event management facility to set up alerts for any abnormal events or potential security breach.
- We secure and monitor privileged access, particularly on Internet accessible accounts such as web or cloud hosting, and implement multi-factor authentication on these accounts.

We give sufficient priority to develop and upgrade our mechanism to protect data and prevent data leakage. We also endeavor to build up cyber threat intelligence capability to complement the detection mechanisms.

### **Our Technology Infrastructure**

Our platform is built on a highly scalable and reliable cloud-based technology architecture. This allows us to harness large quantities of real-time data and ensures high speed performance at a large scale to accommodate more clients and increased complexity of their online marketing campaigns.

- *Real-time analytics* — Our cloud-based technology architecture is built to be fully distributed while having a single unified access layer. Large amounts of data are ingested through multiple highly-optimized points and analyzed using both offline batch processing and online real-time processing through streaming technologies. This architecture allows us to combine multiple data dimensions and apply various machine learning algorithms in real-time to our data, providing the most up-to-date and accurate representations of a user's traits and online behavior.
- *Scalability* — With modular architecture that is built to be horizontally scalable, our platform can be easily expanded as data storage requirements and client base increase. Our data repositories are clustered and our data processing architecture is distributed in several cities in China and Hong Kong, which supports efficient expansion. When need arises, we can easily add servers and integrate them into our existing server clusters as either data nodes or processing nodes. In addition, load balancing technology helps us improve distribution of workloads across multiple computing components, optimizing resource utilization and minimizing response time.
- *Reliability* — Our technology layers have built hardware redundancy and will switch if errors are detected. We built our platform on a distributed computing architecture. Furthermore, our data processing architecture is located within the same cities where servers of major ad exchanges in China are located, facilitating low latency access and reliability as we bid for content distribution opportunities in real time.

### **Our Content Distribution Channels**

We provide marketers with one-stop access to a wide variety of cross-channel content distribution opportunities in China through our deep relationship with content distribution channel partners. For example, we purchase or promote content distribution opportunities on content distribution channels, including premium channels such as Tencent, Baidu, Google and Alibaba. Media cost for content distribution opportunities on Tencent, Baidu, Google and Alibaba channels in aggregate accounted for 89.1%, 91.1% and 87.4% of our media costs in 2017, 2018 and 2019, respectively. Media cost for content distribution opportunities on our largest and second largest channel partners accounted for 80.8% and 6.6% of our media cost in 2019, respectively.

Our content distribution opportunities span the mobile and PC channels, and include various formats such as video and traditional banner ad. Our content distribution channel partners primarily include mobile and online publishers, major search engines and ad exchanges. In the 30 days leading up to March 31, 2020, we covered approximately 125,000 mobile apps and 2.3 million websites. In 2019, our gross billing from mobile marketing solutions and other marketing solutions amounted to US\$576.2 million and US\$54.1 million, accounting for 89.9% and 8.4% of our gross billing, respectively. In 2019, our net revenues from mobile marketing solutions and other marketing solutions amounted to US\$171.1 million and US\$17.9 million, accounting for 85.8% and 9.0% of our net revenues, respectively.

We generally enter into annual framework agreements with content distribution channel partners, which set out each party's rights and responsibilities with respect to the relevant content distribution opportunities. For example, we are generally required to examine advertising content to ensure its compliance with applicable laws and content distribution channel partners' policies. We are also generally required to prepay media cost, which is based on pricing models determined by content distribution partners and calculated based on content distribution partners' tracking. In addition, these agreements generally provide for certain rebates or incentives, generally calculated as a percentage of marketing spend, that we are entitled to should the marketing spend during the terms exceed specified thresholds.

We collaborate with many of our content distribution channel partners. Our product, technology and data engineering division work closely with the respective technology teams in our channel partners to ensure the compatibility of our tracking tools and access to content distribution opportunities. For example, in June 2018, we announced a strategic partnership with Ctrip.Com International Ltd., a top online travel agency player in China, to augment travel marketing solutions for international brands aiming to reach the rising number of outbound travelers from China. In the same month, we also announced a strategic partnership with Bilibili Inc., a leading video sharing website focused on content for the Chinese youth market. This collaboration will help international and local brands more effectively target the large Generation Z and Millennial userbase of Bilibili. In August 2019, we engaged in a strategic partnership with Beijing Xiaodu Interactive Entertainment Technology Ltd, formerly known as Baidu video, to become its exclusive advertising partner outside of the Chinese marketplace. We believe this partnership will provide global brands with the ability to target Chinese consumers through video convergence marketing.

In November 2018, we made a controlling investment in Shanghai Myhayo Technology Co., Ltd., a content distribution channel and a mobile content aggregator of articles and short videos in the PRC, which presents customized feeds to users via its mobile application. In February 2020, we agreed to make a controlling investment in Optimal Power Limited, a subsidiary wholly owned by Creative Big Limited. As of the date of this annual report, we are still in the process of negotiating and finalizing the terms of a definitive agreement for this investment, and we expect to complete the investment in the second quarter of 2020. As part of the transaction, Creative Big Limited will inject certain premium media licensing assets into Optimal Power Limited covering a number of jurisdictions in Asia-Pacific. We believe this investment will broaden our content distribution channels and enrich offerings of our online marketing solutions. However, we still primarily rely on third-party content distribution channels to access content distribution opportunities.

In addition to basic cooperation on access to content distribution opportunities, we collaborate closely with our content distribution partners on product research and development to stay at the forefront of marketing technology innovation and facilitate optimal audience engagement. For example, we launched MoTV mobile SDK through cooperation with certain leading apps in China, which is an in-app video app that provides blue-ray quality ad viewing experience.

## **Our Clients**

We sell our solutions primarily by entering into sales contracts with entities or marketing agencies, including marketing campaign contracts for our online marketing solutions. We treat entities which enter into sales contracts with us and incur spending during the relevant period as our clients. Therefore, we count specific sub-brands or divisions within the same brand or holding company as distinct clients so long as we have signed campaign contracts with different entities. On the other hand, even though multiple campaign contracts may be involved, we only record one single client if those contracts with us are signed by the same entity. Our clients include both marketers who have direct contractual relationships with us, or direct marketer clients, and marketing agency clients. Our “end marketers,” or “marketers” comprise marketers we serve, either directly or through marketing agencies, regardless if they have direct contractual relationship with us. In 2019, we had 3,481 marketers, including 1,793 marketers represented by our marketing agency clients.

Our marketers span a diverse array of industry segments, with E-commerce, entertainment and media, personal care and beauty, automobile and petroleum, and travel and hospitality being among the top five in terms of gross billing contribution in 2019. They also feature companies of different sizes, including more than 270 multinational companies in 2019, respectively, as well as small and medium-sized enterprises. Our marketers come from a variety of regions, with headquarters in Europe, North America, or Asia. In determining the geographic classification of revenue, we look at the geographic location of our subsidiary or VIE which executed the marketing campaign contract. Our subsidiaries or VIE in China generally are our signing entities for marketing campaign contracts with clients which are based in China. Our Singapore subsidiary generally is our signing entity for marketing campaign contracts with clients based in Southeast Asia. Our Hong Kong subsidiaries generally are our signing entities for marketing campaign contracts with other clients.

We have been strategically optimizing the client base, in particular, for other marketing solutions, to focus on profitability and liquidity. As a result of these efforts, our gross billing per client increased by US\$127,422, or 83.7%, from US\$152,318 in 2017 to US\$279,740 in 2018, and by US\$44,699, or 16.0%, from US\$279,740 in 2018 to US\$324,439 in 2019. Relatedly, the total number of clients that we served decreased by 12.3% from 1,630 in 2017 to 1,429 in 2018. The total number of clients increased by 38.2% from 1,429 in 2018 to 1,975 in 2019, primarily attributable to our increased ability to cater to the growing market demand.

In 2017, we did not derive over 10% of our net revenues from a marketer. In 2018, we derived 14% of our net revenues from a marketer in the entertainment industry. In 2019, we did not derive over 10% of our net revenues from a marketer. These marketers utilized our mobile marketing solutions under specified-action arrangement and therefore, revenue from these marketers was recognized on a gross basis. Their marketing campaign contracts were for a term of one year and contained terms similar to that under the marketing campaign contracts we generally enter into with other marketers utilizing similar solutions.

## **Sales, Business Development and Account Management**

Our sales and business development workforce is mainly focused on attracting more clients for our mobile marketing solutions, optimizing the client base, in particular, for our other marketing solutions to focus on profitability and liquidity, and attracting more clients to use our marketing solutions and enterprise solutions. Leveraging our existing positions and reputations in industry sectors where we already have a strong presence, we are able to attract more marketers in those sectors. In addition, we are focused on diversifying our client base. We have partnered with local marketing agencies at selected first and second-tier cities in China to expand our client base in industry segments where we have relatively less presence, as well as to attract and retain high quality small and medium-sized enterprises to use our solutions on a self-serve basis. Furthermore, our sales and business development team works closely with overseas marketing agencies and channel partners in the home countries of overseas marketers, who help promote our solutions to overseas marketers.

Our sales and business development team is organized by geographic region, and is further divided into groups that focus on sales to marketers or to marketing agencies in each geographic region.

Supporting our sales and business development team are our account managers under our operational support team, who help maintain and grow the accounts of our clients. While our intuitive user interfaces are designed to enable clients to easily deploy and utilize our solutions themselves with minimal customer support, we make online and telephonic helpdesk facilities available and provide onsite engineering support to clients and also assign account managers for our direct marketer clients and some of our marketing agency clients. Our account managers provide consultative services on the use of our solutions, and in addition, for our managed service clients, more in-depth servicing on campaign planning, execution and result measurement and analysis. As of December 31, 2019, we had 432 employees for sales, business development and account management.

We use a variety of traditional and web-based channels to drive our brand awareness and generate demand, including through direct marketing, print advertising in trade journals, offline sales efforts and client referrals. We regularly attend trade shows and industry conferences, and speak to the press about the latest trends in China's digital market industry and developments in our solution offerings. In addition, we periodically post case studies and observations and analysis on industry trends on our website and social media, including our WeChat public account.

## **Research and Development**

We are committed to continually enhancing and innovating our solutions, technologies and technical infrastructure. Our current R&D initiatives include development of an integrated one-stop system where our marketers can collaborate with their agencies, vendors or third-party collaborators in a consolidated manner to implement marketing initiatives or plan, execute and manage marketing campaigns across PC, mobile and TV channels.

Our R&D process is demand and innovation driven and involves collaborative efforts, including from our other functional teams, including sales and marketing, and product and operation support. Our R&D process advocates adaptive planning, iterative and incremental development cycles, and encourages rapid and flexible response to change. We typically release new solution features or improvements every week.

## **Intellectual Property**

We have developed all of the key technologies supporting our platform and solutions in-house. Our intellectual property rights are a key component of our success. We rely on a combination of trademark and trade secret laws, and contractual restrictions, including through confidentiality, non-disclosure invention assignment agreements with our key employees, consultants and third parties with whom we do business, to establish, maintain and protect our proprietary information and other intellectual property.

Notwithstanding these efforts, we cannot be sure that any intellectual property we own will not be challenged, invalidated, or circumvented or that such intellectual property will be commercially useful in protecting our brand, products, services and technology.

As of December 31, 2019, we had two patents and 40 computer software copyrights in China, and 22 registered trademarks in China and Hong Kong.

## **Competition**

China's independent online marketing technology market is highly competitive, fragmented and rapidly changing. We mainly compete with independent online marketing technology companies in China that offer online marketing solutions through demand side platform and use advanced technologies to optimize marketing campaigns for marketers.

We compete for online marketing revenue based on many factors, including our ability to deliver return on marketing expenditure at scale, client trust, geographic reach, breadth and depth of relationships with publishers, ad exchanges, ad networks and other participants in the online marketing ecosystem, comprehensiveness of solutions and service offerings, pricing structure and competitiveness, cross-channel capabilities, accessibility and user-friendliness of solutions and brand awareness. We compete for content distribution opportunities based on our ability to maximize the value of content distribution opportunities for content distribution channels partners, provide them with a wide array of solutions covering various types of content distribution opportunities and our ability to increase fill rates. While our industry is evolving rapidly and is becoming increasingly competitive, we believe that our highly scalable and flexible business model, large Chinese consumer data set, and omni-channel, targeted audience reach, proprietary, cutting-edge technologies, strong, diverse and loyal client base, deep knowledge and familiarity with China's online marketing industry, and visionary leadership enable us to remain competitive.

In addition, independent online marketing technology platforms face competitive pressure from large and well-established internet companies, such as Alibaba, Baidu, Tencent and Google, which have established stronger and broader presence across the online marketing ecosystem and have significantly more financial, marketing and other resources, more extensive client base and broader supplier relationship, and longer operating histories and greater brand recognition than we do. While we believe that we do not directly compete with these large and well-established internet companies for marketing spend as we promote their content distribution opportunities or purchase their content distribution opportunities in the ordinary course of our business in connection with our execution of marketing campaigns, and these companies generally do not provide integrated online marketing solutions the way we do, they are major players in the online marketing technology industry as they provide online marketing technology and offer services and offer solutions that help marketers achieve one or more aspects of their marketing goals in one or more phases of their online marketing cycle. In addition, these large and well-established companies control content distribution channels and would directly compete with us should we vertically expand our business to own or operate content distribution channels in the future.

Online marketing technology platforms also face competition from marketing agencies, who may have their own relationships with content distribution channels and can directly connect marketers with such channels. Furthermore, online marketing technology platforms continue to face competition from traditional media including direct marketing, television, radio, cable and print advertising companies.

With respect to our newly launched SaaS-based enterprise solutions, there are currently few direct competitors in this relatively new and evolving area in China. However, we anticipate competition to increase based on clients' demands for these type of products. We may face competitions from local companies who are working on the enterprise solutions, new cloud computing and artificial intelligence. We may also face potential competition from international SaaS companies, which have longer operating histories, greater financial, technical, marketing, distribution, professional services or other resources and greater name recognition. In addition, many of our prospective competitors may have close relationship with our existing and new clients and bear an extensive knowledge of this industry. As a result, they may be able to respond more quickly to new or emerging technologies and changes in clients' requirements, or devote greater resources to the development, promotion and sale of their products.

## **Regulation**

This section sets forth a summary of the most significant regulations or requirements that affect our business activities in the PRC or our shareholders' right to receive dividends and other distributions from us.

We operate in an increasingly complex legal and regulatory environment. We are subject to a variety of PRC and foreign laws, rules and regulations across numerous aspects of our business. This section sets forth a summary of the principal PRC laws, rules and regulations relevant to our business and operations in the PRC.

### ***Regulations on Advertising Business***

The Advertising Law of the People's Republic of China, promulgated by the Standing Committee of the National People's Congress on April 24, 2015 and became effective on September 1, 2015 and was amended on October 27, 2018, is the principal law regulating our business. This law regulates contents of advertisements, codes of conduct for advertising, and the supervision and administration of advertising industry. It also stipulates that advertisers, advertising operators, and advertisement publishers shall abide by the Advertising Law and other laws and regulations, be honest and trustworthy, and compete in a fair manner in advertising business. According to the Advertising Law, advertising operators and advertisement publishers shall examine the relevant certification documents and verify the contents of advertisements in accordance with laws and regulations. According to the Advertising Law, if advertising operators know or should have known the content of the advertisements is false or deceptive but still provide advertising design, production and agency services in connection with the advertisements, they might be subject to penalties, including confiscation of revenue and fines, and the competent PRC authority may suspend or revoke their business licenses. In addition, the Regulations on the Administration of Advertisement, promulgated by the State Council on October 26, 1987 requires the advertising operators to submit applications to the industry and commerce authorities for approval and registration. During the course of business, advertising operators are required to check papers or certificates and examine the contents of advertisements. According to this regulation, advertising operators may not publish, broadcast, install or post any advertisements which violate the provisions of the relevant regulations.

On July 4, 2016, the State Administration for Industry and Commerce (SAIC) promulgated the Interim Measures for the Administration of Internet Advertising, or Interim Measures on Internet Advertising to regulate advertising activities conducted via the internet. According to the Interim Measures on Internet Advertising, advertisements published or distributed via the internet shall not interfere with users' normal use of the internet. For example, advertisements published on web page pop-up windows or in others forms shall be clearly marked with a "close" sign to give the users an opportunity to close them out. No entity or individual may induce users to click on the contents of an advertisement through deception. An internet advertisement publisher or advertising operator, shall establish and maintain an acceptable registration, examination and file management system for its advertisers; examine, verify and record the identity information of each advertiser. The Interim Measures on Internet Advertising also require internet advertisement publishers and advertising operators to verify related supporting documents, check the contents of the advertisement and prohibits them from designing, producing, providing services or publishing any advertisement if the content and the supporting documents do not match each other or the documentary evidence thereof are insufficient.

The Advertising Law defines an “advertising operator” as any natural person, legal person or other organization that agrees to provide advertising design, production and agency services for advertisers. Therefore, we are an “advertising operator” as provided in the Advertising Law and thus subject to the content review and conduct requirements of the Advertising Law and the Interim Measures on Internet Advertising, or the Interim Measures. To facilitate compliance with Advertising Law, we have developed certain advertising business management rules containing these mandatory content review and conduct requirements, and are establishing internal mechanisms to implement these rules.

Prior to June 29, 2015, we were regulated by the Regulations for the Administration of Foreign-Invested Advertising Enterprises, promulgated by the State Administration for Industry and Commerce and the MOFCOM, which prescribed certain conditions on foreign investors that invest in companies in advertising business in China. Among other things, such foreign investors shall have at least three years’ track record primarily engaging in advertising business and shall have obtained an Opinion on the Approval of Foreign-invested Advertising Enterprise Project, which is issued by the State Administrative of Industry and Commerce or its local counterparts. The Regulations for the Administration of Foreign-Invested Advertising Enterprises were abolished on June 29, 2015 by the State Administration for Industry and Commerce after consultation with the MOFCOM.

### ***Regulations on Internet Information Service***

There are several principal regulations on internet information service business, including (i) the Telecommunications Regulations of the People’s Republic of China, promulgated by the State Council on September 25, 2000 and most recently amended on February 6, 2016, (ii) the Administrative Measures on Internet Information Services, promulgated by the State Council on September 25, 2000, or the Internet Measures, and (iii) the Catalogue of Telecommunication Services, issued by the State Council on September 25, 2000, and most recently amended by the MIIT on December 28, 2015. According to the Internet Measures, “internet information services” include provision of information services through the internet to internet users. Since we have websites that provides information, including description of our business and solutions, to online users, we are deemed to be providing “internet information service,” and are therefore subject to these regulations on internet information services. Pursuant to the Internet Measures, there are two categories of internet information services, namely, services of an operative nature and services of a non-operative nature. The Internet Measures require providers of operative internet information services to obtain an operating permit and imposes certain restrictions on the percentage of foreign ownership in such providers. Our business does not involve the provision of operative internet information services, and therefore, we are not required to obtain any operating permits or subject to foreign ownership restrictions under these regulations. In accordance with the Internet Measures, we shall complete a filing process for our website, which has been done.

### ***Regulations on Value-added Telecommunication Services***

On September 25, 2000, the State Council promulgated the Telecommunications Regulations of the People’s Republic of China, or the Telecom Regulations, which was amended on July 29, 2014 and February 6, 2016. The Telecom Regulations is the primary PRC law governing telecommunication services and sets out the general regulatory framework for telecommunication services provided by PRC companies. The Telecom Regulations distinguishes between “basic telecommunication services” and “value-added telecommunication services.” The Telecom Regulations defines value-added telecommunications services as telecommunications and information services provided through public network infrastructures. Pursuant to the Telecom Regulations, commercial operators of value-added telecommunications services must first obtain an operating license from the MIIT, or its provincial level counterparts.

The Catalog of Telecommunications Business, or the Catalog, which was issued as an attachment to the Telecom Regulations and updated in June 11, 2001, February 21, 2003, December 28, 2015 and June 6, 2019, further categorizes value-added telecommunication services into two classes: Class 1 value-added telecommunication services and Class 2 value-added telecommunication services. Information services provided via cable networks, mobile networks or internet fall within Class 2 value-added telecommunications services.

On July 3, 2017, the MIIT issued the Measures on the Administration of Telecommunications Business Operating Permits, or the Telecom License Measures, which became effective on September 1, 2017, to supplement the Telecom Regulations. The Telecom License Measures sets forth the types of licenses required to operate value-added telecommunications services and the qualifications and procedures for obtaining such licenses. The Telecom License Measures also provides that an operator providing value-added services in multiple provinces is required to obtain an inter-regional license, whereas an operator providing value-added services in one province is required to obtain an intra-provincial license. Any telecommunication services operator must conduct its business in accordance with the specifications in its license.

### ***Regulations on Foreign Direct Investment in Value-Added Telecommunications Companies***

Foreign direct investment in telecommunications companies in China is governed by the Provisions on the Administration of Foreign-Invested Telecommunications Enterprises, which was promulgated by the State Council on December 11, 2001 and amended on September 10, 2008 and February 6, 2016. These regulations require that foreign-invested value-added telecommunications enterprises in China must be established as Sino-foreign equity joint ventures and that the foreign investors may acquire up to 50% equity interests in such joint ventures. In addition, a major foreign investor in a value-added telecommunications business in China must demonstrate a good track record and experience in operating value-added telecommunications businesses. Moreover, foreign investors that meet these requirements must obtain approvals from the MIIT and the MOFCOM, to provide value-added telecommunication services in China and the MIIT and the MOFCOM retain considerable discretion in granting such approvals.

On July 13, 2006, the Ministry of Information Industry, or the MII, released the Notice on Strengthening the Administration of Foreign Investment in the Operation of Value-added Telecommunications Business, or the MII Notice, pursuant to which, for any foreign investor to invest in telecommunications businesses in China, a foreign-invested telecommunications enterprise must be established and such enterprise must apply for the relevant telecommunications business operation licenses. Furthermore, under the MII Notice, domestic telecommunications enterprises may not rent, transfer or sell a telecommunications business operation license to foreign investors in any form, and they may not provide any resources, premises, facilities and other assistance in any form to foreign investors for their illegal operation of any telecommunications business in China. In addition, under the MII Notice, the internet domain names and registered trademarks used by a value-added telecommunication service operator shall be legally owned by such operator or its shareholders.

Furthermore, the Guidance Catalog of Industries for Foreign Investment, or the Foreign Investment Catalog, the latest version of which was promulgated jointly by MOFCOM and the National Development and Reform Commission, or the NDRC, on June 28, 2017 and became effective on July 28, 2017, classifies businesses into three categories with regard to foreign investment: (i) “encouraged,” (ii) “restricted,” and (iii) “prohibited.” The latter two categories are included in the negative list, which was first introduced into the Foreign Investment Catalog in 2017, and listed, in a unified manner, the restrictive measures for the entry of foreign investment. On June 28, 2018, MOFCOM and NDRC jointly promulgated the Special Administrative Measures (Negative List 2018) for Foreign Investment Access, or the Special Administrative Measures, which replaced the negative list attached to the Foreign Investment Catalog in 2017. On June 30, 2019, MOFCOM and NDRC jointly promulgated the Special Administrative Measures (Negative List 2019) for Foreign Investment Access, which replaced the negative list attached to the Foreign Investment Catalog in 2018. Industries that are not listed in the Foreign Investment Catalog or the Special Administrative Measures are permitted areas for foreign investments, and are generally open to foreign investment unless specifically restricted by other PRC regulations. Our business falls under value-added telecommunications services, which are listed under the Special Administrative Measures.

In view of these restrictions on foreign direct investment in value-added telecommunications services and certain other types of businesses under which our business may fall, we have established domestic consolidated affiliated entities to engage in value-added telecommunications services. For a detailed discussion of our consolidated affiliated entities, see “Item 4. Information on the Company—C. Organizational Structure.” Due to the lack of interpretative guidance from the relevant PRC governmental authorities, there are uncertainties regarding whether PRC governmental authorities would consider our corporate structure and contractual arrangements to constitute foreign ownership of a value-added telecommunications business. In order to comply with PRC regulatory requirements, we operate a substantial portion of our business through our consolidated affiliated entities, which we have contractual relationships with but we do not have actual ownership interests in. If our current ownership structure is found to be in violation of current or future PRC laws, rules or regulations regarding the legality of foreign investment in value-added telecommunications services and other types of businesses on which foreign investment is restricted or prohibited, we could be subject to severe penalties.

### ***Regulations on Internet Content Providers***

The Administrative Measures on Internet Information Services, or the Internet Content Measures, which was promulgated by the State Council on September 25, 2000 and amended on January 8, 2011, set out guidelines on the provision of internet information services. The Internet Content Measures specifies that internet information services regarding news, publications, education, medical and health care, pharmacy and medical appliances, among other things, are required to be examined, approved and regulated by the relevant authorities. The Internet Content Measures specifies a list of prohibited content. Internet information providers are prohibited from producing, copying, publishing or distributing information that is humiliating or defamatory to others or that infringes the legal rights of others. Internet information providers that violate such prohibition may face criminal charges or administrative sanctions. If any prohibited content is found, they must remove the content immediately, keep a record of such content and report to the relevant authorities. In accordance with Provisions on the Governance of Network Information Content Ecology promulgated by Cyberspace Administration of China on December 15, 2019, which became effective on March 15, 2020, the utilization of the personalized algorithm recommendation technology tanken in the internet content provision service shall be in compliance with all the requirements as stated above as well.

The Internet Content Measures classifies internet information services into commercial internet information services and non-commercial internet information services. Commercial internet information services refer to services that provide information or services to internet users with charge. A provider of commercial internet information services must obtain the value-added telecommunications business operation license.

### ***Regulations on Privacy Protection***

According to the Internet Measures, “internet information services” means the activity of providing information services through the internet to internet users. Since we have websites that provide information to internet users, we are considered an internet information service provider under the Internet Measures and are therefore, subject to regulations relating to the protection of privacy, including prohibitions on producing, copying, publishing or distributing information that is humiliating or defamatory to others or that infringes on the lawful rights and interests of others. Internet information service providers that violate the prohibition could face criminal charges or administrative sanctions by the PRC security authorities. In addition, relevant authorities may suspend their services, revoke their licenses or temporarily suspend or close down their websites.

Under the Several Provisions on Regulating the Market Order of Internet Information Services, issued by MIIT, in December 2011, internet information service providers are prohibited from collecting any user-related information that can reveal the identity of the user whether by itself or when used in combination with other information, or providing any such information to third parties without the consent of that user. Internet information service providers must expressly inform the users of the method, content and purpose to collect and process such user personal information, and may only collect such information necessary for their services. Internet information service providers are also required to properly maintain the user personal information and, in case of any leakage or likely leakage of such information, must take remedial measures immediately and report any material leakage to the telecommunications regulatory authority.

In December 2012, the Decision on Strengthening Network Information Protection promulgated by the Standing Committee of the National People’s Congress emphasizes the need to protect electronic information that contains personal identification information and other private data. The decision requires internet information service providers to establish and publish policies regarding the collection and use of personal electronic information, to take necessary measures to ensure the security of the information and to prevent leakage, damage or loss.

Furthermore, the MIIT’s Rules on Protection of Personal Information of Telecommunications and Internet Users issued in July 2013 contain detailed requirements upon the activities collecting or using personal information of users in the provision of telecommunication service and internet information service, which mainly include: (i) the telecommunication business operators or internet information service providers shall expressly advise users about the purpose, method and scope of the collection or use of information, and the ways to inquire or correct information, and the consequences of refusal to provide information, etc.; (ii) the telecommunication business operators or internet information service providers shall not go beyond the necessary and the purpose for their service, nor by means of deceiving, misleading or force or in violation of the laws, regulations or the agreements between the parties; (iii) any collected information shall be kept in strict confidence with adequate measures; (iv) shall establish user complaint handling mechanism to accept complaints from the users, and etc. Internet information service providers, including us, may subject to penalties, including fines, warnings, orders to correct and even criminal charges if failed to fulfill the aforesaid requirements.

### ***Regulations on Information Security, Censorship and Privacy***

The Standing Committee of the National People’s Congress, China’s national legislative body, enacted the Decisions on the Maintenance of Internet Security on December 28, 2000 and amended them on August 27, 2009 that may subject persons to criminal liabilities in China for any attempt to use the internet to: (i) gain improper entry to a computer or system of strategic importance; (ii) disseminate politically disruptive information; (iii) leak state secrets; (iv) spread false commercial information or (v) infringe upon intellectual property rights. In 1997, the Ministry of Public Security issued the Administration Measures on the Security Protection of Computer Information Network with International Connections which was amended in 2011 and prohibits using the internet to leak state secrets or to spread socially destabilizing materials. If an ICP license holder violates these measures, the PRC government may revoke its ICP license and shut down its websites. Pursuant to the Ninth Amendment to the Criminal Law issued by the Standing Committee of the National People’s Congress on August 29, 2015, effective on November 1, 2015, any ICP provider that fails to fulfill the obligations related to internet information security as required by applicable laws and refuses to take corrective measures, will be subject to criminal liability for (i) any large-scale dissemination of illegal information; (ii) any severe effect due to the leakage of users’ personal information; (iii) any serious loss of evidence of criminal activities; or (iv) other severe situations, and any individual or entity that (i) sells or provides personal information to others unlawfully or (ii) steals or illegally obtains any personal information will be subject to criminal liability in severe situations.

The Cybersecurity Law of the PRC, or the Cybersecurity Law, which was promulgated on November 7, 2016 by the Standing Committee of the National People's Congress and came into effect on June 1, 2017, provides that network operators shall meet their cyber security obligations and shall take technical measures and other necessary measures to protect the safety and stability of their networks. Under the Cybersecurity Law, network operators are subject to various security protection-related obligations, including: (i) network operators shall comply with certain obligations regarding maintenance of the security of internet systems; (ii) network operators shall verify users' identities before signing agreements or providing certain services such as information publishing or real-time communication services; (iii) when collecting or using personal information, network operators shall clearly indicate the purposes, methods and scope of the information collection, the use of information collection, and obtain the consent of those from whom the information is collected; (iv) network operators shall strictly preserve the privacy of user information they collect, and establish and maintain systems to protect user privacy; (v) network operators shall strengthen management of information published by users, and when they discover information prohibited by laws and regulations from publication or dissemination, they shall immediately stop dissemination of that information, including taking measures such as deleting the information, preventing the information from spreading, saving relevant records, and reporting to the relevant governmental agencies.

### ***Regulations on Foreign-related Surveys Measures***

According to the Foreign-related Surveys Measures, foreign-related surveys include: (i) market and social surveys conducted under the entrustment or financial aid of any overseas organization, individual, or the agency of any overseas organization in China; (ii) market and social surveys conducted in cooperation with any overseas organization, individual, or the agency of any overseas organization in China; (iii) market surveys lawfully conducted by the agency of any overseas organization in China; and (iv) market and social surveys of which the materials and results are to be provided to any overseas organization, individual, or the agency of any overseas organization in China. Any foreign-related market survey must be conducted by a foreign-related survey institution and no individual or organization may conduct any foreign-related survey without a license for foreign-related surveys. According to the Foreign-related Surveys Measure and the Catalogue of Industries for Guiding Foreign Investment (2017 version), only a domestic enterprise or a sino-foreign enterprise which meet the several requirements stipulated in the Foreign-related Surveys Measures can apply for license for the foreign-related survey. On June 30, 2019, MOFCOM and NDRC jointly promulgated the Special Administrative Measures (Negative List 2019) for Foreign Investment Access, which replaced the negative list attached to the Foreign Investment Catalog in 2018. Industries that are not listed in the Special Administrative Measures are permitted areas for foreign investments, and are generally open to foreign investment unless specifically restricted by other PRC regulations.

We collect data of multiple kinds and from multiple sources through our consolidated subsidiaries in the PRC and Hong Kong. These data include users' search, browse, E-commerce and offline behavioral data, social data, demographic data, campaign performance data, and certain technical data, from our proprietary tracking tools, our marketers, publishers and ad exchanges in connection with marketing campaigns, and from collaboration with selected third-party data partners. Except for the general definitions of market surveys and social surveys defined in the Foreign-related Surveys Measures, there is no further clarification or specific guidance on the characteristics and scope of "foreign-related surveys". In the opinion of our PRC counsel, Jingtian & Gongcheng, the collection and use of data of our business do not fall within the scope of "foreign-related survey" and therefore we are not required to obtain a foreign-related survey license under the Foreign-related Survey Measures as currently interpreted and enforced by the relevant PRC regulatory authorities. However, in light of these uncertainties and out of prudence, we through OptAim Network, our VIE entity, applied for and were granted the foreign-related survey license on June 6, 2017 by the Chinese National Bureau of Statistics.

### ***Regulations on Intellectual Property Rights***

China has adopted legislation governing intellectual property rights, including copyrights, trademarks and patents. China is a signatory to major international conventions on intellectual property rights and is subject to the Agreement on Trade Related Aspects of Intellectual Property Rights as a result of its accession to the World Trade Organization in December 2001.

#### ***Computer Software Copyright***

On March 1, 2013, the Regulations for the Protection of Computer Software promulgated by the State Council came into effect. These regulations are formulated for protecting the rights and interests of computer software copyright owners, encouraging the development and application of computer software and promoting the development of software business.

## *Patent*

Patents in the PRC are principally protected under the Patent Law of the People's Republic of China, which was amended by the Standing Committee of the National People's Congress in 2008 and became effective on October 1, 2009. This law is formulated for protecting the rights and interests of patentees, encouraging invention, promoting the application of inventions, enhancing innovation capacity, and facilitating the advancement of science and technology, and the economic and social development. Under this law, the duration of a patent right is either 10 years or 20 years from the date of application, depending on the type of patent right.

## *Trademark*

The PRC Trademark Law, promulgated in 1983 and most recently amended in 2019, which such amendments became effective on November 1, 2019, protects the proprietary rights with respect to registered trademarks. The Trademark Office under the State Administration for Industry and Commerce handles trademark registrations and may grant a term of 10 years for registered trademarks, which may be extended for another 10 years upon request. Trademark license agreements shall be filed with the Trademark Office for record. In addition, if a registered trademark is recognized as a well-known trademark, the protection of the proprietary right of the trademark holder may reach beyond the specific class of the relevant products or services.

## *Domain Name*

The Ministry of Industry and Information Technology promulgated the Measures on Administration of Internet Domain Names, or the Domain Name Measures, on August 24, 2017, which took effect on November 1, 2017 and replaced the Administrative Measures on China Internet Domain Name promulgated by MIIT on November 5, 2004. According to the Domain Name Measures, the MIIT is in charge of the administration of PRC internet domain names. The domain name registration follows a first-to-file principle. Applicants for registration of domain names shall provide the true, accurate and complete information of their identities to domain name registration service institutions. The applicants will become the holder of such domain names upon the completion of the registration procedure. These measures are formulated with reference to the norms on administration of internet domain names worldwide, for the purposes of promoting the healthy development of China's internet sector and guaranteeing the safe and reliable operation of the internet domain name system in the PRC.

## ***Regulations on Employment***

There are several principal rules and regulations in the PRC with respect to rights and obligations of employers and labors, including (i) the Labor Law of the People's Republic of China, promulgated by the Standing Committee of the National People's Congress effective on January 1, 1995, amended and became effective on December 29, 2018, or the Labor Law, (ii) the Labor Contract Law of the People's Republic of China, promulgated by the Standing Committee of the National People's Congress effective on July 1, 2013, or the Labor Contract Law, (iii) the Social Insurance Law of the People's Republic of China, promulgated by the Standing Committee of the National People's Congress effective on July 1, 2011, amended and became effective on December 29, 2018, or the Social Insurance Law, which was, and (iv) the Regulations on the Management of Housing Provident Fund, promulgated by the State Council on March 24, 2002 and amended and became effective on March 4, 2019.

According to the Labor Law and the Labor Contract Law, employers must execute written labor contracts with full-time employees. All employers must compensate their employees with wages equal to at least the local minimum wage standard. All employers are required, among other things, to establish a system for labor safety and workplace sanitation, and to provide employees with workplace safety training. Violations of the Labor Law and the Labor Contract Law may result in the imposition of fines and other administrative penalties. For serious violations, criminal liability may arise. In addition, pursuant to the Social Insurance Law, employers in the PRC are required to provide employees with welfare schemes covering pension insurance, unemployment insurance, maternity insurance, work-related injury insurance, medical insurance and housing funds.

## ***Regulations on Taxation***

### *PRC Enterprise Income Tax*

PRC enterprise income tax is calculated based on taxable income, which is determined under (i) the PRC Enterprise Income Tax Law, promulgated by the National People's Congress of China and implemented on January 1, 2008, amended and became effective on December 29, 2018, or the EIT Law, and (ii) the implementation rules to the EIT Law promulgated by the State Council and implemented on January 1, 2008 and amended on April 23, 2019. The EIT Law imposes a uniform enterprise income tax rate of 25% on all resident enterprises in the PRC, including foreign-invested enterprises and domestic enterprises, unless they qualify for certain exceptions. According to the EIT Law and its implementation rules, the income tax rate of an enterprise that has been determined to be a high and new technology enterprise may be reduced to 15% with the approval of relevant tax authorities.

In addition, according to the EIT Law, enterprises that are incorporated outside the PRC but have their “de facto management body” located in China may be considered as PRC resident enterprises and may therefore be subject to PRC enterprise income tax at the rate of 25% on their worldwide income. The implementation rules of the EIT Law define “de facto management body” as “establishment that carries out substantial and overall management and control over the manufacturing and business operations, personnel, accounting, properties, etc. of an enterprise.” And the Notice Regarding the Determination of Chinese-Controlled Overseas Incorporated Enterprises as PRC Tax Resident Enterprises on the Basis of De Facto Management Bodies, or Circular 82, further provides certain specific criteria to determine whether the “de facto management body” of a PRC-controlled enterprise that is incorporated offshore is located in China. Although this circular applies only to offshore enterprises controlled by PRC enterprises or PRC enterprise groups, not those controlled by PRC individuals or foreigners, the criteria set forth in the circular may reflect the State Administration of Taxation’s general position on how the “de facto management body” text should be applied in determining the tax resident status of all offshore enterprises.

According to Circular 82, a Chinese-controlled offshore-incorporated enterprise will be regarded as a PRC tax resident by virtue of having its “de facto management body” in China and will be subject to PRC enterprise income tax on its global income only if all of the following conditions are met: (i) the primary location of the day-to-day operational management and the place where the enterprise performs its duties are in the PRC; (ii) decisions relating to the enterprise’s financial and human resource matters are made or are subject to approval of organizations or personnel in the PRC; (iii) the enterprise’s primary assets, accounting books and records, company seals and board and shareholder resolutions are located or maintained in the PRC; and (iv) 50% or more of voting board members or senior executives habitually reside in the PRC. In the event that we are considered a PRC resident enterprise, we would be subject to the PRC enterprise income tax at the rate of 25% on our worldwide income.

We are organized under the laws of the Cayman Islands and not controlled by a PRC enterprise or PRC enterprise group, we therefore do not believe that we meet all of the conditions above. But if we are considered a PRC resident enterprise by the competent tax authority, we would be subject to the PRC enterprise income tax at the rate of 25% on our worldwide income.

#### *Income Tax for Share Transfers*

According to the Notice on Strengthening Administration of Enterprise Income Tax for Share Transfers by Non-Resident Enterprises, or Circular 698, promulgated by the SAT on December 10, 2009, which is replaced by the Circular on Issues of Tax Withholding regarding Non-PRC Resident Enterprise Income Tax, or Circular 37, promulgated by the SAT on October 17, 2017, and the Announcement of the State Administration of Taxation on Several Issues Concerning the Enterprise Income Tax on Indirect Property Transfer by Non-Resident Enterprises, or Circular 7, promulgated by the SAT on February 3, 2015, if a non-resident enterprise transfers the equity interests of a PRC resident enterprise indirectly by transfer of the equity interests of an offshore holding company (issued by a PRC resident enterprise) without a reasonable commercial purpose, the PRC tax authorities have the power to reassess the nature of the transaction and the indirect equity transfer may be treated as a direct transfer. As a result, the gain derived from such transfer, which means the equity transfer price less the cost of equity, may be subject to PRC withholding tax at a rate of up to 10%. Under the terms of Circular 7, a transfer that meets all of the following circumstances will be deemed to have no reasonable commercial purposes: (i) over 75% of the value of the equity interests of the offshore holding company are directly or indirectly derived from PRC taxable properties; (ii) at any time during the year before the indirect transfer, over 90% of the total properties of the offshore holding company are investments within PRC territory, or in the year before the indirect transfer, over 90% of the offshore holding company’s revenue is directly or indirectly derived from PRC territory; (iii) the function performed and risks assumed by the offshore holding company are insufficient to substantiate its corporate existence; or (iv) the foreign income tax imposed on the indirect transfer is lower than the PRC tax imposed on the direct transfer of the PRC taxable properties.

There is uncertainty as to the application of Circular 37 and Circular 7. Circular 37 and Circular 7 may be determined by the PRC tax authorities to be applicable to our prior private equity financing transactions that involved non-resident investors, if any of such transactions were determined by the tax authorities to lack reasonable commercial purpose. As a result, we and our non-resident investors in such transactions may be taxed under Circular 37 and Circular 7, and we may be required to expend valuable resources to comply with Circular 37 and Circular 7 or to establish that we should not be taxed under the general anti-avoidance rule of the EIT Law, which may have a material adverse effect on our financial condition and results of operations.

#### *Value Added Tax*

On January 1, 2012, the State Council launched a pilot value-added tax, or VAT, reform program, or the Pilot Program, applicable to businesses in selected industries, such as industries involving the leasing of tangible movable property, transportation services, research and development and technical services, information technology services, cultural and creativity services, logistics ancillary services and attestation and consulting services. Businesses subject to the Pilot Program are subject to VAT instead of business tax. On May 24, 2013, the Ministry of Finance and the SAT issued the Circular on Tax Policies in the Nationwide Pilot Collection of Value Added Tax in Lieu of Business Tax in the Transportation Industry and Certain Modern Services Industries. On August 1, 2013, the Pilot Program was implemented throughout China. On March 23, 2016, SAT and Ministry of Finance promulgated Circular on Comprehensively Promoting the Pilot Program of the Collection of Value-added Tax in Lieu of Business

Tax, which became effective on May 1, 2016. According to the 2016 Circular, general taxpayers who are engaged in technical services, information technology services, cultural creativity services, logistics supporting services, leasing services, attestation consulting services and/or other modern service industries are subject to a VAT at the rate of 6%. On November 19, 2017, the State Council promulgated The Decisions on Abolishing the Provisional Regulations of the PRC on Business Tax and Amending the Provisional Regulations of the PRC on Value-added Tax, or Order 691. According to the VAT Law and Order 691, all enterprises and individuals engaged in the sale of goods, the provision of processing, repair and replacement services, sales of services, intangible assets, real property and the importation of goods within the territory of the PRC are the taxpayers of VAT. The VAT tax rates generally applicable are simplified as 17%, 11%, 6% and 0%, and the VAT tax rate applicable to the small-scale taxpayers is 3%. The Notice of the Ministry of Finance and the SAT on Adjusting Value-added Tax Rates, or the Notice, was promulgated on April 4, 2018 and came into effect on May 1, 2018. According to the Notice, the VAT tax rate of 17% and 11% are changed into 16% and 10%, respectively. On March 20, 2019, the Ministry of Finance, State Taxation Administration and General Administration of Customs jointly promulgated the Relevant Policies Notice on Deepening Reform of VAT Tax, or the Notice 39, effective on April 1, 2019, which lowers the VAT tax rate of 16% and 10% to 13% and 9%, respectively.

#### *Dividends Withholding Tax*

We are a Cayman Islands exempted limited liability company, used as a holding company and a substantial part of our income may come from dividends we receive from our PRC subsidiary by distributions to our Hong Kong subsidiaries. Pursuant to the EIT Law and its implementation rules, and Special Double Taxation Avoidance Agreement, dividends generated after January 1, 2008 and distributed to our Hong Kong subsidiaries by our PRC subsidiary are subject to withholding tax at a rate of 5%.

The PRC and the Hong Kong Special Administrative Region entered into the Arrangement for the Avoidance of Double Taxation and Prevention of Fiscal Evasion with respect to Taxes on Income, or Special Double Taxation Avoidance Agreement, on August 21, 2006. This arrangement reduces the withholding tax rate in respect of the payment of dividends by a PRC enterprise to a Hong Kong enterprise, such as from our PRC subsidiaries to our Hong Kong subsidiaries, from the statutory rate of 10% to 5% if the Hong Kong enterprise directly holds at least 25% of the PRC enterprise. Pursuant to the Notice of the State Administration of Taxation on the Issues concerning the Application of the Dividend Clauses of Tax Agreements, or Circular 81, a Hong Kong resident enterprise must meet the following conditions, among others, in order to benefit from the reduced withholding tax rate: (i) it must be a company; (ii) it must directly own the required percentage of equity interests and voting rights in the PRC resident enterprise; and (iii) it must have directly owned such required percentage in the PRC resident enterprise throughout the 12 months prior to receiving the dividends. Furthermore, the Announcement of the State Taxation Administration on Issuing the Administrative Measures for Entitlement to Treaty Benefits for Non-resident Taxpayers, or Non-Resident Tax Treatments Measures, which became effective in October 14, 2019, require that non-resident taxpayers collect, gather and retain relevant materials for future reference in accordance with the provisions of this measure and be administrated and supervised subsequently by the relevant tax authority in order for the reduced withholding tax rate to apply. There are also other conditions for the reduced withholding tax rate including that Hong Kong recipient must be the beneficial owner of the income.

As uncertainties remain regarding the interpretation and implementation of the EIT Law and its implementation rules, we cannot assure you that, if we are deemed a PRC resident enterprise, any dividends to be distributed by us to our non-PRC shareholders and ADS holders would not be subject to any PRC withholding tax.

#### *Regulations on Foreign Exchange*

The Regulations of the People's Republic of China on Foreign Exchange Control, promulgated by the State Council on August 5, 2008, are principal regulations on foreign currency exchange in the PRC. Under these regulations, the Renminbi is freely convertible for current account items after due process, including distribution of dividends, trade-related foreign exchange transactions and service-related foreign exchange transactions, whereas foreign exchange for capital account items, such as direct investments or loans, require prior approval of and registration with the SAFE.

#### *Capital Settlement and Overseas Remittance of Foreign-Invested Enterprises*

On May 13, 2013, the SAFE promulgated the Provisions on Foreign Exchange Administration Over Direct Investment Made by Foreign Investors in the PRC in order to promote and facilitate foreign investors to make direct investment in the PRC. Under these provisions, a foreign-invested enterprise may remit funds abroad for purchase and remit foreign exchange with relevant banks from capital reduction, liquidation, advance recovery of investment, profit distribution, etc. after due registration. On June 1, 2015, SAFE Circular 19 came into effect, which introduced a reform of the administration to the settlement of the foreign exchange capital for foreign-invested enterprises national wide based on the pilot experience in certain regions in the early days. On June 9, 2016, SAFE Circular 16 was promulgated, which included more detailed provisions on capital account settlement and overseas remittance for foreign-invested enterprises. This notice allows foreign-invested enterprises to settle their foreign exchange receipt on a discretionary basis and explicitly includes foreign debts and repatriated funds raised through overseas listing as foreign exchange receipts that can be settled discretionally in addition to foreign exchange capital, but continues to prohibit foreign-invested enterprises from using the Renminbi fund converted from their foreign exchange capitals for expenditure beyond their business scopes, investment in security market, offering of entrustment loans or purchase of any investment properties. Although this makes a further relaxation of policies on the control over foreign exchange settlement of capital accounts, in practice, there are still several specific requirements that affect the abilities of the PRC enterprises to access the offshore financing capitals.

According to Interim Administrative Measures for the Record-filing of the Incorporation and Change of Foreign-invested Enterprises promulgated by the Ministry of Commerce, or the MOC, effective on October 8, 2016, foreign investors making capital contributions to their PRC subsidiaries shall make necessary filings in the Foreign Investment Comprehensive Management Information System, or FICMIS. Pursuant to the Interim Measures on the Management of Foreign Debts promulgated jointly by the SAFE, Ministry of Finance, the NDRC, effective on March 1, 2003, PRC foreign-invested companies may not procure loans which exceed the difference between its registered capital and its total investment amount as recorded in FICMIS.

On January 12, 2017, the People's Bank of China promulgated the Circular on Management of Cross-border Financing. According to this circular, an enterprise shall file the cross-border financing contracts for the record with the Capital Project Information System of the SAFE after the execution date of the contracts but no later than three working days before the withdrawal date. In addition, according to the Circular on Promoting the Administrative Reform, promulgated by the NDRC on September 14, 2015, any medium or long term loan to be provided by foreign entities to domestic enterprises must be recorded and registered by the NDRC.

#### *Outbound Investment and Financing and Roundtrip Investment*

On July 4, 2014, the Circular on the Relevant Issues Concerning Foreign Exchange Control on Domestic Residents Outbound Investment and Financing and Roundtrip Investment through Special Purpose Vehicles promulgated by the SAFE came into effect. This circular prescribes operational procedures and registration requirements for roundtrip investment through special purpose companies and others. In particular, it states that a domestic resident shall apply to the relevant local branch of the SAFE for foreign exchange registration of overseas investment, prior to making contribution to a special purpose company with legitimate domestic or overseas assets or interests.

#### *Equity Incentive Plans*

On February 15, 2012, the Notice of SAFE on Relevant Issues Concerning the Foreign Exchange Administration for Domestic Individuals' Participation in Equity Incentive Plans of Overseas-Listed Companies came into effect. This notice prescribes foreign exchange registration requirements for domestic individuals such as directors, supervisors, officials and other employees in relation to equity incentive plans of companies listed abroad, including employee stock ownership plans, employee stock option plans and other equity incentive programs permitted by applicable laws and regulations. Under the notice, individuals who participate in equity incentive plans of an overseas listed company shall, through the domestic companies they serve, collectively entrust a domestic agency to handle matters such as foreign exchange registration with the SAFE, account opening, and funds transfer and remittance, and also entrust an overseas institution to handle matters such as exercise of options, purchasing and sale of related equity and transfer of funds. An individual may use his/her own foreign currency funds in his/her personal foreign currency deposit account, RMB funds or other legitimate domestic funds to participate in an equity incentive plan.

#### *Regulations on Dividend Distribution*

The principal legislation with respect to payment or distribution of dividends by wholly foreign-owned enterprises include (i) the Company Law of the People's Republic of China, most recently amended by the Standing Committee of the National People's Congress as of October 26, 2018, and (ii) Foreign Investment Law of the People's Republic of China, which was promulgated on March 15, 2019 and effective from January 1, 2020. Under these laws, wholly foreign-owned enterprises in the PRC may pay dividends only out of accumulated profits, after setting aside annually at least 10% of accumulated after-tax profits as reserve fund, if any, until such time as the accumulative amount of such fund reaches 50% of the enterprise's registered capital. A wholly foreign-owned enterprise may allocate a portion of its after-tax profits to its employee welfare and bonus funds at its discretion. These reserve funds may not be distributed as cash dividends.

#### *Regulations on Foreign Investment*

According to the Negative List 2019, there is no restriction on the foreign-invested advertising company as advertising industry falls within neither the catalogue of prohibitions nor the catalogue of restrictions. Moreover, the Regulations for the Administration of Foreign-Invested Advertising Enterprises, which prescribed certain restrictions on foreign investors were abolished on June 29, 2015.

According to the Negative List 2019, market survey falls into the catalogue of restrictions, which means foreign investors can engage in businesses in this industry only through a sino-foreign enterprise, while social survey falls into the catalogue of prohibitions.

On March 15, 2019, the National People’s Congress approved the Foreign Investment Law, which came into effect on January 1, 2020 on December 26, 2019, the State Council adopted Implementing Rules for the Foreign Investment Law of the People’s Republic of China which took effect from January 1, 2020, to interpret and implement the Foreign Investment Law. These rules replaced the trio of existing laws regulating foreign investment in China, namely, the Sino-foreign Equity Joint Venture Enterprise Law, the Sino-foreign Cooperative Joint Venture Enterprise Law and the Wholly Foreign-invested Enterprise Law, together with their implementation rules and ancillary regulations. The organization form and activities of foreign-invested enterprises shall be governed by the laws of the Company Law of the People’s Republic of China and the Partnership Enterprise Law of the People’s Republic of China. Foreign-invested enterprises established before the implementation of the Foreign Investment Law may retain the original business organization and so on within five years after the implementation of the Foreign Investment Law.

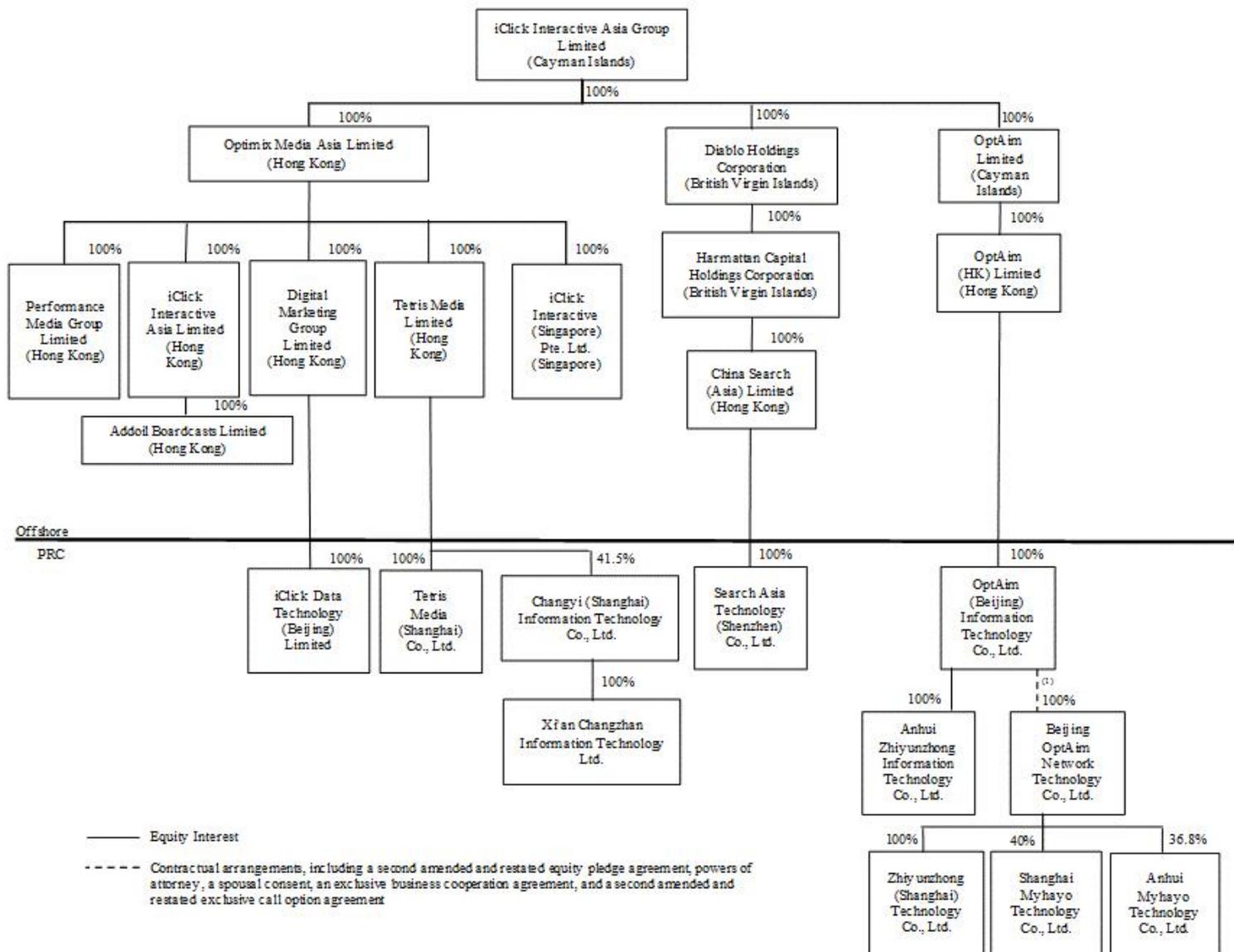
The Foreign Investment Law is formulated to further expand opening-up, promote foreign investment and protect the legitimate rights and interests of foreign investors. According to the Foreign Investment Law, foreign investments are entitled to pre-entry national treatment and are subject to negative list management system. The pre-entry national treatment means that the treatment given to foreign investors and their investments at the stage of investment access shall not be less favorable than that of domestic investors and their investments. The negative list management system means that the state implements special administrative measures for access of foreign investment in specific fields. Foreign investors shall not invest in any forbidden fields stipulated in the negative list effective on June 2018 and shall meet the conditions stipulated in the negative list before investing in any restricted fields.

The Foreign Investment Law does not mention the relevant concept and regulatory regime of VIE structures, since it is relatively new, uncertainties still exist in relation to its interpretation and implementation. Under the Foreign Investment Law, “foreign investment” refers to the investment activities directly or indirectly conducted by foreign individuals, enterprises or other entities in China. Though the Foreign Investment Law does not explicitly classify contractual arrangements as a form of foreign investment, there is no assurance that foreign investment via contractual arrangement would not be interpreted as a type of indirect foreign investment activities under the definition. In addition, the definition contains a catch-all provision which includes investments made by foreign investors through means stipulated in laws or administrative regulations or other methods prescribed by the State Council. Therefore, it still leaves leeway for future laws, administrative regulations or provisions promulgated by the State Council to provide for contractual arrangements as a form of foreign investment.

If our contractual arrangements is considered a form of foreign investment, then we may be required to complete the MOC market entry clearance, and we face uncertainties as to whether such clearance can be timely obtained, or at all. If we are not able to obtain such clearance when required, our VIE structure may be regarded as invalid and illegal. As a result, we would not be able to (i) continue our business in China through our contractual arrangements with the VIE and shareholders of the VIE, (ii) exert control over the VIE, (iii) receive the economic benefits of the VIE under such contractual arrangements, or (iv) consolidate the financial results of the VIE. Were this to occur, our results of operations and financial condition would be materially and adversely affected and the market price of our ADSs may decline. Furthermore, if future laws, administrative regulations or provisions prescribed by the State Council mandate further actions to be taken by companies with respect to existing contractual arrangements, we may face substantial uncertainties as to whether we can complete such actions in a timely manner, or at all. Failure to take timely and appropriate measures to cope with any of these or similar regulatory compliance challenges could materially and adversely affect our current corporate structure, corporate governance and business operations.

### C. Organizational Structure

The following chart illustrates our company’s organizational structure, including our principal subsidiaries and consolidated affiliated entities as of March 31, 2020:



(1) The nominee shareholders of OptAim Network are Ms. Jie Jiao and Mr. Jian Tang, who hold 51% and 49% equity interests in OptAim Network, respectively. Ms. Jie Jiao was our former chief financial officer, and Mr. Jian Tang is our co-founder, director and chief executive officer. As of the date of this annual report, Mr. Jian Tang and Ms. Jie Jiao are the nominee shareholders of OptAim Network, and we are arranging the transfer of Ms. Jie Jiao's equity interest in OptAim Network to an affiliate of our company.

We conduct substantially all our operations through the following consolidated subsidiaries:

- iClick Interactive Asia Limited: primarily focusing on providing both mobile marketing solutions and other marketing solutions to Hong Kong and overseas clients
- Tetris Media Limited and Tetris Media (Shanghai) Co., Ltd.: primarily focusing on providing our other marketing solutions to agency clients and its business are gradually being transferred to iClick Interactive Asia Limited
- Performance Media Group Limited: primarily focusing on providing mobile marketing solutions and other marketing solutions to Hong Kong clients
- China Search (Asia) Limited and its subsidiary: promoting content distribution opportunities for the publisher under our sales agency arrangement
- iClick Interactive (Singapore) Pte. Ltd: primarily focusing on providing both mobile marketing solutions and other marketing solutions to Singapore and other overseas clients
- iClick Data Technology (Beijing) Limited (previously named iClick Interactive (Beijing) Advertisement Co., Ltd.): primarily focusing on providing our other marketing solutions to PRC clients
- Anhui Zhiyunzhong Information Technology Co., Ltd.: primarily focusing on providing mobile marketing solutions to PRC clients
- OptAim (Beijing) Information Technology Co., Ltd.: primarily focusing on providing mobile marketing solutions to PRC clients through our VIE and the VIE's subsidiary
- Beijing OptAim Network Technology Co., Ltd. which is our VIE, and its subsidiary: primarily focusing on providing mobile marketing solutions to PRC clients
- Changyi (Shanghai) Information Technology Co., Ltd. and Xi'an Changzhan Information Technology Ltd.: primarily focusing on providing enterprise solutions
- Shanghai Myhayo Technology Co., Ltd. and Anhui Myhayo Technology Co., Ltd.: primarily focusing on providing mobile content distributions in PRC

After the abolishment of the foreign ownership restriction in advertising business, we had been transferring the advertising business previously operated by our VIE, OptAim Network, primarily consisting of our mobile marketing solution business, to our wholly-owned subsidiaries. As of December 31, 2018, our wholly-owned subsidiaries had replaced OptAim Network as contracting party for all our mobile marketing solution business. In November 2018, OptAim Network acquired the controlling investment in Shanghai Myhayo Technology Co., Ltd. and Anhui Myhayo Technology Co., Ltd. in November 2018 and March 2019 respectively, providing a content distribution channel and a mobile content aggregator of articles and short videos in the PRC, which presents customized feeds to users via its mobile application.

### **Contractual Arrangements with OptAim Network**

Foreign ownership in advertising companies used to be subject to certain restrictions under the PRC laws and regulations. For example, according to the Administrative Provisions on Foreign-Invested Advertising Enterprises, foreign investors were required to meet several conditions in order to invest in the PRC advertising business, such as a minimum number of years of advertising-related experience and an approval from the relevant PRC regulatory authority. OptAim is a Cayman Islands company and OptAim Beijing, its PRC subsidiary, is considered an FIE. To comply with the then-effective PRC laws and regulations, including the Administrative Provisions on Foreign-Invested Advertising Enterprises, OptAim Beijing entered into a set of contractual arrangements with OptAim Network and its shareholders. The laws and regulations that imposed restrictions on foreign ownership in advertising companies, including the Administrative Provisions on Foreign-Invested Advertising Enterprises were abolished in June 2015.

Under the Measures on the Administration of Foreign-related Surveys, or the Foreign-related Surveys Measures, promulgated by the National Bureau of Statistics of China on October 13, 2004, no individual or organization may conduct any foreign-related survey without a license for foreign-related survey granted by the National Bureau of Statistics in China or its local counterparts. Under the Catalogue for the Guidance of Foreign Investment Industries, promulgated by the Ministry of Commerce and National Development and Reform Commission on June 28, 2017, only a domestic enterprise or a sino-foreign enterprise which meets the several requirements stipulated in the Foreign-related Surveys Measures can apply for a license for the foreign-related survey. We do not believe our collection and use of multiple kinds of data from multiple sources in China to improve the cost-effectiveness of marketing campaigns for marketers in and outside China fall within the scope of “foreign-related survey” under the Foreign-related Survey Measures. However, there are uncertainties under the PRC laws whether such activities may be deemed as “foreign-related survey,” which would require a foreign-related survey license from the National Bureau of Statistics in China or its local counterparts. In light of these uncertainties and out of prudence, we, through our VIE, OptAim Network, applied for and were granted a foreign- related survey license on June 6, 2017. If the PRC regulatory authorities disagree with our interpretation of what would constitute foreign-related survey and enforcement practices on foreign-related survey licensing requirement or if we expand our business scope to engage in activities falling within the scope of foreign-related survey, we will need to continue to rely on OptAim Beijing’s contractual arrangements with OptAim Network and its shareholders to conduct certain of our operations in China, including to transfer such operations to our VIE to the extent they are deemed foreign-related survey. See “Item 3. Key Information—D. Risk Factors—Risk Related to Our Corporate Structure—We rely on the contractual arrangements that establish the structure for certain of our operations in China and we will need to rely on the contractual arrangements when and to the extent our operations are deemed as foreign-related survey.”

Under the relevant PRC laws, commercial operators of value-added telecommunication services, which refer to providers of telecommunications and information services through public network infrastructures that provide information or services to internet users with a charge, shall obtain a value-added telecommunications business operation license. See “Regulations -Regulations on Value-added Telecommunication Services” and “—Regulations on Internet Content Providers.” It is unclear whether Myhayo’s business model would render it a commercial operator of value-added telecommunication services under the relevant PRC laws, in which case Myhayo would be required to hold a value-added telecommunication license. Pursuant to the Negative List 2019, jointly promulgated by the MOFCOM and NDRC on October 24, 2019, foreign investment in value- added telecommunication services is subject to certain restrictions. See “—Regulations—Regulations on Foreign Direct Investment in Value-Added Telecommunications Companies”. As a result, we made our controlling investment in Myhayo through OptAim Network, our VIE. In August 2019, Myhayo obtained the value-added telecommunication business operation license from the relevant local counterpart of MIIT.

The contractual arrangements between OptAim Beijing, OptAim Network and the shareholders of OptAim Network allow us to:

- exercise effective control over OptAim Network and its subsidiaries;
- receive substantially all of the economic benefits of OptAim Network and its subsidiaries; and
- have an exclusive option to purchase all or part of the equity interests and assets in OptAim Network.

As a result of these contractual arrangements, we have effective control over, and are the primary beneficiary of, OptAim Network and therefore treat OptAim Network and its subsidiaries as our consolidated affiliated entities under U.S. GAAP and have consolidated their financial results in our consolidated financial statements in accordance with U.S. GAAP.

The following is a summary of the currently effective contractual arrangements by and among OptAim Beijing, our wholly- owned subsidiary, OptAim Network, our consolidated VIE, the shareholders of OptAim Network and Zhiyunzhong.

#### ***Agreements that Provide Us with Effective Control over OptAim Network Second Amended and Restated Equity Pledge Agreement***

OptAim Beijing, OptAim Network and the shareholders of OptAim Network entered into a second amended and restated equity pledge agreement on May 26, 2017. Pursuant to the second amended and restated equity pledge agreement, each shareholder of OptAim Network has pledged all of his or her equity interest in OptAim Network to OptAim Beijing to guarantee the performance by such shareholder and OptAim Network of their respective obligations under the exclusive business cooperation agreement, powers of attorney and the second amended and restated exclusive call option agreement as well as their respective liabilities arising from any breach. If OptAim Network or any of its shareholders breaches any obligations under these agreements, OptAim Beijing, as pledgee, will be entitled to dispose of the pledged equity and have priority to be compensated by

the proceeds from the disposal of the pledged equity. Each of the shareholders of OptAim Network agrees that before his or her obligations under the contractual arrangements are discharged, he or she will not dispose of the pledged equity interests, create or allow any encumbrance on the pledged equity interests, or take any action which may result in any change of the pledged equity that may have material adverse effects on the pledgee's rights under this agreement without the prior written consent of OptAim Beijing. The second amended and restated equity pledge agreement will remain effective until OptAim Network and its shareholders discharge all their obligations under the contractual arrangements and pay out all consulting and services fees under the exclusive business cooperation agreement. We have completed the registration of the equity pledge with the relevant office of the Administration for Industry and Commerce in accordance with PRC Property Rights Law on June 21, 2017.

#### ***Powers of Attorney***

Through powers of attorney dated May 26, 2017, each shareholder of OptAim Network irrevocably authorizes OptAim Beijing or any person(s) designated by OptAim Beijing to act as his or her attorney-in-fact to exercise all of such shareholder's voting and other rights associated with the shareholder's equity interest in OptAim Network, such as the right to appoint directors, supervisors and officers, as well as the right to sell, transfer, pledge and dispose of all or a portion of the shares held by such shareholder. The powers of attorney will remain in force unless OptAim Beijing gives out any instruction in writing otherwise. Once the powers of attorney are terminated in whole or in part, each shareholder shall revoke his/her power of attorney to OptAim Beijing and immediately sign another power of attorney with the person(s) designated by OptAim Beijing.

#### ***Spousal Consent***

The spouse of Mr. Jian Tang signed a spousal consent letter on May 26, 2017. Mr. Jian Tang holds 49% equity interest in OptAim Network. Under the spousal consent letter, the signing spouse unconditionally and irrevocably agreed that she was aware of the disposal of OptAim Network shares held by Mr. Jian Tang in the following second amended and restated exclusive call option agreement, the abovementioned power of attorney, and the second amended and restated equity pledge agreement. The signing spouse confirmed not having any interest in the OptAim Network shares and committed not to impose any adverse assertions upon those shares. The signing spouse further confirmed that her consent and approval are not needed for any amendment or termination of the abovementioned agreements and committed that she shall take all necessary measures needed for the performance of those agreements.

#### ***Agreement that Allows Us to Receive Economic Benefits from OptAim Network Exclusive Business Cooperation Agreement***

OptAim Beijing, OptAim Network and Zhiyunzhong entered into an exclusive business cooperation agreement on January 16, 2015. Pursuant to this agreement, OptAim Beijing or its designated party has the exclusive right to provide OptAim Network and Zhiyunzhong with technical support, consulting services and other services. Without OptAim Beijing's prior written consent, OptAim Network and Zhiyunzhong shall not accept any technical support and services covered by this agreement from any third party. OptAim Network and Zhiyunzhong agree to pay service fees in an amount equal to 100% of their respective net income for the relevant period on a monthly basis. OptAim Beijing owns the intellectual property rights arising out of the provisions of services under this agreement. OptAim Network and Zhiyunzhong shall grant an irrevocable call option to OptAim Beijing to purchase all or any of their assets or business with the lowest price allowed by PRC law. Unless OptAim Beijing terminates this agreement, this agreement will remain effective until any party thereto is dissolved in accordance with PRC law.

#### ***Agreement that Provides Us with the Option to Purchase the Equity Interest in OptAim Network Second Amended and Restated Exclusive Call Option Agreement***

OptAim Beijing, OptAim Network and the shareholders of OptAim Network entered into a second amended and restated exclusive call option agreement on May 26, 2017. Pursuant to the second amended and restated exclusive call option agreement, the shareholders of OptAim Network have irrevocably granted OptAim Beijing or any third party designated by OptAim Beijing a second amended and restated exclusive call option to purchase all or part of their respective equity interests in OptAim Network. Until there is any evaluation request by PRC law, the purchase price is equal to RMB100 or the lowest price allowed by PRC law. Unless otherwise agreed, the shareholders of OptAim Network will immediately gift OptAim Beijing or any third party designated by OptAim Beijing with the purchase price after OptAim Beijing or any third party designated by OptAim Beijing exercises the option. OptAim Beijing may transfer all or part of its option under this agreement to a third party under the approval of the shareholders of OptAim Beijing. Without OptAim Beijing's prior written consent, the shareholders of OptAim Network shall not, among other things, amend its articles of association, increase or decrease the registered capital, sell, dispose of or set any encumbrance on its assets, business or revenue outside the ordinary course of business, enter into any material contract, merge with any other persons or make any investments, distribute dividends, or enter into any transactions which have

material adverse effects on its business. The shareholders of OptAim Network also jointly and severally undertake that they will not sale, transfer, pledge, or otherwise dispose of their equity interests in OptAim Network to any third party or create or allow any encumbrance on their equity interests. This agreement will remain effective until OptAim Beijing or any third party designated by OptAim Beijing has acquired all equity interest of OptAim Network from its shareholders.

In the opinion of Jingtian & Gongcheng, our PRC legal counsel:

- the ownership structures of OptAim Beijing and OptAim Network do not contravene any applicable PRC laws or regulations currently in effect; and
- the contractual arrangements among OptAim Beijing, OptAim Network, the shareholders of OptAim Network and Zhiyunzhong governed by PRC law are valid, binding and enforceable, and do not contravene any PRC laws or regulations currently in effect.

However, there are substantial uncertainties regarding the interpretation and application of current and future PRC laws, regulations and rules. Accordingly, the PRC regulatory authorities may in the future take a view that is contrary to or otherwise different from the above opinion of our PRC legal counsel. It is uncertain whether any new PRC laws or regulations relating to VIE structures will be adopted or if adopted, what they would provide. If the PRC government finds that the agreements that establish the structure for the operation of OptAim Network do not comply with PRC government restrictions on foreign investment in our businesses, we could be subject to severe penalties including being prohibited from continuing operations. See “Item 3. Key Information—D. Risk Factors—Risks Related to Our Corporate Structure—We rely on the contractual arrangements that establish the structure for certain of our operations in China and we will need to rely on the contractual arrangements when and to the extent our operations are deemed as foreign-related survey,” and “—Substantial uncertainties exist with respect to the newly enacted PRC Foreign Investment Law and how it may impact the viability of our current corporate structure, corporate governance and business operations.”

#### D. Property, Plant and Equipment

Our headquarters and principal executive office are located in Hong Kong, in an approximately 830 square-meter facility, under certain lease agreements expiring on December 31, 2021. As of December 31, 2019, we leased approximately 5,400 square-meter office space in China located in Beijing, Shanghai, Shenzhen, Anhui and Guangzhou, which primarily carry out the functions of technology and data engineering, sales and business development and operation support. Outside of China and Hong Kong, we also have subsidiaries or sales offices in Singapore, Taiwan, Korea, Thailand and London.

We lease all of our facilities and do not own any real property. Our leases will expire from 2020 to 2021, and we have renewed leases that expired on or before the date of this annual report. We believe that our current facilities are suitable and adequate to meet our current needs. If we require additional space, we expect to be able to obtain additional facilities on commercially reasonable terms.

#### **ITEM 4A. UNRESOLVED STAFF COMMENTS**

Not applicable.

#### **ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS**

##### A. Operating Results

*You should read the following discussion and analysis of our financial condition and results of operations in conjunction with our consolidated financial statements and the related notes included elsewhere in this annual report on Form 20-F. This discussion may contain forward-looking statements based upon current expectations that involve risks and uncertainties. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth under “Item 3. Key Information—D. Risk Factors” or in other parts of this annual report on Form 20-F.*

## Key Factors Affecting Our Results of Operations

We believe the key factors affecting our financial condition and results of operations include the following:

- Our ability to expand mobile app channels;
- Our ability to expand enterprise solutions;
- Our revenue models;
- Our ability to optimize client base and increase client spending;
- Our ability to enlarge audience data set, strengthen data analytics capabilities and innovate technologies; and
- Seasonality;

### *Our Ability to Expand Mobile App Channels*

Our future growth depends on our ability to expand our content distribution channels, in particular mobile app channels, to capture a larger share of the marketing spend in China. We have been prioritizing the execution of our mobile strategy since 2014 to capture a larger share of marketing spend on mobile apps, including through our acquisition of OptAim on July 24, 2015, which have significantly strengthened our mobile capabilities.

While marketing via non-mobile channels has been established for several years, marketing via mobile channels, in particular via mobile apps, which has a more dynamic competitive landscape, is a relatively new phenomena in China driven by recent innovations in mobile technologies and the growing popularity and prevalence of mobile devices and mobile apps. We have experienced and expect to continue to face significant competition for our mobile marketing solutions, which have resulted in a downward pricing pressure on our mobile marketing solutions. In addition, in light of the rising demand for marketing via mobile apps, mobile app publishers, especially popular mobile app publishers tend to command stronger bargaining power compared to their non-mobile app publisher counterparts, which has increased media costs for our mobile marketing solutions. Furthermore, consistent with the general industry trends for online marketing on mobile channels and on non-mobile channels, a higher percentage of marketing campaigns involving our mobile marketing solutions were conducted on a specified action (i.e., gross) basis while a higher percentage of marketing campaigns involving our other marketing solutions were conducted on a cost-plus (i.e., net) basis in 2019 compared to 2018. See “—Key Components of Results of Operations—Net Revenues” and “—Key Factors Affecting Our Results of Operations—Our revenue models.” Therefore, gross profit margins for our mobile marketing solutions were significantly lower than those for our other marketing solutions for the same periods historically, and we expect the trend to continue. As a result, an increase in the percentage of revenue from our mobile marketing solutions may have a positive impact on our gross billing and net revenues but a negative impact on our gross profit margin.

Furthermore, as we continue to focus on the growth of our mobile marketing solutions, we may, from time to time, prioritize on engaging with marketing agency clients, which may generate larger marketing spend per client compared to direct marketer clients. On the other hand, net revenues as a percentage of gross billing and gross profit margin tend to be lower for marketing agency clients, compared to direct marketer clients. Marketing agency clients represented 27.7%, 28.1% and 33.9% of our clients in 2017, 2018 and 2019, respectively.

We primarily rely on third-party content distribution channels to access content distribution opportunities. To further expand our content distribution network, we need to develop new and enhance our existing relationships with content distribution channel partners, which depends, in part, on our ability to continually generate sufficient marketing spend from our clients on these channels, especially mobile app channels. We also intend to strengthen our relationships with content distribution channel partners through technology collaboration to facilitate innovative and effective user engagement. In addition, in November 2018, we made a controlling investment in Myhayo, a content distribution channel and a mobile content aggregator of articles and short videos in the PRC, which presents customized feeds to users via its mobile application. In February 2020, we agreed to make a controlling investment in Optimal Power Limited, a wholly owned subsidiary of Creative Big Limited. As of the date of this annual report, we are still in the process of negotiating and finalizing the terms of a definitive agreement for this investment, and we expect to complete the investment in the second quarter of 2020. As part of the transaction, Creative Big Limited will inject certain premium media licensing assets into Optimal Power Limited covering a number of jurisdictions in Asia-Pacific.

### ***Our Ability to Expand Enterprise Solutions***

Our future growth also depends on our ability to expand our enterprise solutions. The markets for certain of our offerings remain relatively new and it is uncertain whether our efforts, and related investments, will ever result in significant profits for us. Also, if we are unable to develop enhancements to and new features for our existing services that keep pace with rapid technological developments, our business could be impacted. The success of our development, and implementation of new features and services depends on several factors, including the timely completion, introduction and market acceptance of the feature, service or enhancement by customers, administrators and developers, as well as our ability to integrate all of our service offerings and develop adequate selling capabilities in this new market. Failure in this regard may significantly impair our revenue growth as well as negatively impact our operating results if additional costs are not offset by additional revenues.

### ***Our Revenue Models***

We derive revenue for our marketing solutions business primarily from four sources and report them on either the net or gross basis: (i) revenue from incentives earned from the website publishers, for which we act as a sales agent for their content distribution opportunities, or the sales agency arrangement, which is reported as a net basis, (ii) revenue from performing cost-plus marketing campaigns, which is reported on a net basis, (iii) revenue from performing specified actions marketing campaigns (i.e., a CPM, CPC, CPA, CPS, CPL or ROI basis), which is reported on a gross basis; and (iv) revenue from SaaS products offering under our enterprise solutions business, which is reported on a gross basis and a net basis. Please see “—Key Components of Results of Operations—Net Revenues” above for more details.

With respect to our marketing solutions, the gross profit margins for our sales agency arrangement and cost-plus marketing campaigns are higher than that for our specified action marketing campaigns as cost of revenues for our sales agency arrangement and cost-plus marketing campaigns does not include media cost. As a result, an increase in the percentage of gross billing recognized as net revenues from performing specified actions marketing campaigns will have a positive impact on our net revenues and a negative impact on gross profit margin. On the other hand, an increase in the percentage of gross billing recognized as net revenues from our sales agency arrangement and from performing cost-plus marketing campaigns will have a negative impact on our net revenues and a positive impact on gross profit margin.

Our mobile marketing solutions, other marketing solutions, and enterprise solutions each represent a mixture of revenue recognized on gross basis and on net basis and the proportion of each fluctuates from period to period. Therefore our net revenues, net revenues as a percentage of gross billing, gross profit margin and the comparability of our financial results in one period to another may be affected by the relative proportion of our gross billing recognized as net revenues on a gross basis and a net basis. The relative proportions of gross billing recognized as net revenues on a gross basis and a net basis are affected by a variety of factors, in particular, the terms of the arrangements with our clients, including whether to conduct their marketing campaigns on a specified-action (i.e., gross) or cost-plus (i.e., net) basis in a particular period, which in turn depends on clients’ needs and goals.

### ***Our Ability to Optimize Client Base and Increase Client Spending***

Our growth and profitability are dependent upon our ability to optimize our client base and increase our clients’ spending related to marketing and customer management. We started a comprehensive review of our client base for other marketing solutions in 2016 to focus on profitability and liquidity. For example, we terminated relationships with certain clients for our other marketing solutions, which had relatively long account receivable cycles and yielded relatively low operating profit margins in 2016 and the first half of 2017. We have also been focused, and expect to continue our focus, on sales to direct marketer clients, which tend to command higher gross profit margin compared to agency clients. However, as we continue to focus on the growth of our mobile marketing solutions, we may, from time to time, prioritize on engaging with marketing agency clients, which may generate larger marketing spend per client compared to direct marketer clients. Furthermore, our growth and profitability also depend on our ability to attract more marketers to our self-service model, and to further diversify our client base to capture the growth in additional industry verticals and geographic markets.

Our ability to increase clients’ spending on our platform depends on whether our solutions can effectively address marketers’ evolving and diverse needs in a cost-efficient manner. To that end, we plan to develop and offer more tailored, innovative and user- friendly solutions and services and enhance our sales, marketing and account servicing efforts. For example, we strive to promote our newly launched enterprise solutions to clients by enhancing our ability to effectively identify and address clients’ needs on CRM and comprehensive and customized data acquisition, mining and analytics for real-time, data-driven and more accurate decision making.

### ***Our Ability to Enlarge Audience Data Set, Strengthen Data Analytics Capabilities and Innovate Technologies***

Our performance is significantly dependent on our ability to enlarge audience data set, strengthen data analytics capabilities and innovate technologies. This helps clients achieve more precise audience targeting and enables us to retain clients and increase their marketing spend. It also helps drive up our gross profit margin under our gross revenue model as we make better decisions about which content distribution opportunities to bid for and at which price, and better predict user interaction with a marketing message to achieve our clients' minimum key performance indicator, or KPI requirements without having to purchase additional content distribution opportunities and incur additional media cost. Such KPIs generally include target audience reach (i.e., the percentage of target audience we successfully engage through our platform), click-through rate (i.e., the ratio of users who click on a specific link to the number of total users who view a marketing message) and landing rate (i.e., the ratio of users who arrive at the clients' websites to the number of total users who view a marketing message). Furthermore, our ability to enlarge audience data set, strengthen data analytics capabilities and innovate technologies enables us to extend our data application across more aspects in online marketing and beyond to capitalize on more growth opportunities.

We plan to continue collaborating with clients and other third parties to increase the dimensions and varieties of our data assets and develop new strategic relationships to exploit new data sources and enlarge audience data set. We also plan to continue investing in our data science technologies and upgrading our technology infrastructure.

### ***Seasonality***

We have experienced seasonal fluctuations in revenue. The fourth quarter of each calendar year generally contributes the largest portion of our annual gross billing as marketers tend to allocate a significant portion of their online marketing budgets to that quarter, which coincides with Chinese consumers' increased purchases around the holidays and shopping events in that quarter, such as Single's Day on November 11 of each year. The first quarter of each calendar year generally contributes the smallest portion of our annual gross billing, primarily due to a lower level of allocation of online marketing budgets by marketers at the beginning of the calendar year in which the Chinese New Year holidays fall, during which time businesses in China are generally closed. We expect our gross billing to continue fluctuating based on seasonal factors that affect the online marketing industry as a whole.

### ***Critical Accounting Policies***

We prepare our consolidated financial statements in accordance with U.S. GAAP, which requires us to make judgments, estimates and assumptions that affect (i) the reported amounts of assets and liabilities, (ii) disclosure of contingent assets and liabilities at the end of each reporting period and (iii) the reported amounts of revenues and expenses during each reporting period. We continually evaluate these estimates and assumptions based on historical experience, knowledge and assessment of current business and other conditions, expectations regarding the future based on available information and reasonable assumptions, which together form a basis for making judgments about matters not readily apparent from other sources. Since the use of estimates is an integral component of the financial reporting process, actual results could differ from those estimates. Some of our accounting policies require higher degrees of judgment than others in their application. We consider the policies discussed below to be critical to an understanding of our financial statements as their application places the most significant demands on the judgment of our management. For further information on our critical accounting policies, see Note 2 to our consolidated financial statements.

### ***Consolidation of Variable Interest Entities***

Foreign ownership in advertising companies used to be subject to certain restrictions under PRC laws and regulations. To comply with the then-effective PRC laws and regulations, OptAim Beijing entered into a set of contractual arrangements with OptAim Network and its shareholders. The contractual arrangements between OptAim Beijing, OptAim Network and the shareholders of OptAim Network allow us to:

- exercise effective control over OptAim Network and its subsidiaries;
- receive substantially all of the economic benefits of OptAim Network and its subsidiaries; and
- have an exclusive option to purchase all or part of the equity interests and assets in OptAim Network when and to the extent permitted by PRC law.

Our consolidated financial statements include the financial statements of the Company, its subsidiaries, its VIE and the

VIE's subsidiaries for which we are the primary beneficiary. All transactions and balances among we, our subsidiaries, our VIE and the VIE's subsidiaries have been eliminated upon consolidation.

A subsidiary is an entity in which we, directly or indirectly, control more than one half of the voting powers; or has the power to appoint or remove the majority of the members of the board of directors; or to cast a majority of votes at the meeting of directors; or has the power to govern the financial and operating policies of the investee under a statute or agreement among the shareholders or equity holders.

A VIE is an entity in which we, or our subsidiary, through contractual agreements, bears the risks of, and enjoys the rewards normally associated with ownership of the entity. In determining whether we or our subsidiaries are the primary beneficiary, we considered whether it has the power to direct activities that are significant to the VIE's economic performance, and also our obligation to absorb losses of the VIE that could potentially be significant to the VIE or the right to receive benefits from the VIE that could potentially be significant to the VIE. OptAim Beijing, and ultimately we, hold all the variable interests of the VIE and its subsidiaries, and has been determined to be the primary beneficiary of the VIE.

In accordance with the contractual agreements among the OptAim Beijing, OptAim Network and the shareholders of OptAim Network, we have power to direct activities of the VIE, and can have assets transferred out of the VIE. Therefore, we consider that there is no asset in the VIE that can be used only to settle obligations of the VIE, except for registered capital and PRC statutory reserves of the VIE and the VIE's subsidiaries amounting to US\$2.0 million, US\$2.0 million and US\$2.0 million, respectively, as of December 31, 2017, 2018 and 2019. As the VIE was incorporated as limited liability company under the PRC Company Law, the creditors do not have recourse to our general credit for all the liabilities of the VIE. Currently there is no contractual arrangement that could require us to provide additional financial support to the VIE.

As we are conducting our PRC online advertising services business through OptAim Network, we will, if needed, provide such support on a discretion basis in the future, which could expose us to a loss.

We believe that the contractual arrangements among OptAim Beijing, OptAim Network and the shareholders of OptAim Network are in compliance with PRC law and are legally enforceable. However, uncertainties in the PRC legal system could limit our ability to enforce these contractual arrangements and if the shareholders of VIE were to reduce their interest in us, their interests may diverge from ours and that may potentially increase the risk that they would seek to act contrary to the contractual terms.

Our ability to control the VIE also depends on the power of attorney and OptAim Beijing has to vote on all matters requiring shareholder approval in the VIE. As noted above, we believe this power of attorney is legally enforceable but may not be as effective as direct equity ownership.

#### ***Fair Value Determination Related to the Accounting for Business Combinations***

We completed business combinations during 2015, 2018 and 2019 which require us to perform purchase price allocations. In order to recognize the fair value of assets acquired and liabilities assumed, mainly consisting of intangible assets and goodwill, we use valuation techniques such as discounted cash flow analysis under the income approach. Major factors considered include historical financial results and assumptions including future growth rates, terminal rate and an estimate of weighted average cost of capital. Most of the valuations of our acquired businesses have been performed by independent valuation specialists under our management's supervision. We believe that the estimated fair value assigned to the assets acquired and liabilities assumed are based on reasonable assumptions and estimates that market participants would use. However, such assumptions are inherently uncertain and actual results could differ from those estimates.

#### ***Impairment of Goodwill***

Impairment of goodwill assessment is performed on at least an annual basis on December 31 or whenever events or changes in circumstances indicate that the carrying value of the asset may not be recoverable. According to ASC 350-20-35, an entity may assess qualitative factors to determine whether it is more likely than not (that is, a likelihood of more than 50 percent) that the fair value of a reporting unit is less than its carrying amount, including goodwill. We, however, select to proceed directly to perform a two-step goodwill impairment test. The first step compares the fair value of a reporting unit to its carrying amount, including goodwill. If the fair value of a reporting unit exceeds its carrying amount, goodwill is not considered impaired and the second step will not be required. If the carrying amount of a reporting unit exceeds its fair value, the second step compares the implied fair value of the affected reporting unit's goodwill to the carrying value of that goodwill. The implied fair value of

goodwill is determined in a manner similar to accounting for a business combination with the allocation of the assessed fair value determined in the first step to the assets and liabilities of the reporting unit. The excess of the fair value of the reporting unit over the amounts assigned to the assets and liabilities is the implied fair value of goodwill. This allocation process is only performed for purposes of evaluating goodwill impairment and does not result in adjusting the value of any assets or liabilities. An impairment loss is recognized for any excess in the carrying value of goodwill over the implied fair value of goodwill. Application of a goodwill impairment test requires significant management judgment, including the identification of reporting units, assigning assets, liabilities and goodwill to reporting units, and determining the fair value of each reporting unit. The judgment in estimating the fair value of each reporting unit includes estimating future cash flows, determining appropriate discount rates, control premium, comparable companies' multipliers and making other assumptions. Changes in these estimates and assumptions could materially affect the determination of fair value for each reporting unit.

### Revenue Recognition

On January 1, 2018, we adopted ASU 2014-09 "Revenue from Contracts with Customers (Topic 606)" and subsequent amendments to the initial guidance or implementation guidance issued between August 2015 and December 2016 within ASU 2015-14, ASU 2016-08, ASU 2016-10, ASU 2016-12 and ASU 2016-20 (collectively, "ASC 606") using a modified retrospective approach applied to contracts that were not completed as of January 1, 2018. The adoption did not have a material impact on the accumulated deficit as of January 1, 2018. Results for reporting periods beginning on or after January 1, 2018 are presented under ASC 606, while prior period amounts are not adjusted and continue to be reported in accordance with our historic accounting under ASC 605.

Our services are the provision of online marketing services. We utilize a combination of pricing models and revenue is recognized when the related services are delivered based on the specific terms of the contract, which are commonly based on (i) agreed incentive to be earned for being a sales agent of a publisher, (ii) cost-plus or (iii) specified actions (i.e. cost per impression ("CPM"), cost per click ("CPC"), cost per action ("CPA"), cost per sale ("CPS"), cost per lead ("CPL") or return on investment ("ROI")) and related campaign budgets, depending on the customers' preferences and their campaigns launched.

The following table presents our revenue recognized from contracts with customers disaggregated by the four types of pricing models:

	For the years ended		
	December 31, 2017 Under ASC 605	December 31, 2018 Under ASC 606	December 31, 2019 Under ASC 606
Recognized over time			
- Sales agent	8,311	8,671	6,563
- Cost-plus	10,788	12,192	17,146
- SaaS products offering	—	—	8,687
	<u>19,099</u>	<u>20,863</u>	<u>32,396</u>
Recognized at point in time			
- Specified actions	106,159	139,154	165,263
- SaaS products offering	—	—	1,749
	<u>106,159</u>	<u>139,154</u>	<u>167,012</u>
Total	<u>125,258</u>	<u>160,017</u>	<u>199,408</u>

As noted above, in accordance with the modified retrospective method upon adoption of ASC 606, prior period amounts have not been adjusted.

We recognize revenue when we satisfy a performance obligation by transferring a promised service to a customer. We consider the following when determining if a contract exists under which the performance obligations have been satisfied: (i) contract approval by all parties, (ii) identification of each party's rights regarding the goods or services to be transferred, (iii) specified payment terms, (iv) commercial substance of the contract, and (v) collectability of substantially all of the consideration is probable. Collectability is assessed based on a number of factors, including the creditworthiness of a customer, the size and nature of a customer's business and transaction history.

Revenues are recorded net of value-added taxes.

### *Sales agent*

In the arrangement with a particular publisher, we act as a sales agent for this publisher in selling marketing spaces to marketing clients. In return, we earn incentives from this publisher based on contractually stipulated amounts when certain spending thresholds are achieved. We consider this particular publisher as a customer and record such incentives as net revenues. Incentives from this publisher are calculated on both a quarterly and an annual basis in accordance with the terms as set out in the arrangement.

Revenue under this arrangement is recognized over-time given we consider this particular publisher simultaneously receives and consumes the benefits provided by our performance as we perform. In other words, when we purchase marketing spaces on behalf of the marketing clients throughout the marketing campaigns as requested by them, this particular publisher simultaneously receives and consumes the benefit of the marketing spaces being purchased and therefore we are entitled to incentive payment from this publisher.

We grant rebates to marketing clients under the sales agent arrangement. The majority of marketing clients under this arrangement are not customers under either the cost-plus arrangement or specified actions arrangement. We record rebates granted to such marketing clients as reduction of revenue.

### *Cost-plus*

For cost-plus advertisement campaigns, sales are recognized at the fair value of the amount received. Discounts granted to marketing clients under cost-plus marketing campaigns are recorded as a reduction of revenue. The determination of whether revenue should be reported on a gross or net basis is based on an assessment of whether we are acting as the principal or an agent in the transactions. In the normal course of business, we act as an intermediary in executing transactions between website publishers and marketing clients. The specified service in the cost-plus arrangement is the provision of marketing space, which is controlled by the website publishers, rather than us. We assist the marketing clients to place orders with specific website publishers based on specification set out to the marketing clients. We do not have the ability to direct the use of marketing space and do not have any inventory risk. Pricing is generally based on the actual advertising spending incurred by the marketing clients plus a margin. Accordingly, we conclude that we are not the principal in these arrangements and reports revenue earned and costs incurred related to these transactions on a net basis.

Revenue under this arrangement is recognized over-time as we consider our customers simultaneously receive and consume the benefits provided by our performance. At the time we purchase marketing spaces during the contract term for our customers, the customers' advertisements could be placed throughout the marketing campaign. Revenue recognition under this arrangement is not based on an occurrence of significant act or milestone method.

Throughout the various services delivered to clients under the cost-plus arrangements, we earn rebates from publishers and grant rebates to marketing clients. The rebates that we grant to marketing clients under cost-plus arrangement are recorded as reduction of revenue and are recorded based on the amount the marketing clients would ultimately need to spend to earn the corresponding level of rebates. We are also able to reasonably estimate the spending the customers can ultimately achieve based on the historical spending patterns of the customers with similar arrangements. The rebates that we receive from publishers under the cost-plus arrangements are recorded as revenue. These rebates are recognized when a particular milestone is achieved (i.e. applying the relevant rebates based on the level of spending threshold actually achieved) and spending has actually occurred.

### *Specified actions*

We also generate revenue from performing specified actions (i.e., a CPM, CPC, CPA, CPS, CPL or ROI basis). Revenue is recognized on a CPM or CPC basis as impressions or clicks are delivered while revenue on a CPA, CPS, CPL or ROI basis is recognized once agreed actions are performed. For the specified actions advertisement campaigns, we are the principal as we have the obligation to deliver successful actions requested by marketing clients. Also, we will only be paid if successful actions can be delivered and is exposed to risk of loss. In terms of pricing, we have complete latitude in establishing the selling prices of each of the CPM, CPC, CPA, CPS, CPL or ROI pricing model. Our margin may vary as the costs incurred to deliver successful actions may vary and we are therefore exposed to risk of loss whereby validating our degree of responsibility to our customers. Although the inventory risk under specified actions arrangement is considered to be low, we conclude that we are the principal in such arrangement as we are the principal ultimately responsible for delivering successful actions and in charge of establishing the price per action. Accordingly, we report revenue earned and costs incurred related to these transactions on a

gross basis.

Revenues under this arrangement is recognized at point-in-time when we are able to deliver the specified actions as requested by the customers. Upon the occurrence of the specified actions, the customers take control of the specified actions and this is when we recognize the corresponding revenue. Unlike the cost-plus arrangement, when we purchase marketing spaces in order to deliver the specified actions, the customers do not receive and consume the benefit as the benefit to be received by the customers is the occurrence of the specified actions. Also, we do not create or enhance an asset that the customers control as the marketing spaces ultimately belong to the publishers. We do not have any right to payment for simply purchasing the marketing spaces and would only be compensated upon delivery of the specified actions.

Similar to the cost-plus arrangements, we earn rebates from publishers and grant rebates to marketing clients under specified action arrangement. Likewise, the rebates that we grant to marketing clients under specified action arrangement are recorded as reduction of revenue and are recorded based on the amount the marketing clients would ultimately need to spend to earn the corresponding level of rebates based on the historical spending patterns of the customers with similar arrangements. The rebates that we receive from publishers under the specified action arrangements are recorded as a reduction of cost of revenues. Similar to the cost-plus arrangement, these rebates under specified action arrangements are recognized when a particular milestone is achieved (i.e. applying the relevant rebates based on the level of spending threshold actually achieved) and spending has actually occurred.

#### *SaaS products offering*

Under this arrangement, we offer SaaS products which are cloud-hosted software offering enterprise solutions to customers through provision of software licenses and retail and CRM. Revenues under this arrangement primarily consist of fees for (i) licensing to provide customers with access to one or more of the existing cloud applications for e-commerce, marketing and customer management, (ii) the development of new cloud applications customized for individual customer, and (iii) various combinations of technical support and maintenance services provided by us. Contracts with customers under this arrangement are generally with a term of 1 to 24 months.

Revenues from licensing of existing cloud applications are generally recognized ratably over time over the contract term beginning on the date that the licensing service is made available to the customer, whereby we consider that our customers simultaneously receive and consume the benefits provided by the use of existing cloud applications. We do not have other right to consideration in exchange for goods or service that we have transferred to a customer when that right is conditioned on something other than the passage of time.

Revenues of developing new cloud applications exclusively customized for customers are recognized at point-in-time when we are able to deliver the cloud applications to customers. We consider the transfer of control of new cloud applications to customer, which represents a distinct performance obligation, to be completed when such cloud applications are on-premise and fully functional such that the customer can use and benefit from the cloud applications on its own.

Besides, we also provide certain additional maintenance services along with the above arrangements of cloud application development and licensing, such as technical support and bug fixes. These additional maintenance services are considered to be a series of distinct services that are substantially the same and have the same duration and measure of progress; therefore, we conclude that they represent a separate combined performance obligation. Revenues from such additional maintenance services are recognized ratably over-time over the contract period.

The respective stand-alone selling prices of each of the three performance obligations are determined based upon observable prices in stand-alone transactions and contractually stated price whereby no allocation of selling prices among individual performance obligations are required.

Cost of revenues for SaaS products primarily comprises amortization expenses related to our computer software and systems, salaries and benefits of relevant operations and support personnel, depreciation of relevant property and equipment depreciation and other direct services costs.

### *Contract balances*

Timing of revenue recognition may differ from the timing of invoicing to customers. Accounts receivable represents amounts invoiced and revenue recognized prior to invoicing when we have satisfied our performance obligations and have the unconditional right to payment. The allowance for doubtful accounts is estimated based upon our assessment of various factors, including historical experience, the age of the accounts receivable balances, current economic conditions and other factors that may affect our customers' ability to pay. We normally do not have contract assets, which are primarily unbilled accounts receivable that are conditional on something other than the passage of time.

Deferred revenue represents contract liabilities which related to unsatisfied performance obligations at the end of the period.

Due to the generally short-term duration of the contracts, the majority of the performance obligations are satisfied in the following reporting period. Revenue recognized during the year ended December 31, 2019 relating to deferred revenue as of January 1, 2019 was US\$15.8 million.

Revenue recognized in the current period from performance obligations related to prior periods was not material.

### *Practical Expedients*

We have used the following practical expedients as allowed under ASC 606:

- (i) The transaction price allocated to the performance obligations that are unsatisfied, or partially unsatisfied, has not been disclosed as substantially all of our contracts have a duration of one year or less.
- (ii) Payment terms and conditions vary by contract type, although terms generally include a requirement of prepayment or payment within one year or less. In instances where the timing of revenue recognition differs from the timing of invoicing, we have determined that our contracts generally do not include a significant financing component.
- (iii) We generally expense sales commissions when incurred because the amortization period would be one year or less. These costs are recorded within sales and marketing expenses.

### **Rebates**

Throughout the various services delivered to our clients under the cost-plus and specified action arrangements, we earn rebates from our publishers and grant rebates to clients. The rebates we grant to clients under cost-plus/specified actions arrangement are recorded as reduction of revenue and are recorded based on the amount the marketing clients would ultimately need to spend to earn the corresponding level of rebates. We are also able to reasonably estimate the spending our customers can ultimately achieve based on the historical spending patterns of our customers with similar arrangements. The rebates we receive from our publishers under the specified action arrangements are recorded as reduction of cost of revenue, while under the cost-plus arrangements, they are recorded as revenue. These rebates are recognized when a particular milestone is achieved (i.e. applying the relevant rebates based on the level of spending threshold actually achieved) and spending has actually occurred. Furthermore, no rebates have been received from the publisher under the sales agent arrangements.

We grant rebates to our clients under sales agent arrangement. The majority of the clients under our sales agent arrangement are not our clients under either the cost-plus arrangement or specified action arrangement. We record rebates granted to clients under the sales agent arrangement as reduction of revenue.

### **Valuation of Ordinary Shares, Preferred Shares, Share Options and Warrants**

#### *Fair Value of Preferred Shares*

Prior to our initial public offering in December 2017, we were a private company with no quoted market prices for our ordinary shares. We therefore needed to make estimates of the fair value at various dates. In determining fair value of our preferred shares, we, with the assistance of independent appraisers, adopted a two-step method as follows:

Step 1: to derive the fair value of total equity by adopting the discounted cash flow ("DCF") Method;

Step 2: based on the total equity value derived in step 1, to derive the fair value of each class of shares by adopting equity allocation method.

*Significant Factors, Assumptions, and Methodologies Used in Determining Fair Value of Total Equity*

We, with the assistance of an independent appraiser, mainly performed retrospective valuations instead of contemporaneous valuations because, at the time of valuation, our financial resources and limited human resources were principally focused on business development efforts. This approach is consistent with the guidance prescribed by the AICPA Audit and Accounting Practice Aid, Valuation of Privately-Held-Company Equity Securities Issued as Compensation, or the Practice Aid. We, with the assistance of an independent appraiser, evaluated the use of three generally accepted valuation approaches: market, cost and income approaches to estimate our enterprise value. We and our appraisers considered the market and cost approaches as inappropriate for valuing our total equity because no exactly comparable market transaction could be found for the market valuation approach, and the cost approach does not directly incorporate information about the economic benefits contributed by our business operations. Consequently, we and our appraisers relied solely on the income approach in determining the fair value of our total equity and we adopted market approach in verifying the fair value. This method eliminates the discrepancy in the time value of money by using a discount rate to reflect all business risks including intrinsic and extrinsic uncertainties in relation to our company.

The income approach involves applying discounted cash flow analysis based on our projected cash flows using management's best estimate as of the valuation dates. Estimating future cash flow requires us to analyze projected revenue growth, gross profit margins, operating expense levels, effective tax rates, capital expenditures, working capital requirements, and discount rates. Our projected revenues were based on expected annual growth rates derived from a combination of our historical experience and the general trend in our industry. The revenue and cost assumptions we used are consistent with our long-term business plan and market conditions in our industry. We also have to make complex and subjective judgments regarding our unique business risks, our limited operating history, and future prospects at the time of valuation.

The table below sets forth the fair value of total equity as of March 31, 2017, June 30, 2017 and September 30, 2017, respectively:

	<u>US\$ in millions</u>
March 31, 2017	514
June 30, 2017	566
September 30, 2017	521

The other major assumptions used in calculating the fair value of total equity include:

*Weighted average cost of capital, or WACC.* Our cash flows were discounted to present value using discount rates that reflect the risks the management perceived as being associated with achieving the forecasts and are based on the estimate of our weighted average cost of capital, or WACC, on the issuance date. The WACCs were determined considering the risk-free rate, industry-average correlated relative volatility coefficient, or beta, equity risk premium, country risk premium, size of our company, scale of our business and our ability in achieving forecast projections. We used WACCs of 18.0%, 17.8% and 18.2% for March 31, 2017, June 30, 2017 and September 30, 2017, respectively.

*Comparable companies.* In deriving the WACCs, which are used as the discount rates under the income approach, four publicly traded companies in the U.S. were selected for reference as our guideline companies.

*Discount for lack of marketability, or DLOM.* At the time of each issuance, we were a closely-held company and there was no public market for our equity securities. To determine the discount for lack of marketability, we and the independent appraisers used the Black-Scholes put option model. A put option was used because it incorporates certain company-specific factors, including timing of the expected initial public offering and the volatility of the share price of the guideline companies. Based on the analysis, we used DLOM of 9.6%, 5.7% and 3.9% for March 31, 2017, June 30, 2017 and September 30, 2017, respectively.

### Significant Factors Contributing to the Difference in Fair Value Determined of Total Equity

The determined fair value of total equity was US\$513.5 million as of March 31, 2017 and increased to US\$566.2 million as of June 30, 2017, and decreased to US\$520.8 million as of September 30, 2017. We believe the change in the fair value of our total equity was primarily attributable to the following factors:

The increase of equity value from March 2017 to June 2017 was attributed to the decrease in lack of marketability discount as a result of the closer timing of the expected initial public offering. The decrease from June 2017 was as a result of the increase in WACC and update on financial projections as of September 30, 2017 to align with our actual performance up to the Valuation Date.

### Significant Factors, Assumptions, and Methodologies Used in Determining Fair Value of Preferred Shares

Based on the total equity value as determined by step 1, we, with the assistance of independent appraisers, adopted the Equity Allocation Model, which was referenced to the "Practice Aid Valuation of Privately Held Company Equity Securities Issued as Compensation" issued by the AICPA in 2013, to allocate the equity value of the Company to different class of shares.

We have six classes of shares ordinary shares, series A preferred shares, series B preferred shares, series C preferred shares, series D preferred shares and series E preferred shares. Under such capital structure, different classes of shareholders have economic or control rights disproportionate to their ownership percentage. As such, the fair value of total equity value is allocated to different classes of shareholders regarding to the economic and control rights associated.

As mentioned in our amended and restated memorandum and articles of association, total equity value will be allocated to different classes of shareholders under three different scenarios, namely liquidation scenario, redemption scenario and conversion scenario (i.e. the IPO scenario).

Under the liquidation scenario and redemption scenario, we applied the Black-Scholes put option model to allocate the total equity value to these four classes of shares while total equity value is allocated on as-if-fully converted basis under the conversion scenario.

The key assumptions used in the equity allocation model with contingent claim to allocate the total equity value under the liquidation scenario and redemption scenario include:

- *Current equity value.* Current equity value is determined as the total equity value derived by step 1;
- *Life to expiration.* Life to expiration is determined based on the remaining contractual life of each class of preferred shares;
- *Risk-free interest rate.* Risk free interest rate is determined based on the yield of U.S. Treasury Strips with a maturity life equal to the expected life to expiration; and
- *Volatility.* volatility is determined based on our comparable companies.

After deriving the values of preferred and ordinary shares under each of the liquidation scenario, redemption scenario and conversion scenario, we then assigned the probabilities of each scenario to arrive at the probability weighted value of each class of shares. The table below sets forth the probability of the three scenarios used in calculating the fair value of the preferred shares as of March 31, 2017, June 30, 2017 and September 30, 2017, respectively:

	<u>Liquidation Scenario</u>	<u>Redemption Scenario</u>	<u>Conversion Scenario</u>
March 31, 2017	5.0%	5.0%	90.0%
June 30, 2017	5.0%	5.0%	90.0%
September 30, 2017	5.0%	5.0%	90.0%

The table below sets forth the fair value of ordinary shares and preferred shares as of March 31, 2017, June 30, 2017 and September 30, 2017, respectively.

	Preferred Shares					Ordinary Shares
	Series - A	Series - B	Series - C	Series - D	Series - E	
	(US\$ in millions)					
March 31, 2017	49	37	32	54	23	327
June 30, 2017	54	41	35	58	25	361
September 30, 2017	49	38	32	54	23	333

We grant share options and restricted share units (“RSUs”) to eligible employees and account for these share-based awards in accordance with ASC 718 Compensation Stock Compensation. Effective January 1, 2019, we adopted ASU No. 2018-07, Compensation—Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting (“ASU 2018-07”), which expands the scope of Topic 718 to include share-based payment awards to nonemployees. As a result, share-based awards granted to consultants and non-employees are accounted for in the same manner as awards granted to employees as described above. The impact of adoption of this new guidance did not have a material impact on our consolidated financial statements. Prior to the adoption of ASU 2018-07, for share-based awards granted to non-employees, we accounted for the related share-based compensation expenses in accordance with ASC subtopic, 505-50 (“ASC 505-50”), “Equity-Based Payments to Non-Employees.” Under the provision of ASC 505-50, these options, RSUs and warrants are measured as of the earlier of the date at which either: (1) commitment for performance by the non-employee has been reached; or (2) the non-employee’s performance is complete.

Share-based awards are measured at the grant date fair value of the awards and recognized as expenses using graded vesting method, net of estimated forfeitures, over the requisite service period, which is the vesting period. Compensation cost is accrued if it is probable that a performance condition will be achieved. We estimate the forfeiture rate based on historical forfeitures of equity awards and adjust the rate to reflect changes in facts and circumstances, if any. We revise our estimated forfeiture rate if actual forfeitures differ from our initial estimates. Grant date fair values of share options and warrants are calculated using the binomial option pricing model with the assistance from an independent appraiser. The binomial option pricing model is used to measure the value of the awards. The determination of the fair value is affected by the share price as well as assumptions regarding a number of complex and subjective variables, including the expected volatility, risk-free interest rates, exercise multiple, expected dividend yield and expected term.

The binomial option pricing model is used to determine the fair value of the share options and warrants granted to employees and non-employees. The fair values of share options granted/ modified during the years ended December 31, 2017, 2018 and 2019 were estimated using the following assumptions:

Granted during the years ended December 31, 2017 and 2019	Risk-free interest rate(1)	Dividend yield(2)	Volatility rate(3)	Expected term (in years)(4)
January 1, 2017	2.67%	0%	50.75%	NA
April 1, 2017	2.59%	0%	50.79%	NA
July 1, 2017	2.35%	0%	47.59%	NA
December 9, 2019(7)	1.60%	0%	42.11%	3.00
Modified during the year ended December 31, 2018:				
September 1, 2018(5)	2.83%	0%	42.72%	NA
September 1, 2018(6)	2.92%	0%	44.65%	NA

- (1) The risk-free interest rate of periods within the contractual life of the share option is based on the yield of US Treasury Strips sourced from Bloomberg as of the valuation dates.
- (2) The Company has no history or expectation of paying dividends on its ordinary shares.
- (3) Expected volatility is estimated based on the average of historical volatilities of the comparable companies in the same industry as at the valuation dates.
- (4) The time to expire is assumed to be the option’s contractual term while early exercise multiples, being 2.2x and 2.8x for general staff and management staff, respectively, and post-vesting employment termination behavior have been factored into the model to derive the fair values of the share options.
- (5) It refers to the modification of options previously granted on January 1, 2015.

- (6) It refers to the modification of options previously granted on January 1, 2017.  
(7) It refers to the issue of warrants to a non-employee on December 9, 2019.

#### *Fair Value of Convertible Notes*

##### *Convertible notes issued in 2018*

On September 12, 2018, we issued US\$30.0 million of zero-coupon convertible notes (“2018 Notes”) at par. The convertible notes will mature on September 12, 2023 and are non-interest bearing, unless the convertible notes are redeemed or repaid upon the occurrence of events of default or relevant events as defined in the agreement whereby an interest of 5% per annum would be charged.

For both the convertible debt and conversion option which are recognized as financial liabilities, we have elected the fair value option under ASC 825-10 to measure the entire instrument at fair value with realized or unrealized gains and losses recorded in the consolidated statements of comprehensive loss. Also, ASC 825-10-25-11 requires financial instrument that is legally a single contract not to be separated into parts for purposes of applying the fair value option.

The fair value of the 2018 Notes was determined using a Monte Carlo simulation with the key assumptions summarized in the below table. The volatility was based on the implied historical volatility of certain comparable companies. The risk-free interest rate is equal to the yield, as of the measurement date, of the zero-coupon U.S. Treasury bill that commensurates with the remaining period until the maturity of the 2018 Notes.

<b>Measurement date</b>	<b>Volatility %</b>	<b>Risk-free rate %</b>
December 31, 2018	44.32	2.52
February 1, 2019	44.59	2.55
March 1, 2019	44.99	2.62
August 22, 2019	43.86	1.47
November 14, 2019	44.34	1.61
December 12, 2019	43.86	1.71
December 31, 2019	44.17	1.67

##### *Convertible notes issued in 2019*

On November 11, 2019 and December 16, 2019, we issued 5% coupon convertible notes of US\$ 20,000 (the “November 2019 Notes”) and US\$10,000 (the “December 2019 Notes”) (collectively, the “2019 Notes”), respectively, at par. The November 2019 Notes and the December 2019 Notes mature on November 11, 2022 and December 16, 2022, respectively.

For both the convertible debt and conversion option which are recognized as financial liabilities, we have elected the fair value option under ASC 825-10 to measure the entire instrument at fair value with realized or unrealized gains and losses recorded in the consolidated statements of comprehensive loss. Also, ASC 825-10-25-11 requires financial instrument that is legally a single contract not to be separated into parts for purposes of applying the fair value option.

The fair values of the 2019 Notes as of December 31, 2019 were determined using a binomial model with the key assumptions summarized in the below table. The volatility was based on the implied historical volatility of certain comparable companies. The risk-free interest rate is equal to the yield, as of the respective measurement dates, of a 5% coupon U.S. Treasury bill that is commensurate with the remaining period until the maturity of the 2019 Notes. The bond yield was based on the yield of corporate bonds with comparable ratings.

	<b>Volatility %</b>	<b>Risk-free rate %</b>	<b>Bond yield %</b>
November 2019 Notes	42.53	1.61	10.09
December 2019 Notes	42.63	1.61	10.09

## Gross Billing

We regularly review a number of financial and operating metrics, including those set forth below, to help us evaluate our business, measure our performance, identify trends affecting our business, establish budgets, measure the effectiveness of sales and marketing, and assess our operational efficiencies.

	Year Ended December 31,					
	2017		2018		2019	
	(US\$ in thousands)	(% of gross billing <sup>(1)</sup> )	(US\$ in thousands)	(% of gross billing <sup>(1)</sup> )	(US\$ in thousands)	(% of gross billing <sup>(1)</sup> )
<b>Operating metrics:</b>						
Gross billing	248,279	100	399,749	100	640,767	100
Gross billing from mobile marketing solutions	172,194	69.4	328,702	82.2	565,634	88.3
Gross billing from other marketing solutions	76,085	30.6	71,047	17.8	64,697	10.1
Gross billing from enterprise solutions	—	—	—	—	10,436	1.6

(1) With respect to net revenues from mobile marketing solutions, net revenues from other marketing solutions and net revenues from enterprise solutions, % of gross billing refers to the % of gross billing for mobile marketing solutions, % of gross billing for other marketing solutions, and % of gross billing for enterprise solutions, as the case may be.

Gross billing is an important operating measure by which we evaluate and manage our business. We define gross billing as the aggregate dollar amount that our clients pay us, after deducting rebates paid and discounts given to clients.

We use gross billing to assess our business growth, market share and scale of operations, and our ability to generate gross billing is strongly correlated to our ability to generate net revenues. As we have defined gross billing for internal uses, it may not be comparable to similarly titled measures used by other companies in the industry which present the impact of media costs differently.

Gross billing derived from our sales agency arrangement was US\$37.8 million, US\$39.9 million and US\$35.2 million in 2017, 2018 and 2019, respectively, none of which was recognized as net revenues for the respective periods.

Gross billing derived from our cost-plus marketing campaigns was US\$104.3 million, US\$220.7 million and US\$430.0 million in 2017, 2018 and 2019, respectively, out of which US\$10.8 million, US\$12.2 million and US\$17.1 million was recognized as net revenues for the respective periods.

Gross billing derived from our specified action marketing campaigns was US\$106.2 million, US\$139.2 million and US\$165.3 million in 2017, 2018 and 2019, respectively, all of which was recognized as net revenues for the respective periods.

Gross billing derived from our enterprise solutions was US\$10.4 million in 2019, all of which was recognized as net revenues.

Gross billing from our mobile marketing solutions increased, both in absolute amount and as a percentage of total gross billing, from 2017 to 2018 and further to 2019 as we prioritized the execution of our mobile strategy to capture a larger share of online marketing spend on mobile apps, and as our clients were generating larger mobile marketing spend. Gross billing from our other marketing solutions decreased from 2017 to 2018 and further to 2019 as we optimized the client base for other marketing solutions to focus on profitability and liquidity, and continued shift in our strategic focus to mobile marketing solutions and enterprise solutions. For example, we terminated relationship with certain clients for our other marketing solutions, as they had relatively long account receivable cycles and yielded relatively low operating profit margins. Some of these clients were large marketers and had individually accounted for more than 5% of our annual gross billing historically.

Our gross billing per client increased by US\$127,422, or 83.7%, from US\$152,318 in 2017 to US\$279,740 in 2018 and further increased by US\$44,699, or 16.0%, to US\$324,439 in 2019, while the total number of our clients decreased by 12.3% from 1,630 in 2017 to 1,429 in 2018 due to our efforts in optimizing our client base. The total number of our clients increased by 38.2% from 1,429 in 2018 to 1,975 in 2019, primarily attributable to our increased ability to cater to the growing market demand.

## Results of Operations

The following table sets forth a summary of our consolidated results of operations for the periods indicated. This information should be read together with our consolidated financial statements and related notes included elsewhere in this annual report. The operating results in any period are not necessarily indicative of the results that may be expected for any future period and the period-to-period comparisons discussed below may not be meaningful and are not indicative of our future trends.

	Year Ended December 31,					
	2017		2018		2019	
	(US\$ in thousands)	(% of net revenues)	(US\$ in thousands)	(% of net revenues)	(US\$ in thousands)	(% of net revenues)
Net revenues	125,258	100.0	160,017	100.0	199,408	100.0
Cost of revenues	(95,733)	(76.4)	(120,897)	(75.6)	(142,703)	(71.6)
Gross profit	29,525	23.6	39,120	24.4	56,705	28.4
Operating expenses						
Research and development expenses	(5,778)	(4.6)	(10,737)	(6.7)	(5,574)	(2.8)
Sales and marketing expenses	(25,935)	(20.7)	(32,080)	(20.0)	(42,968)	(21.5)
General and administrative expenses	(12,983)	(10.4)	(23,757)	(14.9)	(20,304)	(10.2)
Total operating expenses	(44,696)	(35.7)	(66,574)	(41.6)	(68,846)	(34.5)
Operating loss	(15,171)	(12.1)	(27,454)	(17.2)	(12,141)	(6.1)
Interest income	—	—	421	0.3	537	0.3
Interest expense	(551)	(0.4)	(773)	(0.5)	(1,915)	(1.0)
Other gains, net	1,841	1.4	687	0.4	2,992	1.5
Fair value (losses)/ gains on convertible notes	—	—	(4,837)	(3.0)	133	0.1
Fair value losses on derivative liabilities	(10,190)	(8.1)	—	—	—	—
Loss before income tax expense	(24,071)	(19.2)	(31,956)	(20.0)	(10,394)	(5.2)
Share of losses from an equity investee	—	—	—	—	(408)	(0.2)
Income tax expense	(548)	(0.5)	(655)	(0.4)	(47)	(0.0)
Net loss	(24,619)	(19.7)	(32,611)	(20.4)	(10,849)	(5.4)

## Key Components of Results of Operations

### Net Revenues

We generate revenue primarily from clients' marketing spend through our platform as they utilize our solutions in cost-plus and specified action marketing campaigns, and to a less extent from incentives granted by the publishers under our sales agency arrangement. We derive revenue from four sources and report them on either the net or gross basis: (i) revenue from incentives earned from the website publishers for which we act as sales agent for its content distribution opportunities, or the sales agency arrangement, which is reported on a net basis, (ii) revenue from performing cost-plus marketing campaigns, which is reported on a net basis, (iii) revenue from performing specified actions marketing campaigns (i.e., a CPM, CPC, CPA, CPS, CPL or ROI basis), which is reported on a gross basis; and (iv) revenue from SaaS products offering under our enterprise solutions business, which is reported on a gross basis and a net basis.

We record incentives from the publishers under the sales agency arrangement as net revenues. We consider the publishers to be our customers under the sales agency arrangement. The amount of such incentives is determined based on a variety of factors, including yearly market spending at the publishers' platforms. Under our sales agency arrangement, we do not receive any rebate from the publishers. Net revenues from our sales agency arrangement, which equal the incentives received from the publishers under the sales agency arrangement were US\$8.3 million, US\$8.7 million and US\$6.6 million in 2017, 2018 and 2019, respectively.

We record service fees, net of media costs and rebates and discounts to clients for cost-plus marketing campaigns, as net revenues. We consider these clients to be our customers for cost-plus marketing campaigns. Service fees are generally calculated as a percentage of media cost. Such percentage is negotiated on a client-by-client, and campaign-by-campaign basis. Rebates received from the publishers for cost-plus marketing campaigns are recorded as net revenues. Net revenues from our cost-plus marketing campaigns were US\$10.8 million, US\$12.2 million and US\$17.1 million in 2017, 2018 and 2019, respectively.

We record the aggregate gross dollar amount that our clients spend through our platform for specified action marketing campaigns, which includes media cost, as net revenues. We consider these clients to be our customers for specified action marketing campaigns. We charge our clients for specified actions, such as when a user clicks on their marketing messages, or a CPC pricing model, or when their marketing messages are displayed, or a CPM pricing model. Rebates received from publishers for specified action marketing campaigns are recorded as deduction of cost of revenues. Net revenues from our specified action marketing campaigns were US\$106.2 million, US\$139.2 million and US\$165.3 million in 2017, 2018 and 2019, respectively.

We grant rebates and discounts to marketers and marketing agencies to incentivize and encourage them to use our solutions. These rebates and discounts are calculated based on certain factors, including yearly market spending of the marketers and marketing agencies that we reasonably estimate that they are able to achieve based on the historical spending patterns of similar clients on our platform. The rebates and discounts we grant are settled when the relevant account receivables from the marketers and marketing agencies are settled, and the timing of settlement is independent of the settlement of the rebates or incentives, as the case may be, from the publishers, which is generally three to six months after the end of the relevant period to which such rebates or incentives, as the case may be, relate. Rebates we grant under our sales agency arrangement were recorded as cost of revenues before January 1, 2018 as we consider these rebates were identifiable and separable from the incentive revenue generated from the publisher under ASC 605, and after January 1, 2018, as reduction of revenue, as we adopted ASC 606 "Revenue from Contracts with Customers" using the modified retrospective method. In all other circumstances, rebates and discounts we grant are recorded as reduction of revenue.

Starting from 2019, we also generate revenue from SaaS products which are cloud-hosted software offering enterprise solutions to customers through provision of software licenses and retail and CRM solutions. Revenues under this arrangement primarily consist of fees for (i) licensing to provide customers with access to one or more of the existing cloud applications for e-commerce, marketing and customer management, (ii) the development of new cloud applications customized for individual customer, and (iii) various combinations of technical support and maintenance services provided by us. Net revenues from our SaaS-based enterprise solutions was US\$10.4 million in 2019.

The table below shows our net revenues breakdown for our mobile marketing solutions, other marketing solutions, and enterprise solutions for the periods presented.

	Year Ended December 31,					
	2017		2018		2019	
	(US\$ in thousands)	(% of net revenues)	(US\$ in thousands)	(% of net revenues)	(US\$ in thousands)	(% of net revenues)
Net revenues from mobile marketing solutions	101,426	81.0	140,428	87.8	171,067	85.8
Net revenues from other marketing solutions	23,832	19.0	19,589	12.2	17,905	9.0
Net revenues from enterprise solutions	—	—	—	—	10,436	5.2
Total net revenues	125,258	100.0	160,017	100.0	199,408	100.0

The table below shows our rebates received from publishers under cost-plus marketing campaigns, which were recognized as net revenues for our mobile marketing solutions and other marketing solutions for the periods presented.

	Year Ended December 31,					
	2017		2018		2019	
	(US in thousands)	(% of net revenues)	(US in thousands)	(% of net revenues)	(US in thousands)	(% of net revenues)
Rebates received from publishers	15,130	12.1	36,495	22.8	65,656	32.9
Rebates received from publishers for mobile marketing solutions	12,989	10.4	33,243	20.8	62,003	31.1
Rebates received from publishers for other marketing solutions <sup>(1)</sup>	2,141	1.7	3,252	2.0	3,653	1.8

(1) Of which US\$553 thousand, US\$74 thousand and US\$31 thousand in 2017, 2018 and 2019, respectively, were received under cost-plus marketing campaigns from the publisher for which we acted as its sales agent under our sales agency arrangement.

The table below shows our incentive revenues received from the publisher under our sales agency arrangement, which were recognized as net revenues for our mobile marketing solutions and other marketing solutions for the periods presented.

	Year Ended December 31,					
	2017		2018		2019	
	(US in thousands)	(% of net revenues)	(US in thousands)	(% of net revenues)	(US in thousands)	(% of net revenues)
Incentive revenues received from the publishers	8,311	6.6	11,325	7.1	8,707	4.4
Incentive revenues received from the publishers for our mobile marketing solutions	—	—	—	—	—	—
Incentive revenues received from the publishers for our other marketing solutions <sup>(1)</sup>	8,311	6.6	11,325	7.1	8,707	4.4

(1) Exclude rebates in the amount of US\$553 thousand, US\$74 thousand and US\$31 thousand in 2017, 2018 and 2019, respectively, received under cost-plus marketing campaigns from the publisher for which we acted as its sales agent under our sales agency arrangement.

The table below shows the rebates and discounts we granted to marketers and marketing agencies under our cost-plus and specified action marketing campaigns for our mobile marketing solutions and other marketing solutions, which were recognized as reduction of revenue for the periods presented.

	Year Ended December 31,					
	2017		2018		2019	
	(US in thousands)	(% of net revenues)	(US in thousands)	(% of net revenues)	(US in thousands)	(% of net revenues)
Rebates and discounts we granted	(24,321)	(19.4)	(46,496)	(29.1)	(72,395)	(36.3)
Rebates and discounts we granted for mobile marketing solutions <sup>(1)</sup>	(22,427)	(17.9)	(43,943)	(27.5)	(69,820)	(35.0)
Rebates and discounts we granted for other marketing solutions <sup>(2)</sup>	(1,894)	(1.5)	(2,553)	(1.6)	(2,575)	(1.3)

(1) Of which US\$(12,981) thousand, US\$(15,514) thousand and US\$(59,456) thousand were in connection with our specified action (i.e., gross) marketing campaigns, and US\$(9,446) thousand, US\$(28,429) thousand and US\$(10,363) thousand were in connection with our cost-plus (i.e., net) marketing campaigns in 2017, 2018 and 2019, respectively.

(2) Of which US\$(783) thousand, US\$(371) thousand and US\$(75) thousand were in connection with our specified action (i.e., gross) marketing campaigns, and US\$(1,111) thousand, US\$(2,182) thousand and US\$(2,501) thousand were in connection with our cost-plus (i.e., net) marketing campaigns in 2017, 2018 and 2019, respectively.

On January 1, 2018, we adopted ASC 606 “Revenue from Contracts with Customers” using the modified retrospective method. Since the adoption of ASC 606, rebates we grant under our sales agency arrangements are presented net of revenues, as opposed to being included in cost of revenues in prior periods. The table below shows our rebates granted under our sales agency arrangement.

	Year Ended December 31,					
	2017		2018		2019	
	(US in thousands)	(% of net revenues)	(US in thousands)	(% of net revenues)	(US in thousands)	(% of net revenues)
Rebates we granted under the sales agency arrangement						
- Recorded as cost of revenues under ASC 605	(2,236)	(1.8)	N/A	N/A	N/A	N/A
- Recorded as a reduction of revenue under ASC 606	N/A	N/A	(2,654)	(1.7)	(2,146)	(1.1)

We have a diverse client base in terms of the geographic location of our clients’ or marketers’ headquarters as we help them, especially multinational marketers, navigate through the fragmented online marketing landscapes in China to identify and reach their potential audience. In determining the geographic classification of our revenue, we look at the geographic location of our subsidiary or VIE which executed the marketing campaign contract. Our subsidiaries or VIE in China generally are our signing entities for marketing campaign contracts with clients which are based in China. Our Singapore subsidiary generally is our signing entity for marketing campaign contracts with clients based in Southeast Asia. Our Hong Kong subsidiaries generally are our signing entities for the other clients. In 2017, 2018 and 2019, we derived 15.9%, 11.3% and 11.8% of our net revenues from outside China, respectively. Our net revenues from clients in China increased significantly from 2017 to 2018 and further to 2019 as a result of (i) the business expansion in OptAim, which used its consolidated subsidiaries in China to execute marketing campaign contracts, (ii) our continuous priority in the execution of our mobile strategy, and (iii) revenue contribution from Changyi which operates enterprise solutions business in China. Clients for our mobile marketing solutions and enterprise solutions are primarily based in China. Our net revenues from clients outside China decreased from 2017 to 2018 as we optimized the client base for other marketing solutions to focus on profitability and liquidity, and our strategic shift away from other marketing solutions. Our net revenues from clients outside China increased in 2019 as we grasped the growing opportunities in marketing business outside China. The table below shows our net revenues breakdown by geographic region for the periods presented.

	Year Ended December 31,					
	2017		2018		2019	
	(US in thousands)	(% of net revenues)	(US in thousands)	(% of net revenues)	(US in thousands)	(% of net revenues)
PRC	105,380	84.1	141,926	88.7	175,970	88.2
Hong Kong	18,287	14.6	17,004	10.6	22,567	11.3
Others	1,591	1.3	1,087	0.7	871	0.5
Total net revenues	125,258	100	160,017	100	199,408	100

### Cost of Revenues; Gross Profit Margin

#### Marketing Solutions

Cost of revenues for our marketing solutions primarily consists of:

- *Media cost in connection with specified-action marketing campaigns.* Media cost refers to cost we pay to publishers for acquisition of content distribution opportunities, which is partially offset by rebates we receive from publishers in specified-action marketing campaigns. Media cost represented 93.0%, 96.1% and 96.4% of our cost of revenues in 2017, 2018 and 2019, respectively.
- *Rebates we grant under our sales agency arrangement (prior to January 1, 2018).* Rebates we grant under our sales agency arrangement were recognized as cost of revenues in 2017, represented 2.3% of our cost of revenues in 2017.

The table below shows the rebates we granted to marketers and marketing agencies under our sales agency arrangement for our mobile marketing solutions and other marketing solutions for the periods presented as recognized in cost of revenues.

	Year Ended December 31,					
	2017		2018		2019	
	(US in thousands)	(% of cost of revenues)	(US in thousands)	(% of cost of revenues)(1)	(US in thousands)	(% of cost of revenues)
Rebates we granted under the sales agency arrangement <sup>(1)</sup>	(2,236)	(2.3)	N/A	N/A	N/A	N/A
Rebates we granted for mobile marketing solutions	—	—	—	—	—	—
Rebates we granted for other marketing solutions <sup>(1)</sup>	(2,236)	(2.3)	N/A	N/A	N/A	N/A

(1) On January 1, 2018, we adopted ASC 606 “Revenue from Contracts with Customers” using the modified retrospective method. Since the adoption of ASC 606, rebates we grant under our sales agency arrangements are presented as net of revenues, as opposed to being included as cost of revenues in prior periods.

The table below shows our rebates received from website publishers under specified action marketing campaigns, which were recognized as deduction of cost of revenues for our mobile marketing solutions and other marketing solutions for the periods presented.

	Year Ended December 31,					
	2017		2018		2019	
	(US in thousands)	(% of net revenues)	(US in thousands)	(% of net revenues)	(US in thousands)	(% of net revenues)
Rebates received from publishers	16,323	13.0	19,298	12.1	16,690	8.4
Rebates received from publishers for mobile marketing solutions	16,279	13.0	19,085	12.0	16,490	8.3
Rebates received from publishers for other marketing solutions	44	0.0	213	0.1	200	0.1

- *Amortization of expenses.* This relates to amortization of computer software acquired in the acquisitions of Buzzinate and OptAim, which represented 4.3%, 3.4% and 3.6% of our cost of revenues in 2017, 2018 and 2019, respectively.

The table below shows the cost of revenues, gross profit and gross profit margin for our mobile marketing solutions for the periods presented. Gross profit margin for our mobile marketing solutions represents gross profit as a percentage of net revenues for mobile marketing solutions.

	Year Ended December 31,					
	2017		2018		2019	
	(US in thousands)	(% of net revenues for mobile marketing solutions)	(US in thousands)	(% of net revenues for mobile marketing solutions)	(US in thousands)	(% of net revenues for mobile marketing solutions)
Cost of revenues for mobile marketing solutions	90,899	89.6	119,953	85.4	139,116	81.3
Gross profit for mobile marketing solutions	10,527	10.4	20,475	14.6	31,951	18.7

The table below shows the cost of revenues, gross profit and gross profit margin for our other marketing solutions for the periods presented. Gross profit margin for our other marketing solutions represents gross profit as a percentage of net revenues for other marketing solutions.

	Year Ended December 31,					
	2017		2018		2019	
	(US in thousands)	(% of net revenues for other marketing solutions)	(US in thousands)	(% of net revenues for other marketing solutions)	(US in thousands)	(% of net revenues for other marketing solutions)
Cost of revenues for other marketing solutions	4,834	20.3	943	4.8	861	4.8
Gross profit for other marketing solutions	18,998	79.7	18,646	95.2	17,044	95.2

Mobile marketing solutions are relatively nascent compared to other marketing solutions, with companies competing for greater market shares as they enter into this market and as mobile apps publishers tend to have stronger bargaining power compared to other online publishers as a result of the growing popularity of mobile apps. Due to this competitive landscape and pricing pressure, mobile marketing solutions tend to command a lower gross profit margin compared to non-mobile marketing solutions. In addition, the percentage of gross billing from mobile marketing solutions recognized as net revenues on a gross basis in 2017, 2018 and 2019 was 57.2%, 41.0% and 29.2%, respectively, greater than that for our other marketing solutions of 10.1%, 6.1% and 3.3%, respectively in the same periods. As a result, gross profit margin for our mobile marketing solutions in 2017, 2018 and 2019, which was 10.4%, 14.6%, and 18.7%, respectively, was significantly lower than that for our other marketing solutions, which was 79.7%, 95.2%, and 95.2%, respectively, in the same periods.

The table below shows the cost of revenues, gross profit and gross profit margin for our sales agency arrangement for the periods presented. Cost of revenues for sales agency arrangement primarily consists of rebates we granted to marketer and marketing agency clients under the sales agency arrangement prior to January 1, 2018 when we adopted ASC 605, and other taxes. Gross profit margin for sales agency arrangement represents gross profit as a percentage of net revenues derived from sales agency arrangement.

	Year Ended December 31,					
	2017		2018		2019	
	(US in thousands)	(% of net revenues for sales agency arrangement)	(US in thousands)	(% of net revenues for sales agency arrangement)	(US in thousands)	(% of net revenues for sales agency arrangement)
Cost of revenues for sales agency arrangement	2,236	26.9	32	0.4	75	1.1
Gross profit for sales agency arrangement	6,075	73.1	8,639	99.6	6,488	98.9

The table below shows the cost of revenues, gross profit and gross profit margin for cost-plus marketing campaigns for the periods presented. Cost of revenues for cost-plus marketing campaigns primarily consists of salaries and benefits of the relevant operations and support personnel and depreciation of relevant property and equipment depreciation. Gross profit margin for cost-plus marketing campaigns represents gross profit as a percentage of net revenues derived from cost-plus marketing campaigns.

	Year Ended December 31,					
	2017		2018		2019	
	(US in thousands)	(% of net revenues for cost-plus marketing campaigns)	(US in thousands)	(% of net revenues for cost-plus marketing campaigns)	(US in thousands)	(% of net revenues for cost-plus marketing campaigns)
Cost of revenues for cost-plus marketing campaigns	1,847	17.1	2,892	23.7	2,947	17.2
Gross profit for cost-plus marketing campaigns	8,941	82.9	9,300	76.3	14,199	82.8

The table below shows the cost of revenues, gross profit and gross profit margin for specified action marketing campaigns for the periods presented. Cost of revenues for specified action marketing campaigns primarily consists of media cost, as deducted by rebates received from publishers. Gross profit margin for specified action marketing campaigns represents gross profit as a percentage of net revenues derived from specified action marketing campaigns.

	Year Ended December 31,					
	2017		2018		2019	
	(US in thousands)	(% of net revenues for specified action marketing campaigns)	(US in thousands)	(% of net revenues for specified action marketing campaigns)	(US in thousands)	(% of net revenues for specified action marketing campaigns)
Cost of revenues for specified action marketing campaigns	91,650	86.3	117,973	84.8	136,955	82.9
Gross profit for specified action marketing campaigns	14,509	13.7	21,181	15.2	28,308	17.1

#### *Enterprise Solutions*

Cost of revenues for our enterprise solutions primarily consists of amortization expenses related to the computer software and systems, salaries and benefits of relevant operations and support personnel, depreciation of relevant property and equipment and other direct services costs. Our cost of revenues for enterprise solutions was US\$2.7 million for 2019.

Gross profit margin for enterprise solutions represents gross profit as a percentage of net revenues derived from enterprise solutions. In 2019, our gross profit for enterprise solutions was US\$7.7 million, and our gross profit margin for enterprise solutions was 73.9%.

## Operating Expenses

We classify our operating expenses into three categories: research and development expenses, sales and marketing expenses and general and administrative expenses. The following table sets forth our operating expenses, both in absolute amount and as a percentage of our net revenues, for the periods presented.

	Year Ended December 31,					
	2017		2018		2019	
	(US in thousands)	(% of net revenues)	(US in thousands)	(% of net revenues)	(US in thousands)	(% of net revenues)
Operating expenses	(44,696)	(35.7)	(66,574)	(41.6)	(68,846)	(34.5)
Research and development expenses	(5,778)	(4.6)	(10,737)	(6.7)	(5,574)	(2.8)
Sales and marketing expenses	(25,935)	(20.7)	(32,080)	(20.0)	(42,968)	(21.5)
General and administrative expenses	(12,983)	(10.4)	(23,757)	(14.9)	(20,304)	(10.2)

- *Research and development expenses.* Research and development expenses consist primarily of (i) salary and welfare for research and development personnel, (ii) rental expenses and (iii) depreciation of office premise and servers utilized by research and development personnel.
- *Sales and marketing expenses.* Sales and marketing expenses consist primarily of (i) advertising and marketing expenses, and (ii) salary and welfare for sales and marketing personnel.
- *General and administrative expenses.* General and administrative expenses consist primarily of (i) salary and welfare for general and administrative personnel, and (ii) professional service fees. Professional service fees primarily related to legal and audit service in connection with our private placements and acquisitions, preparation for our initial public offering, issuance of convertible notes and merger and acquisitions. We expect to continue to invest in our corporate infrastructure and incur expenses related to being a public company, including accounting and legal fees, investor relations costs and compliance costs.

## Taxation

### The Cayman Islands

We and our subsidiary incorporated in the Cayman Islands are not subject to income, corporation or capital gains tax, estate duty, inheritance tax or gift tax. In addition, payment of dividends to our shareholders or the shareholder of our subsidiary in the Cayman Islands are not subject to withholding tax in the Cayman Islands.

### The British Virgin Islands

Our subsidiaries incorporated in the British Virgin Islands are not subject to income or capital gains taxes, estate duty, inheritance tax or gift tax. In addition, payment of dividends to the shareholders of our subsidiaries in British Virgin Islands are not subject to withholding tax in the British Virgin Islands.

### Hong Kong

Our subsidiaries incorporated in Hong Kong are subject to 16.5% Hong Kong profit tax on their taxable income generated from operations in Hong Kong under the current Hong Kong Inland Revenue Ordinance. Under the Hong Kong tax laws, we are exempted from the Hong Kong income tax on our foreign-derived income. In addition, payments of dividends from our Hong Kong subsidiary to us are not subject to any Hong Kong withholding tax.

### PRC

Generally, our PRC subsidiaries, our consolidated VIE and its subsidiary, which are considered PRC resident enterprises under PRC tax law, are subject to enterprise income tax on their worldwide taxable income as determined under PRC tax laws and accounting standards at a rate of 25%.

We are subject to value added tax, or VAT, at a rate of 6% on the services we provide, less any deductible VAT we have already paid or borne. We are also subject to surcharges on VAT payments in accordance with PRC law. VAT has been phased in since August 2013 to replace the business tax that was previously applicable to the services we provide. During the periods presented, we were not subject to business tax on the services we provide.

Dividends paid by our wholly foreign-owned subsidiary in China to our intermediary holding company in Hong Kong will be subject to a withholding tax rate of 10%, unless the relevant Hong Kong entity satisfies all the requirements under the Arrangement between the PRC and the Hong Kong Special Administrative Region on the Avoidance of Double Taxation and Prevention of Fiscal Evasion with respect to Taxes on Income and receives approval from the relevant tax authority. If our Hong Kong subsidiary satisfies all the requirements under the tax arrangement and receives approval from the relevant tax authority, then the dividends paid to the Hong Kong subsidiary would be subject to withholding tax at the standard rate of 5%. See “Item 3. Key Information—D. Risk Factors—Risks Related to Doing Business in China—We rely on dividends and other distributions on equity paid by our PRC subsidiaries to fund any cash and financing requirements we may have, and any limitation on the ability of our PRC subsidiaries to make payments to us could have a material adverse effect on our ability to conduct our business.”

If our holding company in the Cayman Islands or any of our subsidiaries outside of China were deemed to be a “resident enterprise” under the PRC Enterprise Income Tax Law, it would be subject to enterprise income tax on its worldwide income at a rate of 25%. See “Item 3. Key Information—D. Risk Factors—Risks Related to Doing Business in China—If we are classified as a PRC resident enterprise for PRC income tax purposes, such classification could result in unfavorable tax consequences to us and our non-PRC shareholders or ADS holders.”

## **Year Ended December 31, 2019 Compared to Year Ended December 31, 2018**

### ***Net Revenues***

Our net revenues increased by US\$39.4 million, or 24.6%, from US\$160.0 million in 2018 to US\$199.4 million in 2019, primarily as a result of an increase in our net revenues from our marketing solutions and the launch and development of our enterprise solutions.

Net revenues from our mobile marketing solutions increased by US\$30.7 million, or 21.9% from US\$140.4 million in 2018 to US\$171.1 million in 2019 as a result of a stronger market demand for our mobile marketing solutions. US\$134.8 million, or 41.0%, of gross billing from mobile marketing solutions was recognized as net revenues on a gross basis in 2018, compared to US\$404.0 million, or 71.0%, in 2019. Rebates received from publishers and recognized as net revenues increased by US\$45.3 million, or 136%, from US\$33.2 million in 2018 to US\$78.5 million in 2019 for our mobile marketing solutions because of the growth in gross billing from mobile marketing solutions. We did not receive any incentives from the publishers under our sales agency arrangement in 2019 and 2018 for our mobile marketing solutions. Rebates and discounts granted to our clients and recognized as reduction of revenue increased by US\$25.9 million, or 59.0% from US\$43.9 million in 2018 to US\$69.8 million in 2019 for our mobile marketing solutions as gross billing from mobile marketing solutions increased.

Net revenues from our other marketing solutions decreased by US\$1.7 million, or 8.6% from US\$19.6 million in 2018 to US\$17.9 million in 2019 primarily as a result of our strategic focus on our mobile marketing solutions and enterprise solutions, compared with other marketing solutions. US\$4.3 million, or 6.1%, of gross billing from other marketing solutions was recognized as net revenues on a gross basis in 2018, compared to US\$2.1 million, or 3.3%, in 2019. Rebates received from publishers and recognized as net revenues increased by US\$0.4 million or 12.1% from US\$3.3 million in 2018 to US\$3.7 million in 2019 for our other marketing solutions as we have negotiated favorable terms with publishers. Incentives received from the publishers under our sales agency arrangement, which were recognized as net revenues decreased by US\$2.6 million, or 23.0% from US\$11.3 million in 2018 to US\$8.7 million in 2019 for our other marketing solutions due to fewer promotions received from the publisher. Rebates granted to our clients and recognized as reduction of revenue decreased by US\$0.5 million, or 10.6% from US\$5.2 million in 2018 to US\$4.7 million in 2019 for our other marketing solutions as we received fewer promotions from the publishers.

Net revenues from our enterprise solutions was US\$10.4 million in 2019.

## Cost of Revenues, Gross Profit and Gross Profit Margin

	Year Ended December 31,	
	2018	2019
	(US\$ in thousands, except %)	
Cost of revenues	(120,897)	(142,703)
Gross profit	39,120	56,705
Gross profit margin	24.4%	28.4%

Our cost of revenues increased by US\$21.8 million, or 18.0%, from US\$120.9 million in 2018 to US\$142.7 million in 2019, primarily as a result of an increase in media cost, which increased by US\$21.4 million, or 18.4%, from US\$116.2 million in 2018 to US\$137.6 million in 2019 as a result of our sales growth during the year. 25.8% of our gross billing in 2019 was recognized as net revenues on a gross basis, compared to 34.8% in 2018.

Cost of revenues for our mobile marketing solutions increased by US\$19.1 million, or 15.9%, from US\$120.0 million in 2018 to US\$139.1 million in 2019, while cost of revenues for our other marketing solutions remained stable at US\$0.9 million in 2018 and 2019 respectively.

The increase in cost of revenues for our mobile marketing solutions was in line with the growth of gross billing from mobile marketing solutions. US\$165.0 million, or 29.2%, of gross billing from mobile marketing solutions was recognized as net revenues on a gross basis in 2019, compared to US\$134.8 million, or 41.0%, in 2018. No rebate or discount we granted was recognized as cost of revenues for our mobile marketing solutions in 2017 or 2018 as they were recorded as a reduction of revenue. Rebates received from website publishers recognized as deduction of cost of revenues increased by US\$42.9 million, or 224.6% from US\$19.1 million in 2018 to US\$62.0 million in 2019 for our mobile marketing solutions as gross billing from mobile marketing solutions increased.

The cost of revenues from our other marketing solutions remained unchanged and it was in line with the relative stable gross billing from other marketing solutions.

Starting from 2019, we have also generated revenue from high margin SaaS products which are cloud-hosted software offering enterprise solutions to customers through provision of software licenses and retail and CRM solutions. Cost of revenue for our enterprise solutions was US\$2.7 million in 2019.

As a result of the above, our gross profit increased from US\$39.1 million in 2018 to US\$56.7 million in 2019. Specifically, gross profit for our mobile marketing solutions increased by US\$11.5 million, or 56.1%, from US\$20.5 million in 2018 to US\$32.0 million in 2019, partially offset by a decrease in our gross profit for our other marketing solutions of US\$1.6 million, or 8.6%, from US\$18.6 million in 2018 to US\$17.0 million in 2019. Our gross profit for enterprise solutions was US\$7.7 million in 2019.

Our gross profit margin increased from 24.4% in 2018 to 28.4% in 2019 primarily due to our continued client base optimization to focus on profitability and liquidity, and contribution from the newly launched enterprise solutions with higher margin. Gross profit margin for our mobile marketing solutions increased from 14.6% in 2018 to 18.7% in 2019. Gross profit margin for our other marketing solutions remained stable at 95.2% in 2018 and 2019. Our gross profit margin for enterprise solutions was 73.9% in 2019.

Mobile marketing solutions are relatively nascent compared to other marketing solutions, with companies competing for more market share as they enter into this market and as mobile apps publishers tend to have stronger bargaining power compared to other online publishers as a result of the growing popularity of mobile apps. Due to this competitive landscape and pricing pressure, mobile marketing solutions tend to command a lower gross profit margin compared to non-mobile marketing solutions. Furthermore, as we continue to focus on the growth of our mobile marketing solutions, we may, from time to time, prioritize on engaging with marketing agency clients, which may generate larger marketing spend per client compared to direct marketer clients. On the other hand, net revenues as a percentage of gross billing and gross profit margin tend to be lower for marketing agency clients. In addition, consistent with the general industry trends for online marketing on mobile channels and on non-mobile channels, the percentage of gross billing from our mobile marketing solutions recognized as net revenues on a gross basis in 2018 and 2019 was 41.0% and 29.2% respectively, greater than compared to that for our other marketing solutions of 6.1% in 2019 and 3.3% respectively, for the same periods. As a result, gross profit margin for our mobile marketing solutions in 2018 and 2019 was significantly lower than that for our other marketing solutions for the same periods.

### **Operating Expenses**

Our operating expenses increased by US\$2.3 million, or 3.4%, in 2019 compared to 2018, primarily due to an increase in our operating expenses incurred for new business, convertible notes issuance cost and professional fees in relation to acquisitions, partially offset by the decrease in our share-based compensation. The operating expenses as a percentage of net revenues decreased from 41.6% in 2018 to 34.5% in 2019.

- *Sales and marketing expenses.* Our sales and marketing expenses increased by US\$10.9 million, or 33.9%, from US\$32.1 million in 2018 to US\$43.0 million in 2019. The increase was primarily due to an increase in staff cost, and marketing and promotion expenses in relation to our new business development and our tenth anniversary. Sales and marketing expenses as a percentage of net revenues increased from 20.0% in 2018 to 21.5% in 2019.
- *General and administrative expenses.* Our general and administrative expenses decreased by US\$3.5 million, or 14.5%, from US\$23.8 million in 2018 to US\$20.3 million in 2019, primarily due to a decrease in share-based compensation expenses, partially offset by the increase in convertible notes issuance cost and professional fees in relation to acquisitions. General and administrative expenses as a percentage of net revenues decreased from 14.8% in 2018 to 10.2% in 2019.
- *Research and development expenses.* Our research and development expenses decreased by US\$5.2 million, or 48.1%, from US\$10.7 million in 2018 to US\$5.6 million in 2019, primarily due to a decrease in share-based compensation for research and development personnel. As a result, research and development expenses as a percentage of our net revenues decreased from 6.7% in 2018 to 2.8% in 2019.

### **Interest Income**

Our interest income was US\$0.4 million and US\$0.5 million in 2018 and 2019, respectively.

### **Interest Expense**

Our interest expense was US\$0.8 million and US\$1.9 million in 2018 and 2019, respectively. The change was primarily attributable to the increase in banking facilities provided by additional banks in 2019.

### **Other Gains, Net**

Our other gains, net was US\$0.7 million in 2018, compared to other gains, net of US\$3.0 million in 2019. The change was primarily because of subsidy granted by relevant government authorities in China during 2019.

### **Fair Value (Losses)/Gains on Convertible Notes**

We recorded fair value gains on convertible notes of US\$0.1 million for 2019, compared with fair value losses on convertible notes of US\$4.8 million for 2018.

### **Income Tax Expense**

We recorded an income tax expenses of US\$0.7 million and US\$47 thousands in 2018 and 2019, respectively. The decrease was primarily because of changes in profit or loss of our subsidiaries with different tax rates and reduction of non-deductible expenses.

### **Net Loss**

As a result of the foregoing, our net loss decreased by 67% from US\$32.6 million in 2018 to US\$10.8 million in 2019.

## Year Ended December 31, 2018 Compared to Year Ended December 31, 2017

### Net Revenues

Our net revenues increased by US\$34.7 million, or 27.7%, from US\$125.3 million in 2017 to US\$160.0 million in 2018, primarily as a result of an increase in our net revenues from our mobile marketing solutions, and partially offset by the effect of adoption of ASC 606 "Revenue from Contracts with Customers" using the modified retrospective method on January 1, 2018. As a result of the adoption of ASC 606, rebates we grant under our sales agency arrangements are presented net of revenues, as opposed to being included as in cost of revenues in prior periods, and resulted in a two percentage point decrease in net revenues when compared with 2017.

Net revenues from our mobile marketing solutions increased by US\$39.0 million, or 38.5% from US\$101.4 million in 2017 to US\$140.4 million in 2018 as a result of a stronger market demand for our mobile marketing solutions. US\$98.5 million, or 57.2%, of gross billing from mobile marketing solutions was recognized as net revenues on a gross basis in 2017, compared to US\$134.8 million, or 41.0%, in 2018. Rebates received from publishers and recognized as net revenues increased by US\$20.2 million, or 155.9%, from US\$13.0 million in 2017 to US\$33.2 million in 2018 for our mobile marketing solutions because of the growth in gross billing from mobile marketing solutions. We did not receive any incentives from the publisher under our sales agency arrangement in 2017 and 2018 for our mobile marketing solutions. Rebates and discounts granted to our clients and recognized as reduction of revenue increased by US\$21.5 million, or 95.9% from US\$22.4 million in 2017 to US\$43.9 million in 2018 for our mobile marketing solutions as gross billing from mobile marketing solutions increased and also as a result of our adoption of ASC 606.

Net revenues from our other marketing solutions decreased by US\$4.2 million or 17.8% from US\$23.8 million in 2017 to US\$19.6 million in 2018 primarily as a result of our strategic focus on our mobile marketing solutions compared with other marketing solutions. US\$7.7 million, or 10.1%, of gross billing from other marketing solutions was recognized as net revenues on a gross basis in 2017, compared to US\$4.3 million, or 6.1%, in 2018. Rebates received from publishers and recognized as net revenues increased by US\$1.2 million or 51.9% from US\$2.1 million in 2017 to US\$3.3 million in 2018 for our other marketing solutions as gross billing from other marketing solutions that were conducted on a cost-plus basis decreased. Incentives received from the publisher under our sales agency arrangement, which were recognized as net revenues increased by US\$3.0 million, or 36.3% from US\$8.3 million in 2017 to US\$11.3 million in 2018 for our other marketing solutions due to promotions received from the publisher. Rebates granted to our clients and recognized as reduction of revenue increased by US\$0.7 million, or 34.8% from US\$1.9 million in 2017 to US\$5.2 million in 2018 for our other marketing solutions as we benefited our clients after getting higher promotion rates from the publishers and also as a result of our adoption of ASC 606.

### Cost of Revenues, Gross Profit and Gross Profit Margin

	Year Ended December 31,	
	2017	2018
	(US\$ in thousands, except %)	
Cost of revenues	(95,733)	(120,897)
Gross profit	29,525	39,120
Gross profit margin	23.6%	24.4%

Our cost of revenues increased by US\$25.2 million, or 26.3%, from US\$95.7 million in 2017 to US\$120.9 million in 2018, primarily as a result of an increase in media cost, which increased by US\$27.2 million, or 30.6%, from US\$89.0 million in 2017 to US\$116.2 million in 2018 as a result of our sales growth during the year. 34.8% of our gross billing in 2018 was recognized as net revenues on a gross basis, compared to 42.8% in 2017. Cost of revenues for our mobile marketing solutions increased by US\$29.1 million, or 32.0%, from US\$90.9 million to US\$120.0 million, while cost of revenues for our other marketing solutions decreased by US\$3.9 million, or 80.5%, from US\$4.8 million to US\$0.9 million.

The increase in cost of revenues for our mobile marketing solutions was in line with the growth of gross billing from mobile marketing solutions. US\$134.8 million, or 41.0%, of gross billing from mobile marketing solutions was recognized as net revenues on a gross basis in 2018, compared to US\$98.5 million, or 57.2%, in 2017. No rebate or discount we granted was recognized as cost of revenues for our mobile marketing solutions in 2017 or 2018 as they were recorded as a reduction of revenue. Rebates received from website publishers recognized as deduction of cost of revenues increased by US\$2.8 million, or 17.2% from US\$16.3 million in 2017 to US\$19.1 million in 2018 for our mobile marketing solutions as gross billing from mobile marketing solutions increased.

The decrease in cost of revenues from our other marketing solutions was in line with the decrease of gross billing from other marketing solutions as a result of our continued client base optimization. In addition, on January 1, 2018, we adopted ASC 606 “Revenue from Contracts with Customers” using the modified retrospective method. As a result of the adoption, rebates we granted to marketers and marketing agencies under our sales agency arrangement was recorded as reduction of revenue, as opposed to being included in cost of revenues as in 2017, which also contributed to the decrease in cost of revenues for other marketing solutions, as sales agency arrangement only applies to other marketing solutions in 2018.

As a result of the above, our gross profit increased from US\$29.5 million in 2017 to US\$39.1 million in 2018. Specifically, gross profit for our mobile marketing solutions increased by US\$10.0 million, or 94.5%, from US\$10.5 million in 2017 to US\$20.5 million in 2018, partially offset by a decrease in our gross profit for our other marketing solutions of US\$0.4 million, or 1.9% from US\$19.0 million in 2017 to US\$18.6 million in 2018. Our gross profit margin increased from 23.6% in 2017 to 24.4% in 2018 primarily due to our continued client base optimization to focus on profitability and liquidity and the effect of adoption of ASC 606 after January 1, 2018, pursuant to which rebates we granted to marketers and marketing agencies under our sales agency arrangement was recorded as reduction of revenue, as opposed to being included in cost of revenues as in 2017. Gross profit margin for our mobile marketing solutions increased from 10.4% in 2017 to 14.6% in 2018. Gross profit margin for our other marketing solutions increased from 79.7% in 2017 to 95.2% in 2018.

Marketing agency clients represented 27.7% and 28.1% of our clients in 2017 and 2018, respectively. In addition, consistent with the general industry trends for online marketing on mobile channels and on non-mobile channels, the percentage of gross billing recognized as net revenues on a gross basis in 2017 and 2018 was 57.2% and 41.0%, greater than that for our other marketing solutions of 10.1% and 6.1% respectively, for the same periods. As a result, gross profit margin for our mobile marketing solutions in 2017 and 2018 was significantly lower than that for our other marketing solutions for the same periods.

### **Operating Expenses**

Our operating expenses increased by US\$21.9 million, or 48.9%, during 2018 compared to 2017, primarily due to share based compensation expenses, which increased by US\$14.3 million to US\$19.3 million in the full year 2018 from US\$5.0 million in the full year 2017. In addition, we incurred convertible notes issuance cost and professional fees in relation to acquisitions of US\$2.2 million and US\$1.7 million, respectively. The operating expenses as a percentage of net revenues increased from 35.7% in 2017 to 41.6% in 2018.

- *Sales and marketing expenses.* Our sales and marketing expenses increased by US\$6.2 million, or 23.7%, from US\$25.9 million in 2017 to US\$32.1 million in 2018. The increase was primarily due to an increase in share-based compensation expenses and staff cost. Sales and marketing expenses as a percentage of net revenues decreased from 20.7% in 2017 to 20.0% in 2018.
- *General and administrative expenses.* Our general and administrative expenses increased by US\$10.8 million, or 83.0%, from US\$13.0 million in 2017 to US\$23.8 million in 2018, primarily due to increase in share-based compensation expenses, convertible notes issuance cost and professional fees in relation to acquisitions. General and administrative expenses as a percentage of net revenues increased from 10.4% in 2017 to 14.8% in 2018.
- *Research and development expenses.* Our research and development expenses increased by US\$4.9 million, or 85.8%, from US\$5.8 million in 2017 to US\$10.7 million in 2018, primarily due to an increase in share-based compensation expenses for research and development personnel. As a result, research and development expenses as a percentage of our net revenues increased from 4.6% in 2017 to 6.7% in 2018.

### **Interest Income**

Our interest income was nil and US\$0.4 million in 2017 and 2018, respectively.

### **Interest Expense**

Our interest expense was US\$0.6 million and US\$0.8 million in 2017 and 2018, respectively.

### **Other Gains, Net**

Our other gains, net was US\$1.8 million in 2017, compared to other gains, net of US\$0.7 million in 2018. The change was primarily because of a net exchange loss by US\$0.9 million in 2018, compared to US\$1.8 million gain in 2017, mainly due to the depreciation of Renminbi against the US dollars.

### ***Fair Value Loss on Convertible Notes***

Our fair value loss on convertible notes was US\$4.8 million in 2018 for the US\$30.0 million convertible notes issued in September 2018, impacted by volatility of stock price and discount on conversion price.

### ***Fair Value Loss on Derivative Liabilities***

Our fair value loss on derivative liabilities was US\$10.2 million in 2017, compared to nil amount in 2018, since the preferred shares were converted into ordinary shares after the closing of initial public offering in December 2017.

### ***Income Tax Expense***

We recorded an income tax expenses of US\$0.5 million and US\$0.7 million in 2017 and 2018, respectively.

### ***Net Loss***

As a result of the foregoing, our net loss increased by 32.5% from US\$24.6 million in 2017 to US\$32.6 million in 2018.

### ***Impact of Recently Issued Accounting Standards***

In June 2016, the FASB issued ASU 2016-13, Financial Instruments-Credit Losses, which changes the impairment model for most financial assets and certain other instruments. For trade and other receivables, held-to-maturity debt securities, loans and other instruments, entities will be required to use a new forward-looking “expected loss” model that will replace today’s “incurred loss” model and generally will result in the earlier recognition of allowances for losses. For available-for-sale debt securities with unrealized losses, entities will measure credit losses in a manner similar to current practice, except that the losses will be recognized as an allowance. Subsequent to issuing ASU 2016-13, the FASB issued ASU 2018-19, Codification Improvements to Topic 326, Financial Instruments—Credit Losses, for the purpose of clarifying certain aspects of ASU 2016-13. In April 2019, the FASB issued ASU 2019-04, Codification Improvements to Topic 326, Financial Instruments—Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments. In May 2019, the FASB issued ASU 2019-05, Financial Instruments—Credit Losses (Topic 326): Targeted Transition Relief, or ASU 2019-05, to provide entities with more flexibility in applying the fair value option on adoption of the credit impairment standard. In November 2019, the FASB issued ASU 2019-11, Codification Improvements to Topic 326, Financial Instruments—Credit Losses, which expands the scope of the practical expedient that allows entities to exclude the accrued interest component of amortized cost from various disclosure. Entities that elect to apply the practical expedient must disclose the total amount of accrued interest that they exclude from their disclosures of amortized cost. ASU 2018-19, ASU 2019-04, ASU 2019-05 and ASU 2019-11 have the same effective date and transition requirements as ASU 2016-13. Early adoption is permitted starting in the first quarter of fiscal 2020. We estimated that the adoption of ASC 326 would result in a net adjustment of approximately US\$4.0 million to the opening balance of accumulated losses with a corresponding credit loss provision over accounts receivable being recognized in the consolidated balance sheet as of January 1, 2020. Other than disclosed, we do not expect the new standard to have a material impact on the consolidated financial statements.

In January 2017, the FASB issued ASU 2017-04, “Intangibles—Goodwill and Other (Topic 350): Simplifying the test for goodwill impairment,” the guidance removes Step 2 of the goodwill impairment test, which requires a hypothetical purchase price allocation. Goodwill impairment will now be the amount by which a reporting unit’s carrying value exceeds its fair value, not the difference between the fair value and carrying amount of goodwill which was the step 2 test before. The ASU should be adopted on a prospective basis for the annual or any interim goodwill impairment tests beginning after December 15, 2019. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. We do not expect adoption of this ASU to be material to its consolidated financial statements on known trends, demands, uncertainties and events in its business. We plan to adopt ASU 2017-04 on January 1, 2020 and do not expect that the adoption of this ASU to have a material impact on the consolidated financial statements.

In November 2019, the FASB issued ASU 2019-08, Compensation—Stock Compensation (Topic 718) and Revenue from Contracts with Customers (Topic 606), which requires entities to measure and classify share based payments to a customer, in accordance with the guidance in ASC 718, Compensation—Stock Compensation. The amendments in that ASU expanded the scope of Topic 718 to include share-based payment transactions for acquiring goods and services from nonemployees and, in doing so, superseded guidance in Subtopic 505-50, Equity—Equity-Based Payments to Non-Employees. The amount that would be recorded as a reduction in revenue would be measured based on the grant date fair value of the share based payment, in

accordance with Topic 718. The grant date is the date at which a supplier and customer reach a mutual understanding of the award's key terms and conditions. The award's classification and subsequent measurement would be subject to ASC 718 unless the award is modified or the grantee is no longer a customer. The amendments in this ASU are effective for public business entities in fiscal years beginning after December 15, 2019, and interim periods within those fiscal years. Early adoption is permitted, but not before it adopts the amendments in ASU 2018-07. We do not expect that the adoption of this ASU to have a material impact on the consolidated financial statements.

In August 2018, the FASB issued ASU 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement (“ASU 2018-13”) which eliminates, adds and modifies certain disclosure requirements for fair value measurements. Under the guidance, public companies will be required to disclose the range and weighted average used to develop significant unobservable inputs for Level 3 fair value measurements. The guidance is effective for all entities for fiscal years beginning after December 15, 2019 and for interim periods within those fiscal years, but entities are permitted to early adopt either the entire standard or only the provisions that eliminate or modify the requirements. We do not expect that the adoption of this ASU to have a material impact on the consolidated financial statements.

In August 2018, the FASB issued ASU 2018-15, Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40), which aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal use software license). The accounting for the service element of a hosting arrangement that is a service contract is not affected by the amendments in this update. The update is effective for public business entities for interim and annual periods beginning after December 15, 2019. We do not expect that the adoption of this ASU to have a material impact on the consolidated financial statements.

In October 2018, the FASB issued ASU 2018-17, “Consolidation (Topic 810): Targeted Improvements to Related Party Guidance for Variable Interest Entities,” which provides guidance that indirect interests held through related parties under common control will be considered on a proportional basis when determining whether fees paid to decision makers and service providers are variable interests. These indirect interests were previously treated the same as direct interests. The consideration of indirect interests on a proportional basis is consistent with how indirect interests held through related parties under common control are treated when determining if a reporting entity within a related party group is the primary beneficiary of a VIE. The new guidance is effective retrospectively for the year ending December 31, 2020 and interim reporting periods during the year ending December 31, 2020 with a cumulative-effect adjustment to retained earnings at the beginning of the earliest period presented. Early adoption is permitted. We did not early adopt and is currently evaluating the impact of adopting this ASU on our consolidated financial statements.

In December 2019, the FASB issued ASU 2019-12, Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes. The amendments in this ASU simplify the accounting for income taxes by removing certain exceptions to the general principles in Topic 740. The amendments also improve consistent application of and simplify GAAP for other areas of Topic 740 by clarifying and amending existing guidance. The amendments are effective for public entities in fiscal years beginning after December 15, 2020, including interim periods within those fiscal years. Early adoption is permitted. We did not early adopt and is currently evaluating the impact of adopting this ASU on our consolidated financial statements.

In January 2020, the FASB issued ASU No. 2020-01, “Investments—Equity Securities (Topic 321), Investments—Equity Method and Joint Ventures (Topic 323), and Derivatives and Hedging (Topic 815)”, that clarifies the interactions between Topic 321, Topic 323, and Topic 815. The amendments in this ASU affect the application of the measurement alternative for certain equity securities and the equity method of accounting, and guidance for certain forward contracts and purchased options to purchase securities, that, upon settlement or exercise, would be accounted for under the equity method of accounting. The ASU is effective for public entities in fiscal years beginning after December 15, 2021, including interim periods within those fiscal years. Early adoption is permitted. We did not early adopt and is currently evaluating the impact of adopting this ASU on our consolidated financial statements.

## **B. Liquidity and Capital Resources**

### ***Cash Flows and Working Capital***

Our principal sources of liquidity have been cash generated from our operating activities, proceeds from our initial public offering, proceeds from our issuance of convertible notes, and proceeds from bank borrowings. As of December 31, 2019, we had US\$36.9 million in cash and cash equivalents, time deposits of US\$0.4 million, restricted cash of US\$23.9 million, and borrowing capacity of US\$36.9 million under our revolving credit facilities of a total principal amount of US\$75.7 million. As of December 31, 2019, our cash and cash equivalents primarily consisted of cash on hand, cash held at bank, and time deposits

placed with banks or other financial institutions, which have original maturities of three months or less. We believe that our current cash and cash equivalents, short-term investments, together with the borrowing capacity under our revolving credit facilities and the term loan facility will be sufficient to meet our anticipated working capital requirements and capital expenditures for the next 12 months. We may, however, need additional capital in the future to fund our continued operations. If we determine that our cash requirements exceed our available financial resources, we may seek to issue equity or debt securities or obtain credit facilities.

The issuance and sale of additional equity would result in further dilution to our shareholders. The incurrence of indebtedness would result in increased fixed obligations and could result in operating and financial covenants that might restrict our operations. We cannot assure you that financing will be available in amounts or on terms acceptable to us, if at all.

In addition, although we consolidate the results of our consolidated VIE and its subsidiary, we only have access to the assets or earnings of our consolidated VIE and its subsidiary through our contractual arrangements with our consolidated VIE and its shareholders. See “Item 4. Information on the Company—C. Organizational Structure—Contractual Arrangements with OptAim Network.” For restrictions and limitations on liquidity and capital resources as a result of our corporate structure, see “—Holding Company Structure.” A substantial amount of our future revenues are likely to be denominated in Renminbi. Under existing PRC foreign exchange regulations, payments of current account items, including profit distributions, interest payments and trade and service-related foreign exchange transactions, can be made in foreign currencies without prior approval from the SAFE as long as certain routine procedural requirements are fulfilled. However, approval from or registration with competent government authorities is required where Renminbi is to be converted into foreign currency and remitted out of China to pay capital expenses such as the repayment of loans denominated in foreign currencies. The PRC government may at its discretion restrict access to foreign currencies for current account transactions or change the foreign exchange control policy in the future. In addition, current PRC regulations permit our PRC subsidiary to pay dividends to us only out of its accumulated profits, if any, determined in accordance with Chinese accounting standards and regulations. Our PRC subsidiary is required to set aside at least 10% of its after-tax profits after making up previous years’ accumulated losses each year, if any, to fund certain reserve funds until the total amount set aside reaches 50% of its registered capital. These reserves are not distributable as cash dividends. Furthermore, capital account transactions, which include foreign direct investment and loans, must be approved by and/or registered with the SAFE and its local branches. See “Item 3. Key Information—D. Risk Factors—Risks Relating to Doing Business in China—Governmental control of currency conversion may limit our ability to utilize our revenues effectively and affect the value of your investment.”

The following table sets forth a summary of our cash flows for the periods indicated:

	Year Ended December 31,		
	2017	2018	2019
	(US\$ in thousands)		
<b>Selected Consolidated Cash Flow Data:</b>			
Net cash used in operating activities	(13,881)	(15,416)	(30,294)
Net cash (used in)/provided by investing activities	(25,165)	8,395	6,762
Net cash provided by financing activities	25,546	27,775	44,804
Effect on exchange rate changes on cash and cash equivalents and restricted cash	387	(327)	(394)
Net (decrease)/increase in cash and cash equivalents and restricted cash	(13,500)	20,754	21,272
Cash and cash equivalents and restricted cash at the beginning of year	32,514	19,401	39,828
Cash and cash equivalents and restricted cash at the end of year	19,401	39,828	60,706

### **Operating Activities**

Net cash used in operating activities amounted to US\$30.3 million in 2019, which was mainly attributable to a net loss of US\$10.8 million and a net decrease in working capital of US\$33.9 million, partially offset by non-cash items of US\$14.4 million. The net decrease in working capital of US\$33.9 million was primarily attributable to increase in accounts receivable and prepaid media cost of US\$85.4 million and US\$6.7 million, respectively, partially offset by increase in accounts payable of US\$61.3 million. The non-cash items of US\$14.4 million were primarily attributable to amortization of intangible assets and right-of-use assets of US\$6.3 million, convertible notes transaction expenses in form of non-employee warrant award, and share-based compensation of US\$2.1 million.

Net cash used in operating activities amounted to US\$15.4 million in 2018, which was mainly attributable to a net loss of US\$32.6 million and a net decrease in working capital of US\$13.7 million, partially offset by non-cash items of US\$30.9 million. The net decrease in working capital of US\$13.7 million was primarily attributable to decrease in deferred revenue and accrued liabilities and other current liabilities of US\$5.9 million and US\$5.3 million, respectively, and increase in accounts receivable and rebate receivables of US\$25.5 million and US\$2.7 million, respectively, partially offset by decrease in prepaid media cost of US\$18.5 million as a result of the change of payment terms with our media vendors and decrease in prepayment and other assets of US\$4.4 million. The non-cash items of US\$30.9 million were primarily attributable to share-based compensation of US\$19.7 million, fair value losses on convertible notes of US\$4.8 million, and amortization of intangible assets of US\$4.2 million.

Net cash used in operating activities amounted to US\$13.9 million in 2017, which was mainly attributable to a net loss of US\$24.6 million and a net decrease in working capital of US\$10.3 million, partially offset by non-cash items of US\$21.0 million. The net decrease in working capital of US\$10.3 million was primarily attributable to a decrease in accounts payable of US\$5.5 million and an increase in accounts receivable and prepaid media costs of US\$9.8 million and US\$2.5 million, respectively, partially offset by a decrease in rebate receivables of US\$0.9 million, and an increase in deferred revenue of US\$5.8 million. The non-cash items of US\$21.0 million were primarily attributable to fair value losses on derivative liabilities of US\$10.2 million due to an increase in our enterprise value as a result of a decrease in lack of marketability discount due to our initial public offering, amortization of intangible assets of US\$4.2 million relating to intangible asset and share-based compensation of US\$5.1 million.

### ***Investing Activities***

Net cash provided by investing activities in 2019 was US\$6.8 million, due to a decrease in short-term investments of US\$17.6 million, related to investment deposit product, partially offset by net of cash paid for acquisition of business of US\$7.2 million, prepaid long-term investment costs and other long-term investments of US\$1.0 million each.

Net cash provided by investing activities in 2018 was US\$8.4 million, due to the maturity of time deposits of US\$25.0 million, partially offset by increase in short-term investments of US\$17.4 million, related to investment deposit product.

Net cash used in investing activities in 2017 was US\$25.2 million, due to an increase in time deposits of US\$25.0 million.

### ***Financing Activities***

Net cash provided by financing activities in 2019 was US\$44.8 million, which was primarily attributable to net proceeds from convertible notes of US\$28.7 million and proceeds from bank borrowings, net of US\$28.5 million.

Net cash provided by financing activities in 2018 was US\$27.8 million, which was primarily attributable to net proceeds from issuance of convertible notes of US\$27.8 million.

Net cash provided by financing activities in 2017 was US\$25.5 million, which was primarily attributable to our net IPO proceed of US\$28.4 million.

### ***Credit Facilities***

In January and February 2019, we entered into two facility agreements for working capital loans with a commercial bank, which provide for a 6-month revolving loan of an aggregate amount of US\$15.0 million. We provide corporate guarantee and deposits as pledge to secure our obligations under this revolving loan. The interest rate of this loan facility is fixed at 5.25% per annum. As of December 31, 2019, the total outstanding amount of the revolving loan was US\$2.8 million.

In March 2019, we entered into a facility agreement with a commercial bank, which provides for a one-year revolving loan of HK\$24.0 million (US\$3.1 million) We provide corporate guarantee and accounts receivable as pledge to secure our obligations under this revolving loan. The interest rate of this loan facility is at 4.25% per annum over 1-month Hong Kong Interbank Offered Rate ("HIBOR"). As of December 31, 2019, the total outstanding amount of the revolving loan was HK\$4.2 million (US\$0.5 million).

In April 2019, we entered into a facility agreement for working capital loans with a commercial bank. The loan facility provides for a one-year revolving loan of US\$13.6 million, which is supported by standby documentary credit facilities of US\$15.0 million. In September 2019, this loan was subsequently amended. The amended agreement provides for a one-year revolving loan of US\$20.0 million. We provide corporate guarantee, deposits and accounts receivable as pledge to secure our obligations under this revolving loan. The interest rate of this loan facility is either (i) 120% of the benchmark interest rate determined by the PBOC for a one-year loan granted by financial institutions if the loan is drawn down in RMB, or (ii) 1-month LIBOR plus 3.00% per annum if the loan is drawn down in US\$. As of December 31, 2019, the total outstanding amount of the revolving loan was US\$2.8 million, which was wholly drawn down in US\$.

In May 2019, we entered into a facility agreement for working capital loans with a commercial bank, which provides for a one-year revolving loan of US\$10.0 million. We provide corporate guarantee and deposits to secure our obligations under this revolving loan. The interest rate of this loan facility is 1.00% per annum over deposit rate on the pledged deposit. As of December 31, 2019, the total outstanding amount of the revolving loan was US\$7.0 million.

In August 2019, we entered into two facility agreements for working capital loans with SPD Silicon Valley Bank, which provide for (i) a one-year revolving loan of RMB18.5 million (US\$2.6 million) and (ii) a one-year revolving loan of US1.6 million, respectively. The first revolving loan was subsequently renewed and amended in September 2019. These agreements provide for customary representations, warranties, affirmative and negative covenants and events of default. These agreements also include a financial covenant that requires us to meet certain minimum monthly adjusted quick ratio and minimum quarterly EBITDA. We provide corporate guarantee and deposits as pledge to secure our obligations under these revolving loans. The interest rate of these facilities is (i) 5.22% per annum, and (ii) 1-month London Inter-bank Offered Rate (“LIBOR”) plus 1.00% per annum, respectively. As of December 31, 2019, the total outstanding amount of these revolving loans was (i) RMB18.5 million (US\$2.6 million), and (ii) US\$1.6 million, respectively.

In October 2019, we entered into a one-year facility agreement for working capital loans with a commercial bank, which provides for (i) US\$15.0 million standby documentary credit facilities, (ii) US\$10.0 million combined limit for pre-shipment buyer loan and revolving loan, and (iii) US\$1.0 million overdraft facilities. We provide corporate guarantee and bank deposits as pledge to secure our obligations under these loan facilities. For the pre-shipment buyer loan, the interest rate is at either (i) HIBOR plus 3.85% per annum if the loan is drawn down in HK\$, or (ii) LIBOR plus 3.85% per annum if the loan is drawn down in US\$. For the revolving loan, the interest rate is at either (i) HIBOR plus 4.25% per annum if the loan is drawn down in HK\$, or (ii) LIBOR plus 4.25% per annum if the loan is drawn down in US\$. For the overdraft facility, the interest rate is at the bank’s US\$ best lending rate. As of December 31, 2019, the total outstanding amount of these loan facilities was US\$8.2 million.

In December 2019, we entered into two facility agreements for working capital loans with SPD Silicon Valley Bank, which provide for (i) a half-year revolving loan of RMB50.0 million (US\$7.0 million), and (ii) a one-year revolving loan of RMB50.0 million (US\$7.0 million), respectively. These agreements provide for customary representations, warranties, affirmative and negative covenants and events of default. These agreements also include a financial covenant that requires us meet certain minimum monthly adjusted quick ratio and minimum quarterly EBITDA. We provide corporate guarantee, accounts receivable/deposit as pledge to secure our obligations under these revolving loans. The interest rate of these facilities is (i) 7.00% per annum and (ii) 4.95% per annum, respectively. As of December 31, 2019, the total outstanding amount of these revolving loans was RMB80.0 million (US\$11.2 million).

As of December 31, 2017 and 2018 certain financial covenants (minimum monthly adjusted quick ratio and minimum quarterly EBITDA as defined in the banking facilities agreements) as set out in these loan agreements have been breached. The relevant subsidiaries have obtained waiver letters for waiving the requirements to meet the financial covenants such that the bank would not demand immediate repayment. As of December 31, 2019, no financial covenants as set out in these loan agreements have been breached.

Other than those shown in “—Credit Facilities,” we did not have any significant capital and other commitments, long-term obligations, or guarantees as of December 31, 2019.

### **Capital Expenditures**

We made capital expenditures of US\$0.1 million, US\$0.4 million and US\$0.1 million in 2017, 2018 and 2019, respectively. In these periods, our capital expenditures were mainly used for the purchase of property and equipment and purchase of software. We will continue to make capital expenditures to support our business.

### **Holding Company Structure**

iClick Interactive Asia Group Limited is a Cayman Islands exempted limited liability company, used as a holding company with no material operations of its own. We conduct our operations primarily through our wholly-owned subsidiaries, our consolidated VIE and its subsidiary in China. As a result, our ability to pay dividends depends upon dividends paid by our PRC subsidiaries. If our PRC subsidiaries or any newly formed subsidiaries incur debt on their own behalf in the future, the instruments governing their debt may restrict their ability to pay dividends to us. In addition, our wholly-owned subsidiaries are permitted to pay dividends to us only out of their retained earnings, if any, as determined in accordance with PRC accounting standards and regulations. Under PRC law, each of our wholly-owned PRC subsidiaries and consolidated affiliated entities is required to set aside at least 10% of its after-tax profits each year, if any, to fund a statutory reserve until such reserve reaches 50% of its registered capital. Although the statutory reserves can be used, among other ways, to increase the registered capital and eliminate future losses in excess of retained earnings of the respective companies, the reserve funds are not distributable as cash dividends except in the event of liquidation. Remittance of dividends by a wholly foreign-owned company out of China is

subject to examination by the banks designated by the SAFE. We currently plan to reinvest all earnings from our PRC subsidiaries to their business developments and do not plan to request dividend distributions from them.

C. Research and Development, Patents and Licenses, Etc.

See “Item 4. Information On the Company—B. Business Overview—Research and Development” and “—Intellectual Property.”

D. Trend Information

Other than as disclosed elsewhere in this annual report, we are not aware of any trends, uncertainties, demands, commitments or events since January 1, 2019 that are reasonably likely to have a material effect on our net revenues, income, profitability, liquidity or capital resources, or that would cause reported consolidated financial information not necessarily to be indicative of future operating results or financial condition.

E. Off-balance Sheet Arrangements

We have not entered into any financial guarantees or other commitments to guarantee the payment obligations of third parties. We have not entered into any derivative contracts that are indexed to our shares and classified as shareholder’s equity, or that are not reflected in our consolidated financial statements. Furthermore, we do not have any retained or contingent interest in assets transferred to an unconsolidated entity that serves as credit, liquidity or market risk support to such entity. We do not have any variable interest in any unconsolidated entity that provides financing, liquidity, market risk or credit support to us or that engages in leasing, hedging or product development services with us.

F. Tabular Disclosure of Contractual Obligations

The following table sets forth our contractual obligations and commercial commitments as of December 31, 2019:

	Payment Due by Period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
	(US\$ in thousands)				
Operating lease obligations (1)	2,045	1,463	582	-	-
Debt obligation, including interest	38,032	38,032	-	-	-
Convertible notes, including interest(2)	34,500	1,500	33,000	-	-
Total	74,577	40,995	33,582	-	-

(1) Operating lease obligations represent our obligations for leasing office premises, which include all future cash outflows under ASC Topic 842, Leases. Please see “Leases” under Note 14 to our audited consolidated financial statements.

(2) Subsequent to December 31, 2019, the holders of these convertible notes have elected to convert the entire outstanding principal amount of the convertible notes into Class A ordinary shares, par value US\$0.001 per share, of the Company at a price of US\$7.8 per share, which was at an approximately 7% premium to the 14-day VWAP of the Company’s ADSs as of the conversion date.

G. Safe Harbor

See “Forward-Looking Statements” in this annual report.

## ITEM 6.DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

### A. Directors and Senior Management

#### Directors and Executive Officers

The following table sets forth information regarding our directors and executive officers as of the date of this annual report.

Directors and Executive Officers	Age	Position/Title
Wing Hong Sammy Hsieh	47	Chairman of the Board and Co-Founder
Jian Tang	43	Director and Chief Executive Officer and Co-Founder
Lub Bun Chong	53	Director
Matthew Chu Pong Fong	39	Director
Dylan Huang	45	Director
Honnus Cheung	49	Director
James Kim	57	Director
Terence Li	43	Director and Chief Financial Officer

*Mr. Wing Hong Sammy Hsieh* is our chairman of the board and co-founder and has served as our chief executive officer since 2009. Prior to founding our company, Mr. Hsieh held senior positions in a number of prominent technology companies. Mr. Hsieh was general manager for Asia Pacific at Efficient Frontier (now an Adobe company), a leading digital performance marketing company in 2008. Prior to that, Mr. Hsieh was director of Search Marketing at Yahoo Hong Kong during 2000 to 2008, during which he oversaw the business operations, including sales, marketing, business development and product management. Mr. Hsieh also held various sales and marketing positions at the LVMH Group and British American Tobacco earlier in his career. Mr. Hsieh received his bachelor's degree in economics from the University of California, Los Angeles.

*Mr. Jian Tang* is our director, chief executive officer and co-founder and has served as our chief operating officer since January 2016 and our chief technology officer since November 2016. Mr. Tang has approximately 20 years of experience in digital advertising and is well-known in the area of advertising technologies and big data in China. Prior to joining us, Mr. Tang founded OptAim in 2012, which was later acquired by us in July 2015. Prior to founding OptAim, Mr. Tang was Tencent's engineering director of Advertising Platform Department who helped initiate and develop Tencent's programmatic ad exchange platform. Mr. Tang had also served key research and engineering and management roles at Yahoo's global research and development center, Baidu and Microsoft Research from 2005 to 2011, where he led a number of major technical and research and development projects. Mr. Tang received his doctor's degree in computer engineering from Tsinghua University. Mr. Tang was named by Campaign Asia as one of the leaders in its Digital A-List in 2016.

*Mr. Lub Bun Chong* has served as our director since July 2019. Mr. Chong is currently a partner of C Consultancy Limited, a Hong Kong-based corporate and financial advisory firm which specializes in the advertising, digital and media sectors of China and Southeast Asia. Prior to founding C Consultancy Limited, he was the chief financial officer and the director of mergers and acquisitions of Clear Media (00100.HK), and the chief financial officer of Focus Media (002027.SZ). Mr. Chong previously worked at PricewaterhouseCoopers in China, Hong Kong and Singapore during the 1990s. Mr. Chong is the author of "Managing a Chinese Partner" (published by Palgrave Macmillan) and a contributor of China articles to reputable publications. Mr. Chong received his bachelor's degree of accountancy from National University of Singapore and his MBA degree with merit from Manchester Business School. Mr. Chong is a chartered accountant in Singapore.

*Mr. Matthew Chu Pong Fong* has served as our director since January 2020. Mr. Fong has more than 10 years of professional experience in auditing, corporate finance and financial management for both private and listed corporations. He held multiple financial leadership positions, including as a manager at a Hong Kong-based multi-strategy private investment fund, from 2015 to 2017, and the chief financial officer of Fornton Group Limited, a knitwear manufacturer, from 2011 to 2014. Mr. Fong also led teams in performing financial audit-related engagements including initial public offering and acquisition at Ernst & Young from 2007 to 2009. Mr. Fong obtained his bachelor degree in accountancy from The Hong Kong Polytechnic University in 2003 and is currently a fellow member of the Association of Chartered Certified Accountants.

*Mr. Dylan Huang* has served as our director since December 2017. Mr. Huang has served as senior vice president of Meituan-Dianping since 2017. Mr. Huang served as the corporate vice president, group chief technology officer and general manager at Tencent Online Media Group from 2008 to 2017, leading its media's mobile initiative. He was the senior lead program manager, program manager, software design engineer and software design engineer in test at Microsoft Corporation from 2001 to 2008. Mr. Huang received his bachelor's degree in electrical engineering from Zhejiang University and his MBA degree from Washington Business School.

*Ms. Honnus Cheung* has served as our director since December 2017. She is currently the chief strategy officer and co-founder of Mojodomo Group (Hong Kong, Taiwan and Singapore) and the founder of Twenty 20 Limited. She worked as Travelzoo's chief financial officer in Asia and founding executive from 2007 to 2017. From October 2017 to July 2019, Ms. Cheung also served as general manager of Travelzoo China in addition to her role of CFO at Travelzoo Asia. Ms. Cheung is the founding executive of Travelzoo Asia and she established the company's finance, e-commerce and operational infrastructure. Ms. Cheung is a founding member of Yahoo Asia, and she served as regional finance director from 1999 to 2007. Prior to Travelzoo and Yahoo, Ms. Cheung held various senior management roles at American Standard and PricewaterhouseCoopers. Ms. Cheung received her bachelor's degree in commerce from the University of Queensland and her MBA from Northwestern University. Ms. Cheung is a fellow member of the Hong Kong Institution of Certified Public Accountants of Hong Kong (FCPA), the Certified Practising Accountants of Australia (FCPA), and the Hong Kong Institute of Directors (FHKIoD).

*Mr. James Kim* has served as our director since June 2018. Mr. Kim is currently the chairman and CEO of American Chamber of Commerce in Korea since July 2017, the largest foreign chamber with more than 800 member companies and affiliates with diverse interests and substantial participation in the Korean economy. Previously, Mr. Kim served as the chairman and CEO of GM Korea. Prior to that, Mr. Kim served as the country manager and CEO of Microsoft Korea from 2009 to 2015. Prior to joining Microsoft, Mr. Kim served as regional vice president and CEO of Korean Operations at Yahoo from 2005 to 2009. Mr. Kim received an MBA from Harvard Business School and a BA in Economics from UCLA.

*Mr. Terence Li* has served as our director since July 2019 and our chief financial officer since January 1, 2019 and has served as our head of finance since 2018. Mr. Li has approximately 18 years of experience in financial management, investment, and business operations. Prior to joining us, Mr. Li served in management roles and advisory capacities at several start-ups, in addition to financial management and fundraising roles. Mr. Li was a Vice President with our Series A investor, Sumitomo Corporation Equity Asia, and served on our board of directors between 2009 and 2013. Mr. Li also worked at PricewaterhouseCoopers, specializing in M&A due diligence and cross border tax and deal structuring projects. Mr. Li received his bachelor's degree in accounting from the HK Polytechnic University and an MBA with Distinction and Dean's List honors from Oxford University's Saïd Business School. Mr. Li is a Fellow Member of ACCA, a Member of HKICPA, and a Chartered Financial Analyst.

#### **Employment Agreements and Indemnification Agreements with Executive Officers**

We have entered into employment agreements with each of our executive officers.

#### ***Term and Termination***

Pursuant to these agreements, we will be entitled to terminate a senior executive officer's employment for cause at any time without remuneration for certain act of dishonesty, serious misconduct or any other act that justifies immediate dismissal of the officer, or if that officer is precluded by law from performing his duty as an officer. We may also terminate a senior executive officer's employment by giving three months' prior written notice or three months' salary if the senior executive officer is not qualified for his position after we provide relevant training to him. A senior executive officer may terminate his or her employment at any time by giving three months' prior written notice.

#### ***Confidentiality; IP***

Each executive officer has agreed to hold, both during and after the termination or expiry of his or her employment agreement, in strict confidence and not to use, except as required in the performance of his or her duties in connection with the employment or pursuant to applicable law, any of our confidential information, including but not limited to, trade secrets, any information concerning the process, system, data, financials, dealings or other confidential business information. The executive officers have also agreed that all intellectual property rights which they conceive, develop, write or otherwise created in the course of their employment, whether during or outside normal working hours, will be vested solely in us, and the officers will, at our request and expense, execute such assignments and assurances as may be reasonably necessary to perfect our ownership of those rights.

### ***Non-Competition and Non-Solicitation***

In addition, each executive officer has agreed to be bound by non-competition and non-solicitation restrictions during the term of his or her employment and typically for six months following the last date of employment, unless otherwise agreed. Specifically, during such term each executive officer has agreed not to (i) directly or indirectly engage or involve in any business which is in competition with us; (ii) directly or indirectly canvass or solicit from our clients any goods or services similar to ours; and (iii) entice, endeavor to entice, persuade or procure away any of our employees.

### ***Indemnification Agreements***

We have entered into indemnification agreements with each of our directors and executive officers. Under these agreements, we agree to indemnify our directors and executive officers against certain liabilities and expenses incurred by them in connection with claims made by reason of their being a director or officer of our company.

### **B. Compensation of Directors and Executive Officers**

For the year ended December 31, 2019 we paid an aggregate of approximately US\$0.8 million in cash to our executive officers, and we paid an aggregate of approximately US\$0.2 million to our non-executive directors. Subject to the requirements under the applicable laws, we have not set aside or accrued any amount to provide pension, retirement or other similar benefits to our executive officers and directors. Our PRC subsidiaries and variable interest entity are required by law to make contributions based on the insurance scales set forth by the local government for employees' pension insurance, medical insurance, unemployment insurance and other statutory benefits and a housing provident fund. Our Hong Kong subsidiaries are required by the Hong Kong Mandatory Provident Fund Schemes Ordinance to make monthly contributions to the mandatory provident fund scheme in an amount equal to at least 5% of an employee's salary.

### ***Share Incentive Plans***

#### ***2018 Plan***

Under the 2018 Plan, the maximum number of ordinary shares that may be issued to the beneficiaries is 2,398,137, which have been issued to Arda as trustee to the beneficiaries of the 2018 Plan. As of March 31, 2020, options to purchase 632,055 ordinary shares are outstanding, including unvested options to purchase 6,728 ordinary shares, and vested and unexercised options to purchase 625,327 ordinary shares.

The following paragraphs describe the principal terms of the 2018 Plan.

***Type of Awards.*** The 2018 Plan permits the award of options to purchase our ordinary shares.

***Trustee.*** Mr. Wing Hong Sammy Hsieh through Arda upon trust serves as the trustee to the beneficiaries of the 2018 Plan. Upon a grantee's exercise of any options awarded under the 2010 Plan, the trustee shall hold the resulting ordinary shares until a public offering of our ordinary shares on a stock exchange or if our board of directors decides to transfer the ordinary shares to the grantee, and until either of such transfer events, the trustee shall pay cash or other dividend payments on these ordinary shares to the grantee. The trustee shall only deal with the trust properties in such manner as our board of directors from time to time directs in writing.

***Award Agreement.*** Any award granted under the 2018 Plan is evidenced by an award agreement that sets forth terms, conditions and limitations on such award, which may include the number of options awarded, the exercise price, the vesting schedule, the provisions applicable in the event of the grantee's employment or service terminates, among others. We may amend or delete the terms of any award from time to time, provided that no such amendment shall impair the rights and benefits of any participant without his or her consent.

***Eligibility.*** We may grant awards to employees of our company or any of our subsidiaries.

**Vesting Schedule.** Unless otherwise stated in respective grants, subject to forfeiture and arrangement on termination of employment or service, 25% of the share options shall be vested at the one-year anniversary of the grant date and 1/36 of the remaining 75% of the shares options shall be vested per month thereafter. In the event a take-over offer is made to our ordinary shares, we will use our best endeavors to procure that such take-over offer be extended to any ordinary shares that may be allotted pursuant to the exercise of unexercised share options.

**Exercise of Options.** Vested options will become exercisable during the first five business days of January, April, July and October until the termination date of the 2018 Plan, subject to other terms and conditions provided in the relevant award agreements. Once all the preconditions are met, a participant may exercise options in whole or in part by giving written notice of exercise to us specifying information such as the number of shares to be purchased.

**Transfer Restrictions.** The participant will not be permitted to transfer, assign, dispose of, or create or purport to create any encumbrances over any option. In principle, all options shall be exercisable only by the participants. Any such transfer, assignment, disposal or encumbrance or purported encumbrance shall result in the automatic cancellation of the option.

**Termination and amendment of the 2018 Plan.** Our board of directors may amend or discontinue the 2018 Plan, provided that such amendment or termination shall not impair the rights of a participant under any award without such participant's consent.

The following table summarizes, as of March 31, 2020, the outstanding options granted under the 2018 Plan to our directors, executive officers and other grantees.

Name	Ordinary Shares Underlying Outstanding Options	Exercise Price (US\$/Share)	Grant Date	Expiration Date
Jian Tang	*	0.2687—4.0304	August 1, 2015	August 1, 2025
Other grantees	632,005	0.0100—20.0000	April 1, 2011 to July 1, 2017	April 1, 2020 to April 1, 2027

\* Less than 1% of our total outstanding ordinary shares.

#### 2017 and 2018 Performance-Based Incentive Shares

In December 2016, our board of directors and shareholders authorized the issuance of 1,068,114 ordinary shares to Mr. Jian Tang and certain other employees in China upon the fulfillment of certain performance conditions in 2017, and the issuance of 801,086 ordinary shares to Mr. Jian Tang and certain other employees in China upon the fulfillment of certain performance conditions in 2018.

Since the performance conditions were not fulfilled in 2017 and 2018, the 1,068,114 and 801,086 ordinary shares were not issued to Mr. Jian Tang and certain other employees.

#### Post-IPO Plan

Under our Post-IPO Plan, previously named as 2017 Share Incentive Plan, which became effective in December 2017, directors and consultants and promote the success of our business. On September 22, 2018, our board of directors approved an increase of 1,500,000 Class A ordinary shares to the award pool under the Post-IPO Plan. As a result, the maximum number of ordinary shares which may be issued pursuant to all awards under the Post-IPO Plan shall initially be 2,500,000 Class A ordinary shares, plus an annual increase on the first day of each of our fiscal year during the term of the Post-IPO Plan commencing with the fiscal year beginning January 1, 2018, by an amount equal to the least of (i) 0.5% of the total number of Class A ordinary shares issued and outstanding on the last day of the immediately preceding fiscal year; (ii) 150,000 Class A ordinary shares or (iii) such number of Class A ordinary shares as may be determined by our board of directors. All of such shares will be Class A ordinary shares. As of the date hereof, the award pool under the Post-IPO Plan is 2,841,374 Class A ordinary shares. As of March 31, 2020, 902,735 Class A ordinary shares are outstanding under our Post-IPO Plan, representing the shares underlying the unvested 902,735 restricted Class A ordinary shares units.

The following paragraphs describe the principal terms of the Post-IPO Plan.

**Types of Awards.** The Post-IPO Plan permits the awards of options, restricted shares and restricted share units.

**Plan Administration.** Our board of directors or a committee of one or more members of the board of directors will administer the Post-IPO Plan. The committee or the full board of directors, as applicable, will determine the participants to receive awards, the type and number of awards to be granted to each participant, and the terms and conditions of each award grant.

**Award Agreement.** Awards granted under the Post-IPO Plan are evidenced by an award agreement that sets forth terms, conditions and limitations for each award, which may include the term of the award, the provisions applicable in the event of the grantee's employment or service terminates, and our authority to unilaterally or bilaterally amend, modify, suspend, cancel or rescind the award.

**Eligibility.** We may grant awards to our employees, directors and consultants of our company. However, we may grant options that are intended to qualify as incentive share options only to our employees and employees of our parent companies and subsidiaries.

**Vesting Schedule.** In general, the plan administrator determines the vesting schedule, which is specified in the relevant award agreement.

**Exercise of Options.** The plan administrator determines the exercise price for each award, which is stated in the award agreement. The vested portion of option will expire if not exercised prior to the time as the plan administrator determines at the time of its grant. However, the maximum exercisable term is ten years from the date of a grant.

**Transfer Restrictions.** Awards may not be transferred in any manner by the recipient other than by will or the laws of descent and distribution, except as otherwise provided by the plan administrator.

**Termination and amendment of the Post-IPO Plan.** Unless terminated earlier, the Post-IPO Plan has a term of ten years. Our board of directors has the authority to amend or terminate the plan subject to shareholder approval to the extent necessary to comply with applicable law. Shareholder approval is required for any amendment to the Post-IPO Plan that (i) increases the number of shares available under the Post-IPO Plan, or (ii) permits the plan administrator to extend the term of the Post-IPO Plan or the exercise period for an option beyond ten years from the date of grant.

#### C. Board Practices

Our board of directors consists of eight directors, including executive directors and non-executive directors. Pursuant to our ninth amended and restated memorandum and articles of association, the size of our board of directors shall be limited to nine. Please refer to "Item 3. Key Information—D. Risk Factors—Risks Related to Our American Depositary Shares—As a company incorporated in the Cayman Islands, we will adopt certain home country practices in relation to corporate governance matters that differ significantly from the NASDAQ corporate governance requirements; these practices may afford less protection to shareholders than they would enjoy if we complied fully with the NASDAQ corporate governance requirements." The powers and duties of our directors include convening general meetings and reporting our board's work at our shareholders' meetings, declaring dividends and distributions, determining our business and investment plans, appointing officers and determining the term of office of the officers, preparing our annual financial budgets and financial reports, formulating proposals for the increase or reduction of our authorized capital as well as exercising other powers, functions and duties as conferred by our articles of association. Our directors may exercise all the powers of our company to borrow money, mortgage its business, property and uncalled capital and issue debentures or other securities whenever money is borrowed or as security for any obligation of our company or of any third party. None of our non-executive directors has a service contract with us that provides for benefits upon termination of service.

A director may vote in respect of any contract or proposed contract or arrangement notwithstanding that he may be interested therein and if he does so his vote shall be counted and he may be counted in the quorum at any meeting of the directors at which any such contract or proposed contract or arrangement is considered. A director who is in any way, whether directly or indirectly, interested in a contract or proposed contract with us is required to declare the nature of his interest at a meeting of our directors. A general notice given to the directors by any director to the effect that he is a member, shareholder, director, partner, officer or employee of any specified company or firm and is to be regarded as interested in any contract or transaction with that company or firm shall be deemed a sufficient declaration of interest for the purposes of voting on a resolution in respect to a contract or transaction in which he has an interest, and after such general notice it shall not be necessary to give special notice relating to any particular transaction.

## Committees of the Board of Directors

We are a foreign private issuer (as such term is defined in Rule 3b-4 under the Exchange Act), and our ADSs are listed on the NASDAQ Global Market. Under Section 5615 of the NASDAQ Stock Market Rules, NASDAQ-listed companies that are foreign private issuers are permitted to follow home country practice in lieu of the corporate governance provisions specified by NASDAQ with limited exceptions. Please refer to “Item 3. Key Information—D. Risk Factors—Risks Related to Our American Depositary Shares—As a company incorporated in the Cayman Islands, we will adopt certain home country practices in relation to corporate governance matters that differ significantly from the NASDAQ corporate governance requirements; these practices may afford less protection to shareholders than they would enjoy if we complied fully with the NASDAQ corporate governance requirements.” We have established an audit committee, a compensation committee, and a nominating and corporate governance committee under the board of directors. We have adopted a charter for each of the three committees. Each committee’s members and functions are described below.

**Audit Committee** Our audit committee consists of Matthew Chu Pong Fong, Honnus Cheung, Lub Bun Chong, and Dylan Huang, and is chaired by Matthew Chu Pong Fong. Honnus Cheung, Lub Bun Chong, Matthew Chu Pong Fong and Dylan Huang each satisfy the “independence” requirements of the Rule 5605(a)(2) of the Listing Rules of the NASDAQ Stock Market and meet the independence standards under Rule 10A-3 under the Exchange Act. We have determined that Honnus Cheung qualifies as an “audit committee financial expert.” The audit committee oversees our accounting and financial reporting processes and the audits of the financial statements of our company. The audit committee is responsible for, among other things:

- selecting the independent registered public accounting firm and pre-screening all auditing and non-auditing services permitted to be performed by the independent registered public accounting firm;
- reviewing with the independent registered public accounting firm any audit problems or difficulties and management’s response;
- reviewing and approving all proposed related party transactions, as defined in Item 404 of Regulation S-K under the Securities Act;
- discussing the annual audited financial statements with management and the independent registered public accounting firm;
- reviewing major issues as to the adequacy of our internal controls and any special audit steps adopted in light of material control deficiencies;
- annually reviewing and reassessing the adequacy of our audit committee charter;
- meeting separately and periodically with management and the independent registered public accounting firm; and
- reporting regularly to the board of directors.

**Compensation Committee** Our compensation committee consists of Dylan Huang, Wing Hong Sammy Hsieh and Jian Tang, and is chaired by Dylan Huang. Dylan Huang satisfies the “independence” requirements of the Listing Rules of the NASDAQ Stock Market. The compensation committee will assist the board in reviewing and approving the compensation structure, including all forms of compensation, relating to our directors and executive officers. Our chief executive officer may not be present at any committee meeting during which his compensation is deliberated upon. The compensation committee is responsible for, among other things:

- reviewing the total compensation package for our executive officers and making recommendations to the board with respect to it;
- reviewing the compensation of our directors and making recommendations to the board with respect to it; and
- periodically reviewing and approving any long-term incentive compensation or equity plans, programs or similar arrangements, annual bonuses, and employee pension and welfare benefit plans.

***Nominating and Corporate Governance Committee*** Our nominating and corporate governance committee consists of Honnus Cheung, Wing Hong Sammy Hsieh and Jian Tang, and is chaired by Honnus Cheung. Honnus Cheung satisfies the “independence” requirements of the Listing Rules of the NASDAQ Stock Market. The nominating and corporate governance committee will assist the board in selecting individuals qualified to become our directors and in determining the composition of the board and its committees. The nominating and corporate governance committee will be responsible for, among other things:

- recommending nominees to the board for election or re-election to the board, or for appointment to fill any vacancy on the board;
- reviewing annually with the board the current composition of the board with regards to characteristics such as independence, age, skills, experience and availability of service to us; and
- monitoring compliance with our code of business conduct and ethics, including reviewing the adequacy and effectiveness of our procedures to ensure proper compliance.

#### **Duties of Directors**

Under Cayman Islands law, our directors have a common law duty to act honestly in good faith with a view to our best interests and for a proper purpose. Our directors also have a duty to exercise the skill they actually possess with the care and diligence that a reasonably prudent person would exercise in comparable circumstances. In fulfilling their duty of care to us, our directors must ensure compliance with our memorandum and articles of association. We have the right to seek damages if a duty owed by our directors is breached. In limited exceptional circumstances, a shareholder may have the right to seek damages in our name if a duty owed by our directors is breached.

Our board of directors has all the powers necessary for managing, and for directing and supervising, our business affairs. The functions and powers of our board of directors include, among others:

- convening general meetings and reporting our board’s work at our shareholders’ meetings;
- declaring dividends and distributions;
- determining our business and investment plans;
- appointing officers and determining the term of office of the officers;
- preparing our annual financial budgets and financial reports;
- formulating proposals for the increase or reduction of our authorized capital; and
- exercising other powers, functions and duties as conferred by our articles of association.

Our directors may exercise all the powers of our company to borrow money, mortgage its business, property and uncalled capital and issue debentures or other securities whenever money is borrowed or as security for any obligation of our company or of any third party.

#### **Terms of Directors and Officers**

Pursuant to our ninth amended and restated memorandum and articles of association, our board of directors shall have the power from time to time and at any time to appoint any person as a director to fill a casual vacancy on the board or as an addition to the existing board (subject to the maximum size limit). Any director so appointed by the board shall hold office only until the next following annual general meeting and shall then be eligible for re-election. Our directors will not be subject to a term of office and will hold their offices until such time as they are removed from office by an ordinary resolution of our shareholders with or without cause, or by the board of directors for cause. “Cause” shall mean a conviction for a criminal offence involving dishonesty or engaging in conduct which brings the director or us into disrepute or which results in material financial detriment to the us. In addition, the office of any of our directors shall be vacated if the director (a) resigns his office by notice in writing to our company; (b) becomes of unsound mind or dies; (c) without special leave of absence from our board of directors, is absent from meetings of the board for six consecutive months and the board of directors resolves that his office be vacates; (d) becomes bankrupt or has a receiving order made against him or suspends payment or compounds with his creditors; (e) is prohibited by law from being a director; or (f) ceases to be a director by virtue of any provision of the Statutes or is removed from office pursuant to our memorandum and articles of association.

Pursuant to our ninth amended and restated memorandum and articles of association, any removal or appointment of chairman of the board is subject to shareholder approval by ordinary resolution.

D. Employees

**Employees**

As of December 31, 2017, 2018 and 2019 we had a total of 448, 508 and 884 employees, respectively. The table below provides a breakdown of our employees by function as of December 31, 2019:

	<u>Number of employees</u>	<u>% of Total</u>
Product, technology and data engineering	340	38.4
Sales, business development and account management	432	48.9
General and administrative	112	12.7
Total	<u>884</u>	<u>100.0</u>

As of December 31, 2019, we had a total of 884 employees, increased by 74% from 508 as of the end of December 31, 2018. The increase primarily resulted from the increase in headcount for product, technology and data engineering function, as we acquire new subsidiaries and continuously expand and develop our mobile marketing solutions business and enterprise solutions business.

We enter into standard labor contracts and confidentiality agreements with our management and employees. Our success depends on our ability to attract, retain and motivate qualified personnel. We believe we offer our employees competitive compensation packages and an environment that encourages initiative and self-development. We provide specific training to new employees at orientation to familiarize them with our working environment and operational procedures. We also design and implement in-house training programs tailored to each job function and set of responsibilities to enhance performance. As a result, we have generally been able to attract and retain qualified personnel and maintain a stable core management team.

In addition to salaries and benefits, we provide commission-based compensation for our sales force and performance-based bonuses for other employees. We also allow many of our employees to participate in share-based incentive plans to align their interests more closely with those of our shareholders. As required by regulations in China, we participate in various employee social security plans that are administered by municipal and provincial governments, including housing, pension, medical insurance and unemployment insurance plans. We are required under PRC law to make contributions to employee benefit plans at specified percentages of the salaries, bonuses and certain allowances of our employees, up to a maximum amount specified by the local governments from time to time.

We believe that our working environment and the support and benefits provided to our employees have contributed to maintaining good working relationships with our employees. None of our employees are represented by labor unions.

E. Share Ownership

The following table sets forth information with respect to the beneficial ownership of our ordinary shares as of March 31, 2020 by:

- each of our directors and executive officers; and
- each person known to us to own beneficially more than 5% of our total outstanding shares.

As of March 31, 2020, there were 38,456,637 ordinary shares outstanding, par value \$0.001 per share, being the sum of 33,636,029 Class A ordinary shares and 4,820,608 Class B ordinary shares. The calculations in the table below are based on 36,879,844 ordinary shares outstanding as of March 31, 2020, comprising (i) 32,059,236 Class A ordinary shares, excluding (x) the 1,436,668 Class A ordinary shares held by Arda Holdings Limited underlying the options granted but not yet exercised (whether or not they are vested) and the options reserved for issuance under our 2018 Plan, and (y) the 140,125 Class A ordinary shares held by JPMorgan Chase Bank N.A., our depository, underlying the unvested restricted Class A ordinary shares units under our Post-IPO Plan, and (ii) 4,820,608 Class B ordinary shares outstanding.

Beneficial ownership is determined in accordance with the rules and regulations of the SEC. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, we have included shares that the person has the right to acquire within 60 days as of March 31, 2020, including through the exercise of any option, warrant or other right or the conversion of any other security. These shares, however, are not included in the computation of the percentage ownership of any other person.

	Ordinary Shares Beneficially Owned				
	Class A Ordinary Shares Number	Class B Ordinary Shares Number	Total Ordinary Shares		Aggregate Voting Power % † †
			Number	% †	
<b>Directors and Executive Officers:</b>					
Wing Hong Sammy Hsieh <sup>(1)</sup>	40,834	2,500,580	2,541,414	6.9%	39.0%
Jian Tang <sup>(2)</sup>	97,909	2,320,028	2,417,937	6.6%	36.2%
Lub Bun Chong	—	—	—	—	—
Matthew Chu Pong Fong	—	—	—	—	—
Dylan Huang	(i)	—	(i)	(i)	(i)
Honnus Cheung	(i)	—	(i)	(i)	(i)
James Kim	(i)	—	(i)	(i)	(i)
Terence Li	(i)	—	(i)	(i)	(i)
All directors and executive officers as a group	195,743	4,820,608	5,016,351	13.6%	75.2%
<b>Principal Shareholders:</b>					
Bertelsmann China Holding GmbH and its affiliate <sup>(3)</sup>	2,826,871	—	2,826,871	7.7%	2.2%
Blue Focus International Limited <sup>(4)</sup>	2,454,088	—	2,454,088	6.7%	1.9%
Sumitomo Corporation Equity Asia Limited <sup>(5)</sup>	1,774,888	—	1,774,888	4.8%	1.4%
Bubinga Holdings Limited <sup>(1)</sup>	—	2,500,580	2,500,580	6.8%	38.9%
Czerny Holdings Limited and Cervetto Holdings Limited <sup>(6)</sup>	2,260,584	—	2,260,584	6.1%	1.8%
Igomax Inc. <sup>(7)</sup>	69,996	2,320,028	2,390,024	6.5%	36.2%
Integrated Asset Management (Asia) Ltd. <sup>(8)</sup>	2,585,258	—	2,585,258	7.0%	2.0%
Marine Central Limited <sup>(9)</sup>	2,564,103	—	2,564,103	7.0%	2.0%
Creative Big Limited <sup>(10)</sup>	3,589,744	—	3,589,744	9.7%	2.8%

(i) Less than 1% of our total outstanding shares.

† For each person and group included in this column, percentage ownership is calculated by dividing the number of ordinary shares beneficially owned by such person or group, including shares that such person or group has the right to acquire within 60 days of March 31, 2020, by the sum of (1) 36,879,844, which is the total number of ordinary shares outstanding as of March 31, 2020; and (2) the number of ordinary shares that such person or group has the right to acquire within 60 days of March 31, 2020.

†† For each person and group included in this column, percentage of voting power is calculated by dividing the voting power beneficially owned by such person or group by the voting power of all of our Class A and Class B ordinary shares as a single class. Each holder of Class A ordinary shares is entitled to one vote per share and each holder of our Class B ordinary shares is entitled to 20 votes per share on all matters submitted to them for a vote. Our Class A ordinary shares and Class B ordinary shares vote together as a single class on all matters submitted to a vote of our shareholders, except as may otherwise be required by law. Our Class B ordinary shares are convertible at any time by the holder thereof into Class A ordinary shares on a one-for-one basis.

(1) Represents (a) 2,500,580 Class B ordinary shares held by Bubinga Holdings Limited, a British Virgin Islands company wholly owned by Wing Hong Sammy Hsieh, (b) 40,834 Class A ordinary shares that Wing Hong Sammy Hsieh has the right to obtain upon conversion of certain restricted share units he holds within 60 days as of March 31, 2020. The registered office address of Bubinga Holdings Limited is Vistra Corporate Services Centre, Wickhams Cay II, Road Town, Tortola, VG1110, British Virgin Islands.

- (2) Represents (a) 2,320,028 Class B ordinary shares held by Igomax Inc., a British Virgin Islands company wholly owned by Jian Tang, (b) 27,913 Class A ordinary shares that are issuable upon exercise of options held in trust by Mr. Tang on behalf of certain consultants of OptAim, and (c) 69,996 Class A ordinary shares that Igomax Inc. has the right to obtain upon conversion of certain restricted share units it holds within 60 days as of March 31, 2020.
- (3) Represents (a) 2,234,783 Class A ordinary shares held by Bertelsmann China Holding GmbH, transferred from Bertelsmann Asia Investments AG, a former principal shareholder of our company, on November 29, 2019 and (b) 592,088 Class A ordinary shares held by BAI GmbH, as reported in the Schedule 13G filed by Bertelsmann SE & Co. KGaA, among others, on February 5, 2020. Bertelsmann China Holding GmbH and BAI GmbH are incorporated in Germany. Bertelsmann Asia Investments AG, Bertelsmann China Holding GmbH and BAI GmbH are wholly-owned subsidiaries of Bertelsmann SE & Co. KGaA.
- (4) Represents 2,454,088 Class A ordinary shares held by Blue Focus International Limited, as reported in the Schedule 13G filed by Blue Focus International Limited, among others on February 13, 2014. Blue Focus International Limited is a company incorporated in Hong Kong. Blue Focus International Limited is wholly owned by BlueFocus Intelligent Communication Group Co. Ltd., a company listed on Shenzhen Stock Exchange.
- (5) Represents 1,774,888 Class A ordinary shares held by Sumitomo Corporation Equity Asia Limited, as reported in the Schedule 13G filed by Sumitomo Corporation Equity Asia Limited on February 10, 2020. Sumitomo Corporation Equity Asia Limited is a company incorporated in Hong Kong wholly owned by Sumitomo.
- (6) Represents (a) 806,580 Class A ordinary shares held by Czerny Holdings Limited (“Czerny”) and (b) 1,454,004 Class A ordinary shares held by Cervetto Holdings Limited (“Cervetto”), as reported in the Schedule 13G filed by Czerny Holding Limited, among others, on February 14, 2020. Czerny and Cervetto are incorporated in the British Virgin Islands. Czerny is a wholly-owned subsidiary of SSG Capital Partners I Side Pocket, L.P. (“SSG I”), SSG Capital Partners I GP, L.P. (“SSG I GPLP”) is the general partner of SSG I and SSG Capital Partners I GPGP, Ltd (“SSG I GPGP”) is the general partner of SSG I GPLP. Cervetto is a wholly-owned subsidiary of SSG Capital Partners II, L.P. (“SSG II”), SSG Capital Partners II GP, L.P (“SSG II GPLP”) is the general partner of SSG II and SSG Capital Partners II GPGP, Ltd. (“SSG II GPGP”) is the general partner of SSG II GPLP. Each of SSG I GPGP and SSG II GPGP is a wholly-owned subsidiary of SSG Capital Holdings Limited (“SSG Hold Co.”). Mr. Wong Ching Him, with Mr. Shyam Maheshwari and Mr. Andreas Vourloumis, holds all voting power over SSG Hold Co and may be deemed to have shared voting control over securities owned by Czerny and Cervetto. The registered office address of Czerny and Cervetto is Vistra Corporate Services Centre, Wickhams Cay II, Road Town, Tortola, British Virgin Islands.
- (7) Represents 2,320,028 Class B ordinary shares held by Igomax Inc, a British Virgin Islands company wholly owned by Jian Tang, and (b) 14,583 Class A ordinary shares that Igomax Inc. has the right to obtain upon conversion of certain restricted share units it holds.
- (8) Represents 2,585,258 Class A ordinary shares held by Integrated Asset Management (Asia) Ltd., as reported in the Schedule 13G file by Integrated Asset Management (Asia) Ltd. on January 23, 2020. Integrated Asset Management (Asia) Ltd. is a company incorporated in the British Virgin Islands. Mr. Yam Tak Cheung is the sole shareholder and the sole director of Integrated Asset Management (Asia) Ltd. The principal business office of Integrated Asset Management (Asia) Ltd. is 21/F, 88 Gloucester Road, Wan Chai, Hong Kong.
- (9) Represents 2,564,103 Class A ordinary shares held by Marine Central Limited, as reported in the Schedule 13G filed by Marine Central Limited on March 5, 2020, which were issued upon the conversion of the entire outstanding principal amount of the mandatory convertible note due 2022 dated November 11, 2019 on February 18, 2020. Mr. Chan Tung Ngai is the majority shareholder and the sole director of Marine Central Limited, who possesses power to direct the voting and disposition of the shares beneficially owned by Marine Central Limited.
- (10) Represents 3,589,744 Class A ordinary shares held by Creative Big Limited, as reported in the Schedule 13G filed by Creative Big Limited on March 5, 2020. Creative Big Limited is a company incorporated in the British Virgin Islands. These ordinary shares were issued for acquisition of Optimal Power Limited. Mr. Kenny Sin Nang Chiu is the sole shareholder and the sole director of Creative Big Limited. The principal business office of Creative Big Limited is Flat 23B, Block 6, Hanley Villa, 22 Yau Lai Road, Yau Kom Tau, Tsuen Wan, Hong Kong S.A.R.

To our knowledge, as of March 31, 2020, 19,309,695, or 52.4% of our ordinary shares were held by one record holder in the United States, which was JPMorgan Chase Bank, N.A., the depository of our ADS program. The number of beneficial owners of our ADSs in the United States is likely to be much larger than the number of record holders of our ordinary shares in the United States.

We are not aware of any arrangement that may, at a subsequent date, result in a change of control of our company.

## ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

### A. Major Shareholders

Please refer to “Item 6. Directors, Senior Management and Employees—E. Share Ownership.”

### B. Related Party Transactions

#### **Contractual Arrangements with our Variable Interest Entity and its Shareholders**

See “Item 4. Information on the Company—C. Organizational Structure.”

#### **Shareholders Agreement**

We entered into a fourth amended and restated shareholders agreement on December 28, 2016 with our shareholders, which consist of holders of our ordinary shares, series A preferred shares, series B preferred shares, series C preferred shares, series D preferred shares and series E preferred shares.

The shareholders agreement provides for certain shareholders rights. Except for the registration rights described below, all the shareholders’ rights under the shareholders agreement automatically terminated upon completion of our initial public offering.

Set forth below is a description of the registration rights granted under the agreement.

**Demand Registration Rights.** Holders of at least 25% of the registrable securities, which include our ordinary shares issued or issuable to certain ordinary shareholders, ordinary shares issued or to be issued upon conversion of our preferred shares, ordinary shares issued as a dividend of our preferred shares, or ordinary shares owned or acquired by purchasers of our preferred shares, may, at any time, request registration of their shares and we will use our reasonable best efforts to cause such shares to be registered. We, however, are not obligated to effect a demand registration if we have already effected three demand registrations. We also have the right to defer the filing of a registration statement for up to forty-five days on any one occasion or for up to a total of ninety days during any twelve month period if our board of directors determines in good faith that the registration at such time would be materially detrimental to us and our shareholders, provided that we may not register any securities for our own account or any other person within such period other than pursuant to a registration statement relating to the sale of securities pursuant to our share incentive plan, relating to a corporate reorganization or other transaction under Rule 145 of the Securities Act, a registration on any form that does not include substantially the same information as would be required to be included in a registration statement covering the sale of the registrable securities, or a registration in which the only ordinary shares being registered are ordinary shares issuable upon conversion of debt securities that are also being registered.

**Form F-3 Registration Rights.** When we are eligible for registration on Form F-3, upon a written request from any holder of the registrable securities then outstanding, we must promptly file a registration statement on Form F-3 covering the offer and sale of the registrable securities by the requesting shareholders and other holders of registrable securities who choose to participate in the offering upon notice. We, however, are not obligated to effect more than two such Form F-3 registrations that have been declared and ordered effective within any twelve-month period.

**Piggyback Registration Rights.** If we propose to file a registration statement for a public offering for our own account or for the account of holder of equity securities, other than pursuant to a registration statement relating to the sale of securities pursuant to our share incentive plan, relating to a corporate reorganization or other transaction under Rule 145 of the Securities Act, a registration on any form that does not include substantially the same information as would be required to be included in a registration statement covering the sale of the registrable securities, or a registration in which the only ordinary shares being registered are ordinary shares issuable upon conversion of debt securities that are also being registered, then we must offer holders of our registrable securities an opportunity to include in this registration all or any part of their registrable securities.

**Underwritten Offering.** The underwriters of any underwritten offering may in good faith request a reduction in the number of shares offered by reducing the number to be satisfactory to the underwriter in the following order: (i) if the offering is our IPO, exclude from the underwritten offering all of the registrable securities (so long as the only securities included in such offering are those sold for our own account) or (ii) otherwise exclude up to twenty-five percent (25%) of the registrable securities requested to be registered but only after first excluding all other equity securities from the registration and underwritten offering and so long as the number of shares to be included in the registration on behalf of the non-excluded holders is allocated among all holders in proportion, as nearly as practicable, to the respective amounts of registrable securities requested by such holders to be included.

**Expenses of Registration.** We will pay all expenses incurred in complying with the terms of the registration rights provisions, other than the underwriting discounts and commissions applicable to the sale of registrable securities pursuant to the registration rights provisions (which shall be borne by the holders requesting registration on a pro rata basis in proportion to their respective numbers of registrable securities sold in such registration), provided that expenses for a demand or F-3 registration withdrawn at the request of a majority of holders of registrable securities shall be borne by the withdrawing shareholders unless such withdrawal is due to our action or inaction or an event outside of the reasonable control of such holders.

**Termination of Obligations.** The registration rights set forth above shall terminate on the later of (i) the date that is five years from the date of closing of a qualified initial public offering and (ii) with respect to any holder, the date on which such holder may sell all of their registrable securities under Rule 144 of the Securities Act in any ninety-day period.

### **Employment Agreements and Indemnification Agreements**

See “Item 6. Directors, Senior Management and Employees—A. Directors and Senior Management—Employment Agreements and Indemnification Agreements with Executive Officers.”

### **Share Incentive Plan**

See “Item 6. Directors, Senior Management and Employees—B. Compensation of Directors and Executive Officers—Share Incentive Plans.”

### **C. Interests of Experts and Counsel**

Not applicable.

## **ITEM 8. FINANCIAL INFORMATION**

### **A. Consolidated Statements and Other Financial Information**

We have appended consolidated financial statements filed as part of this annual report.

### **Legal and Administrative Proceedings**

Other than as disclosed in this annual report, we are not presently a party to any legal or administrative proceedings or claims that, if determined adversely to us, would individually or taken together have a material adverse effect on our business, results of operations, financial condition or cash flows. Regardless of the outcome, litigation or any other legal or administrative proceedings or claims can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

### **Dividend Policy and Dividend Distribution**

Our board of directors has discretion as to whether to distribute dividends, subject to applicable laws. In addition, our shareholders may, by ordinary resolution, declare a dividend, but no dividend may exceed the amount recommended by our directors. Under Cayman Islands law, a Cayman Islands company may pay a dividend on its shares out of either profit or share premium amount, provided that in no circumstances may a dividend be paid if this would result in the company being unable to pay its debts as they fall due in the ordinary course of business. Even if our board of directors decides to pay dividends, the form, frequency and amount will depend upon our future operations and earnings, capital requirements and surplus, general financial condition, contractual restrictions and other factors that the board of directors may deem relevant.

We have not previously declared or paid cash dividends and we do not currently plan to declare or pay any dividends in the near future on our shares or ADSs. We currently intend to retain most, if not all, of our available funds and any future earnings to operate and expand our business.

We are an exempted limited liability company, used as a holding company incorporated in the Cayman Islands. We rely principally on dividends from our PRC subsidiaries, VIE and its subsidiary for our cash requirements, including any payment of dividends to our shareholders. PRC regulations may restrict the ability of our PRC subsidiaries to pay dividends to us. See “Item 4. Information on the Company—B. Business Overview—Regulation—Regulations on Dividend Distribution.”

If we pay any dividends, we will pay our ADS holders to the same extent as holders of our ordinary shares, subject to the terms of the deposit agreement, including the fees and expenses payable thereunder. Cash dividends on our ordinary shares, if any, will be paid in U.S. dollars.

B. Significant Changes

Except as disclosed elsewhere in this annual report, we have not experienced any significant changes since the date of our audited consolidated financial statements included in this annual report.

**ITEM 9. THE OFFER AND LISTING**

A. Offering and Listing Details

Not Applicable.

B. Plan of Distribution

Not Applicable.

C. Markets

Our ADSs, two representing one Class A ordinary share, have been listed on the Nasdaq Global Market since December 21, 2017.

D. Selling Shareholders

Not Applicable.

E. Dilution

Not Applicable.

F. Expenses of the Issue

Not Applicable.

## ITEM 10.ADDITIONAL INFORMATION

### A. Share Capital

Not Applicable.

### B. Memorandum and Articles of Association

In December 2018, the shareholders of our company approved a special resolution to delete certain provisions of our articles of association which can be more efficiently dealt with through our website and with public filings, and to adopt the ninth amended and restated memorandum and articles of association reflecting such changes. The following are summaries of material provisions of our ninth amended and restated memorandum and articles of association, as well as the Companies Law (2020 Revision) insofar as they relate to the material terms of our ordinary shares.

*Objects of Our Company.* Under our post-offering amended and restated memorandum and articles of association, the objects of our company are unrestricted and we have the full power and authority to carry out any object not prohibited by the laws of the Cayman Islands.

*Ordinary Shares.* Our ordinary shares are issued in registered form and are issued when registered in our register of members. Our shareholders who are non-residents of the Cayman Islands may freely hold and vote their shares.

*Register of Members.* Under Cayman Islands law, we must keep a register of members and there should be entered therein:

- (a) the names and addresses of the members, a statement of the shares held by each member, and of the amount paid or agreed to be considered as paid, on the shares of each member;
- (b) the date on which the name of any person was entered on the register as a member; and
- (c) the date on which any person ceased to be a member.

Under Cayman Islands law, the register of members of our company is prima facie evidence of the matters set out therein (i.e. the register of members will raise a presumption of fact on the matters referred to above unless rebutted) and a member registered in the register of members should be deemed as a matter of Cayman Islands law to have legal title to the shares as set against its name in the register of members. Upon the closing of our initial public offering, the register of members should be immediately updated to record and give effect to the issue of shares by us to the Depositary (or its nominee) as the depositary. Once our register of members has been updated, the shareholders recorded in the register of members should be deemed to have legal title to the shares set against their name.

If the name of any person is incorrectly entered in or omitted from our register of members, or if there is any default or unnecessary delay in entering on the register the fact of any person having ceased to be a member of our company, the person or member aggrieved (or any member of our company or our company itself) may apply to the Cayman Islands Grand Court for an order that the register be rectified, and the Court may either refuse such application or it may, if satisfied of the justice of the case, make an order for the rectification of the register.

*Dividends.* The holders of our ordinary shares are entitled to such dividends as may be declared by our board of directors. In addition, our shareholders may by ordinary resolution declare a dividend, but no dividend may exceed the amount recommended by our directors. Under Cayman Islands law, dividends may be declared and paid only out of funds legally available therefor, namely out of either profit or our share premium account, and provided further that a dividend may not be paid if this would result in our company being unable to pay its debts as they fall due in the ordinary course of business.

*Voting Rights.* Our share capital is currently divided into Class A ordinary shares and Class B ordinary shares. On a show of hands each shareholder is entitled to one vote or, on a poll, each Class A ordinary share shall be entitled to one (1) vote on all matters subject to vote at general meetings of the Company, and each Class B ordinary share shall be entitled to twenty (20) votes on all matters subject to vote at general meetings of the Company. Unless otherwise required under the laws of the Cayman Islands, Class A ordinary shares and Class B ordinary shares shall vote together as a single class.

Voting at any meeting of shareholders is by way of a poll, unless the chairman allows a vote by show of hands on a resolution which relates purely to a procedural or administrative matter. Procedural and administrative matters are those that are not on the agenda of the general meeting and relate to the chairman's duties to maintain the orderly conduct of the meeting or allow the business of the meeting to be properly and effectively dealt with, while affording all shareholders a reasonable opportunity to express their views.

A quorum required for a meeting of shareholders consists of two shareholders entitled to vote present in person or by proxy or, if the shareholder is a legal entity, by its duly authorized representative. A majority of the board or the chairman of the board may call extraordinary general meetings, which extraordinary general meetings shall be held at such times and locations (as permitted hereby) as such person or persons shall determine. Advance notice of at least ten clear days is required for the convening of our annual general shareholders' meeting and any other general shareholders' meeting.

An ordinary resolution to be passed by the shareholders requires the affirmative vote of a simple majority of votes attached to the ordinary shares cast in a general meeting, while a special resolution requires the affirmative vote of no less than two-thirds of votes cast attached to the ordinary shares. Both ordinary resolutions and special resolutions may also be passed by unanimous written resolutions signed by all the shareholders of our company, as permitted by the Companies Law and our post-offering amended and restated memorandum and articles of association. An ordinary resolution will be required for important matters including appointment or removal of the chairman of the board of directors, or removal of any directors (other than "for cause"), etc. A special resolution will be required for fundamental matters including a change of control event, and statutory matters such as merger, a change of name, making changes to our memorandum and articles of association or other matter as required under the laws of the Cayman Islands.

Conversion. Class B ordinary shares are convertible into Class A ordinary shares. All Class B ordinary shares are subject to automatic conversion into Class A ordinary shares when the beneficial ownership of Class B ordinary shares is transferred to persons who are not an affiliate of the holders of the Class B ordinary shares. Each Class B ordinary share is generally convertible into one Class A ordinary share. However, if and when the nominal amount of one Class A ordinary share changes by reason of consolidation or sub-division, the applicable conversion rate of Class B ordinary shares into Class A ordinary shares shall equal the quotient of the revised nominal amount, divided by the former nominal amount, of one Class A ordinary share.

Transfer of Ordinary Shares. Subject to the restrictions set out below, any of our shareholders may transfer all or any of his or her ordinary shares by an instrument of transfer in the usual or common form or any other form approved by our board of directors.

Our board of directors may, in its absolute discretion, decline to register any transfer of any ordinary share which is not fully paid up or on which we have a lien. Our board of directors may also decline to register any transfer of any ordinary share unless:

- the instrument of transfer is lodged with us, accompanied by the certificate for the ordinary shares to which it relates and such other evidence as our board of directors may reasonably require to show the right of the transferor to make the transfer;
- the instrument of transfer is in respect of only one class of shares;
- the instrument of transfer is properly stamped, if required;
- in the case of a transfer to joint holders, the number of joint holders to whom the ordinary share is to be transferred does not exceed four; and
- a fee of such maximum sum as the NASDAQ may determine to be payable or such lesser sum as our directors may from time to time require is paid to us in respect thereof.

If our directors refuse to register a transfer they shall, within three months after the date on which the instrument of transfer was lodged, send to each of the transferor and the transferee notice of such refusal.

The registration of transfers may, after compliance with any notice required of the NASDAQ, be suspended and the register closed at such times and for such periods as our board of directors may from time to time determine, provided, however, that the registration of transfers shall not be suspended nor the register closed for more than 30 days in any year as our board may determine.

**Liquidation.** On a return of capital on winding up or otherwise (other than on conversion, redemption or purchase of shares), assets available for distribution among the holders of ordinary shares shall be distributed among the holders of our ordinary shares on a pro rata basis. If our assets available for distribution are insufficient to repay all of the paid-up capital, the assets will be distributed so that the losses are borne by our shareholders proportionately.

**Calls on Shares and Forfeiture of Shares.** Our board of directors may from time to time make calls upon shareholders for any amounts unpaid on their shares in a notice served to such shareholders at least 14 days prior to the specified time and place of payment. The shares that have been called upon and remain unpaid are subject to forfeiture.

**Redemption, Repurchase and Surrender of Ordinary Shares.** We may issue shares on terms that such shares are subject to redemption, at our option or at the option of the holders thereof, on such terms and in such manner as may be determined, before the issue of such shares, by our board of directors or by an ordinary resolution of our shareholders. Our company may also repurchase any of our shares provided that the manner and terms of such purchase have been approved by our board of directors or by ordinary resolution of our shareholders, or are otherwise authorized by our memorandum and articles of association. Under the Companies Law, the redemption or repurchase of any share may be paid out of our company's profits or out of the proceeds of a fresh issue of shares made for the purpose of such redemption or repurchase, or out of capital (including share premium account and capital redemption reserve) if the company can, immediately following such payment, pay its debts as they fall due in the ordinary course of business. In addition, under the Companies Law no such share may be redeemed or repurchased (a) unless it is fully paid up, (b) if such redemption or repurchase would result in there being no shares issued and outstanding, or (c) if the company has commenced liquidation. In addition, our company may accept the surrender of any fully paid share for no consideration.

**Variations of Rights of Shares.** The rights attached to any class or series of shares (unless otherwise provided by the terms of issue of the shares of that class or series) may be varied with the consent in writing of all the holders of the issued shares of that class or series or with the sanction of a special resolution passed at a separate meeting of the holders of the shares of that class or series. The rights conferred upon the holders of the shares of any class issued shall not, unless otherwise expressly provided by the terms of issue of the shares of that class, be deemed to be varied by the creation or issue of further shares ranking *pari passu* with such existing class of shares.

**Issuance of Additional Shares.** Our post-offering amended and restated memorandum and articles of association authorizes our board of directors to issue additional ordinary shares from time to time as our board of directors shall determine, to the extent of available authorized but unissued shares.

Our post-offering amended and restated memorandum and articles of association also authorizes our board of directors to establish from time to time one or more series of preferred shares and to determine, with respect to any series of preference shares, the terms and rights of that series, including:

- the designation of the series;
- the number of shares of the series;
- the dividend rights, dividend rates, conversion rights, voting rights; and
- the rights and terms of redemption and liquidation preferences.

Our board of directors may issue preferred shares without action by our shareholders to the extent authorized but unissued.

Issuance of these shares may dilute the voting power of holders of ordinary shares.

**Inspection of Books and Records.** Holders of our ordinary shares will have no general right under Cayman Islands law to inspect or obtain copies of our list of shareholders or our corporate records. However, we will provide our shareholders with annual audited financial statements.

Anti-Takeover Provisions. Some provisions of our post-offering amended and restated memorandum and articles of association may discourage, delay or prevent a change of control of our company or management that shareholders may consider favorable, including provisions that:

- authorize our board of directors to issue preference shares in one or more series and to designate the price, rights, preferences, privileges and restrictions of such preference shares without any further vote or action by our shareholders; and
- limit the ability of shareholders to requisition and convene general meetings of shareholders.

However, under Cayman Islands law, our directors may only exercise the rights and powers granted to them under our post-offering amended and restated memorandum and articles of association for a proper purpose and for what they believe in good faith to be in the best interests of our company.

General Meetings of Shareholders and Shareholder Proposals. Our shareholders' general meetings may be held in such place within or outside the Cayman Islands as our board of directors considers appropriate.

As an exempted Cayman Islands company, we are not obliged by law to call shareholders' annual general meetings. Our post-offering amended and restated memorandum and articles of association provide that we shall in each year hold a general meeting as our annual general meeting.

Shareholders' annual general meetings and any other general meetings of our shareholders may be convened by a majority of our board of directors or our chairman. Our board of directors shall give no less than ten clear days' written notice of a shareholders' meeting to those persons whose names appear as members in our register of members on the date the notice is given (or on any other date determined by our directors to be the record date for such meeting) and who are entitled to vote at the meeting.

Exempted Company. We are an exempted company with limited liability under the Companies Law. The Companies Law distinguishes between ordinary resident companies and exempted companies. Any company that is registered in the Cayman Islands but conducts business mainly outside of the Cayman Islands may apply to be registered as an exempted company. The requirements for an exempted company are essentially the same as for an ordinary company except that an exempted company:

- does not have to file an annual return of its shareholders with the Registrar of Companies;
- is not required to open its register of members for inspection;
- does not have to hold an annual general meeting;
- may issue negotiable or bearer shares or shares with no par value;
- may obtain an undertaking against the imposition of any future taxation (such undertakings are usually given for 20 years in the first instance);
- may register by way of continuation in another jurisdiction and be deregistered in the Cayman Islands;
- may register as a limited duration company; and
- may register as a segregated portfolio company.

#### C. Material Contracts

We have not entered into any material contracts other than in the ordinary course of business and other than those described in "Item 4. Information on the Company," "Item 7. Major Shareholders and Related Party Transactions—B. Related Party Transactions" and "Item 10. Additional Information—C. Material Contracts" or elsewhere in this annual report.

#### D. Exchange Controls

See "Item 4. Information on the Company—B. Business Overview—Regulation—Regulations on Foreign Exchange" and "—Regulations on Dividend Distribution."

## E. Taxation

The following summary of the material Cayman Islands, Hong Kong, the PRC and United States federal income tax consequences of an investment in our ADSs or ordinary shares is based upon laws and relevant interpretations thereof in effect as of the date of this annual report, all of which are subject to change. This summary does not deal with all possible tax consequences relating to an investment in our ADSs or ordinary shares, such as the tax consequences under United States state or local tax laws, or tax laws of jurisdictions other than the Cayman Islands, Hong Kong, the PRC and the United States.

### ***Cayman Islands Taxation***

The Cayman Islands currently levies no taxes on individuals or corporations based upon profits, income, gains or appreciation and there is no taxation in the nature of inheritance tax or estate duty. There are no other taxes likely to be material to us or our shareholders or ADS holders levied by the government of the Cayman Islands except for stamp duties which may be applicable on instruments executed in, or brought within the jurisdiction of the Cayman Islands. The Cayman Islands is not party to any double tax treaties that are applicable to any payments made to or by our company. There are no exchange control regulations or currency restrictions in the Cayman Islands.

### ***People's Republic of China Taxation***

Under the PRC Enterprise Income Tax Law and its implementation rules, an enterprise established outside of the PRC with “de facto management body” within the PRC is considered a resident enterprise. The implementation rules define the term “de facto management body” as the body that exercises full and substantial control and overall management over the business, productions, personnel, accounts and properties of an enterprise. In April 2009, the State Administration of Taxation issued a circular, known as Circular 82, which provides certain specific criteria for determining whether the “de facto management body” of a PRC-controlled enterprise that is incorporated offshore is located in China. Although this circular applies only to offshore enterprises controlled by PRC enterprises or PRC enterprise groups, not those controlled by PRC individuals or foreigners, the criteria set forth in the circular may reflect the State Administration of Taxation’s general position on how the term “de facto management body” should be applied in determining the tax resident status of all offshore enterprises. According to Circular 82, an offshore incorporated enterprise controlled by a PRC enterprise or a PRC enterprise group will be regarded as a PRC tax resident by virtue of having its “de facto management body” in China only if all of the following conditions are met: (i) the primary location of the day-to-day operational management is in the PRC; (ii) decisions relating to the enterprise’s financial and human resource matters are made or are subject to approval by organizations or personnel in the PRC; (iii) the enterprise’s primary assets, accounting books and records, company seals, and board and shareholder resolutions, are located or maintained in the PRC; and (iv) at least 50% of voting board members or senior executives habitually reside in the PRC.

We believe that iClick Interactive Asia Group Limited is not a PRC resident enterprise for PRC tax purposes. iClick Interactive Asia Group Limited is not controlled by a PRC enterprise or PRC enterprise group and we do not believe that iClick Interactive Asia Group Limited meets all of the conditions above. iClick Interactive Asia Group Limited is a company incorporated outside the PRC. As a holding company, its key assets are its ownership interests in its subsidiaries, and its key assets are located, and its records (including the resolutions of its board of directors and the resolutions of its shareholders) are maintained, outside the PRC. However, the tax resident status of an enterprise is subject to determination by the PRC tax authorities and uncertainties remain with respect to the interpretation of the term “de facto management body.”

If the PRC tax authorities determine that iClick Interactive Asia Group Limited is a PRC resident enterprise for enterprise income tax purposes, we may be required to withhold a tax at the rate of 10% (or other preferential rates in the applicable tax treaty) from dividends we pay to our shareholders that are non-resident enterprises, including the holders of our ADSs. In addition, non-resident enterprise shareholders (including our ADS holders) may be subject to a 10% PRC tax on gains realized on the sale or other disposition of ADSs or ordinary shares, if such income is treated as sourced from within the PRC. Furthermore, if we are deemed a PRC resident enterprise, dividends paid to our non-PRC individual shareholders (including our ADS holders) and any gain realized on the transfer of ADSs or ordinary shares by such shareholders may be subject to PRC tax at a rate of 20% (which in the case of dividends would be withheld at source) unless a reduced rate is available under an applicable tax treaty. It is also unclear whether non-PRC shareholders of iClick Interactive Asia Group Limited would be able to claim the benefits of any tax treaties between their country of tax residence and the PRC in the event that iClick Interactive Asia Group Limited is treated as a PRC resident enterprise.

According to the PRC Enterprise Income Tax Law, Law of the People's Republic of China on the Administration of Tax Collection promulgated on April 24, 2015, and the Announcement of the State Administration of Taxation on Matters Concerning Withholding of Income Tax of Non-resident Enterprises at Source promulgated on October 17, 2017, entities that have the direct obligation to make certain payments to a non-resident enterprise should act as withholding agents for the non-resident enterprise, and such payments include: income from equity investments (including dividends and other return on investment), interest, rents, royalties and income from assignment of property as well as other incomes subject to enterprise income tax received by non-resident enterprises in China.

### ***United States Federal Income Tax Considerations***

The following is a summary of material U.S. federal income tax considerations that are likely to be relevant to the purchase, ownership and disposition of our ordinary shares or ADSs by a U.S. Holder (as defined below).

This summary is based on provisions of the Internal Revenue Code of 1986, as amended (the "Code"), and regulations, rulings and judicial interpretations thereof, in force as of the date hereof. Those authorities may be changed at any time, perhaps retroactively, so as to result in U.S. federal income tax consequences different from those summarized below.

This summary is not a comprehensive discussion of all of the tax considerations that may be relevant to a particular investor's decision to purchase, hold, or dispose of ordinary shares or ADSs. In particular, this summary is directed only to U.S. Holders that hold ordinary shares or ADSs as capital assets and does not address all of the tax consequences to U.S. Holders who may be subject to special tax rules, such as banks, brokers or dealers in securities or currencies, traders in securities electing to mark to market, financial institutions, life insurance companies, tax exempt entities, partnerships (including any entities treated as partnerships for U.S. tax purposes) and the partners therein, holders that own or are treated as owning 10% or more of our shares (measured by voting power or value), persons holding ordinary shares or ADSs as part of a hedging or conversion transaction or a straddle, or persons whose functional currency is not the U.S. dollar. Moreover, this summary does not address state, local or non-U.S. taxes, the U.S. federal estate and gift taxes, or the Medicare contribution tax applicable to net investment income of certain non-corporate U.S. Holders, or alternative minimum tax consequences of acquiring, holding or disposing of ordinary shares or ADSs.

For purposes of this summary, a "U.S. Holder" is a beneficial owner of ordinary shares or ADSs that is a citizen or resident of the United States or a U.S. domestic corporation or that otherwise is subject to U.S. federal income taxation on a net income basis in respect of such ordinary shares or ADSs.

***You should consult your own tax advisors about the consequences of the acquisition, ownership and disposition of the ordinary shares or ADSs, including the relevance to your particular situation of the considerations discussed below and any consequences arising under non-U.S., state, local or other tax laws.***

### ***ADSs***

In general, if you are a U.S. Holder of ADSs, you will be treated, for U.S. federal income tax purposes, as the beneficial owner of the underlying ordinary shares that are represented by those ADSs.

The U.S. Treasury has expressed concerns that parties to whom ADSs are released before the underlying shares are delivered to the depository ("pre-release"), or intermediaries in the chain of ownership between holders of ADSs and the issuer of the security underlying the ADSs, may be taking actions that are inconsistent with the claiming of foreign tax credits by holders of ADSs. These actions would also be inconsistent with the claiming of the reduced rate of tax, described below, applicable to dividends received by certain non-corporate holders. Accordingly, the creditability of PRC taxes, and the availability of the reduced tax rate for dividends received by certain non-corporate U.S. Holders, each described below, could be affected by actions taken by such parties or intermediaries.

### ***Taxation of Dividends***

Subject to the discussion below under "Passive Foreign Investment Company Rules," the gross amount of any distribution of cash or property with respect to our ordinary shares or ADSs that is paid out of our current or accumulated earnings and profits (as determined for United States federal income tax purposes) will generally be includible in your taxable income as ordinary dividend income on the day on which you receive the dividend, in the case of ordinary shares, or the date the depository receives the dividends, in the case of ADSs, and will not be eligible for the dividends-received deduction allowed to U.S. corporations under the Code.

We do not expect to maintain calculations of our earnings and profits in accordance with U.S. federal income tax principles.

U.S. Holders therefore should expect that distributions generally will be treated as dividends for U.S. federal income tax purposes.

Subject to certain exceptions for short-term positions, the dividends received by an individual with respect to the ordinary shares or ADSs will be subject to taxation at a preferential rate if the dividends are “qualified dividends.” Dividends paid on the ordinary shares or ADSs will be treated as qualified dividends if:

- the ordinary shares or ADSs are readily tradable on an established securities market in the United States or we are eligible for the benefits of a comprehensive tax treaty with the United States that the U.S. Treasury determines is satisfactory for purposes of this provision and that includes an exchange of information program; and
- we were not, in the year prior to the year in which the dividend was paid, and are not, in the year in which the dividend is paid, a PFIC.

The ADSs are listed on the NASDAQ Global Market, and will qualify as readily tradable on an established securities market in the United States so long as they are so listed. Based on our audited financial statements, we believe that we were not treated as a PFIC for U.S. federal income tax purposes with respect to our 2018 and 2019 taxable years. In addition, based on our audited financial statements and our current expectations regarding the value and nature of our assets, the sources and nature of our income, and our market capitalization, we do not anticipate becoming a PFIC for our current taxable year or in the foreseeable future, as discussed under “Passive Foreign Investment Company Rules.” Holders should consult their own tax advisors regarding the availability of the reduced dividend tax rate in light of their own particular circumstances.

Because the ordinary shares are not themselves listed on a U.S. exchange, dividends received with respect to the ordinary shares that are not represented by ADSs may not be treated as qualified dividends. U.S. Holders of ordinary shares or ADSs should consult their own tax advisors regarding the potential availability of the reduced dividend tax rate on shares in the light of their own particular circumstances.

In the event that we are deemed to be a PRC resident enterprise under the PRC Enterprise Income Tax Law (see “Item 10. Additional Information—E. Taxation—People’s Republic of China Taxation”), a U.S. Holder may be subject to PRC withholding taxes on dividends paid on our ADSs or ordinary shares. In that case, we may, however, be eligible for the benefits of the Agreement Between the Government of the United States of America and the Government of the People’s Republic of China for the Avoidance of Double Taxation and the Prevention of Tax Evasion with Respect to Taxes on Income (the “Treaty”). If we are eligible for such benefits, dividends we pay on our ordinary shares, regardless of whether such shares are represented by the ADSs, would be eligible for the reduced rates of taxation described above. Dividend distributions with respect to our ordinary shares or ADSs generally will be treated as “passive category” income from sources outside the United States for purposes of determining a U.S. Holder’s U.S. foreign tax credit limitation. Subject to the limitations and conditions provided in the Code and the applicable U.S. Treasury Regulations, a Holder may be able to claim a foreign tax credit against its U.S. federal income tax liability in respect of any PRC income taxes withheld at the appropriate rate applicable to the U.S. Holder from a dividend paid to such U.S. Holder. Alternatively, the U.S. Holder may deduct such PRC income taxes from its U.S. federal taxable income, provided that the U.S. Holder elects to deduct rather than credit all foreign income taxes for the relevant taxable year. The rules with respect to foreign tax credits are complex and involve the application of rules that depend on a U.S. Holder’s particular circumstances. Accordingly, U.S. Holders are urged to consult their tax advisors regarding the availability of the foreign tax credit or the deductibility of foreign taxes under their particular circumstances.

U.S. Holders that receive distributions of additional ADSs or ordinary shares or rights to subscribe for ADSs or ordinary shares as part of a pro rata distribution to all our shareholders generally will not be subject to U.S. federal income tax in respect of the distributions.

### ***Taxation of Dispositions of ADSs or Ordinary Shares***

Subject to the discussion above under “Passive Foreign Investment Company Rules,” if a U.S. Holder realizes gain or loss on the sale, exchange or other disposition of ADSs or ordinary shares, that gain or loss will be capital gain or loss and generally will be long-term capital gain or loss if the ADS or ordinary shares have been held for more than one year. Long-term capital gain realized by a U.S. Holder that is an individual generally is subject to taxation at a preferential rate. The deductibility of capital losses is subject to limitations.

Gain, if any, realized by a U.S. Holder on the sale or other disposition of the ADSs or ordinary shares generally will be treated as U.S. source income for U.S. foreign tax credit purposes. Consequently, if a PRC withholding tax is imposed on the sale or disposition of the shares, a U.S. Holder that does not receive significant foreign source income from other sources may not be able to derive effective U.S. foreign tax credit benefits in respect of such PRC taxes. However, in the event that gain from the disposition of the ADSs or ordinary shares is subject to tax in the PRC, we may be eligible for the benefits of the Treaty, in which case, such gain may be treated as PRC source gain under Treaty. U.S. Holders should consult their own tax advisors regarding the application of the foreign tax credit rules to their investment in, and disposition of, the ADSs or ordinary shares.

Deposits and withdrawals of ordinary shares by U.S. Holders in exchange for ADSs will not result in the realization of gain or loss for U.S. federal income tax purposes.

### ***Passive Foreign Investment Company Rules***

Special U.S. tax rules apply to companies that are considered to be PFICs. We will be classified as a PFIC in a particular taxable year if either

- 75 percent or more of our gross income for the taxable year is passive income; or
- the average percentage of the value of our assets (including assets of subsidiaries in which we own at least 25 percent of the stock) that produce or are held for the production of passive income is at least 50 percent. Although the law in this regard is not entirely clear, we treat our consolidated variable interest entities as being owned by us for U.S. federal income tax purposes because we control their management decisions and are entitled to substantially all of the economic benefits associated with these entities.

We expect to derive sufficient active revenues and to have sufficient active assets, so that we will not be classified as a PFIC for the current taxable year or in the foreseeable future. However, because the PFIC tests must be applied each year, and the composition of our income and assets and value of our assets (which may be determined by reference to the market value of our ADSs) may change, and because the treatment of our VIE for U.S. federal income tax purposes is not entirely clear, it is possible that we may become a PFIC in the current or a future year. In the event that, contrary to our expectation, we are classified as a PFIC in any year and a U.S. Holder does not make a mark-to-market election, as described in the following paragraph, the holder will be subject to a special tax at ordinary income tax rates on “excess distributions,” including certain distributions by us and gain that the holder recognizes on the sale of our ordinary shares or ADSs. The amount of income tax on any excess distributions will be increased by an interest charge to compensate for tax deferral, calculated as if the excess distributions were earned ratably over the period that the U.S. Holder holds its ordinary shares or ADSs. Classification as a PFIC may also have other adverse tax consequences, including, in the case of individuals, the denial of a step-up in the basis of his or her ordinary shares or ADSs at death.

A U.S. Holder can avoid the unfavorable rules described in the preceding paragraph by electing to mark its ordinary shares or ADSs to market. If the U.S. Holder makes this mark-to-market election, the holder will be required in any year in which we are a PFIC to include as ordinary income the excess of the fair market value of the shares at year-end over the holder’s basis in those shares. In addition, any gain the U.S. Holder recognizes upon the sale of the holder’s ADSs or ordinary shares will be taxed as ordinary income in the year of sale.

A U.S. Holder that owns an equity interest in a PFIC must annually file IRS Form 8621. A failure to file one or more of these forms as required may toll the running of the statute of limitations in respect of each of the U.S. Holder’s taxable years for which such form is required to be filed. As a result, the taxable years with respect to which the U.S. Holder fails to file the form may remain open to assessment by the IRS indefinitely, until the form is filed.

U.S. Holders should consult their own tax advisors regarding the U.S. federal income tax considerations discussed above and the desirability of making a mark-to-market election.

### ***Foreign Financial Asset Reporting***

Certain U.S. Holders who are individuals that own “specified foreign financial assets” with an aggregate value in excess of US\$50,000 on the last day of the taxable year or \$75,000 at any time during the taxable year are generally required to file an information statement along with their tax returns, currently on Form 8938, with respect to such assets. “Specified foreign financial assets” include any financial accounts held at a non-U.S. financial institution, as well as securities issued by a non-U.S. issuer (which would include the ordinary shares and the ADSs) that are not held in accounts maintained by financial institutions. Higher reporting thresholds apply to certain individuals living abroad and to certain married individuals. Regulations extend this reporting requirement to certain entities that are treated as formed or availed of to hold direct or indirect interests in specified foreign financial assets based on certain objective criteria. U.S. Holders that fail to report the required information could be subject to substantial penalties. In addition, the statute of limitations for assessment of tax would be suspended, in whole or part. Prospective investors should consult their own tax advisors concerning the application of these rules to their investment in the ADSs, including the application of the rules to their particular circumstances.

### ***Backup Withholding and Information Reporting***

Dividends paid on, and proceeds from the sale or other disposition of, the ADSs or ordinary shares to a U.S. Holder generally may be subject to the information reporting requirements of the Code and may be subject to backup withholding unless the U.S. Holder provides an accurate taxpayer identification number and makes any other required certification or otherwise establishes an exemption. Backup withholding is not an additional tax. The amount of any backup withholding from a payment to a U.S. Holder will be allowed as a refund or credit against the U.S. Holder’s U.S. federal income tax liability, provided the required information is furnished to the U.S. Internal Revenue Service in a timely manner.

A holder that is a foreign corporation or a non-resident alien individual may be required to comply with certification and identification procedures in order to establish its exemption from information reporting and backup withholding.

F. Dividends and Paying Agents

Not applicable.

G. Statement by Experts

Not applicable.

H. Documents on Display

We are subject to the periodic reporting and other informational requirements of the Exchange Act. Under the Exchange Act, we are required to file reports and other information with the SEC. Specifically, we are required to file annually a Form 20-F no later than four months after the close of each fiscal year. Copies of reports and other information, when so filed, may be inspected without charge and may be obtained at prescribed rates at the public reference facilities maintained by the SEC at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. The public may obtain information regarding the Washington, D.C. Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains a web site at [www.sec.gov](http://www.sec.gov) that contains reports, proxy and information statements, and other information regarding registrants that make electronic filings with the SEC using its EDGAR system. As a foreign private issuer, we are exempt from the rules under the Exchange Act prescribing the furnishing and content of quarterly reports and proxy statements, and officers, directors and principal shareholders are exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act.

We will furnish JPMorgan Chase Bank, N.A., the depository of our ADSs, with our annual reports, which will include a review of operations and annual audited consolidated financial statements prepared in conformity with U.S. GAAP, and all notices of shareholders’ meetings and other reports and communications that are made generally available to our shareholders. The depository will make such notices, reports and communications available to holders of ADSs and, upon our request, will mail to all record holders of ADSs the information contained in any notice of a shareholders’ meeting received by the depository from us.

I. Subsidiary Information

Not applicable.

## ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

### **Inflation**

Since our inception, inflation in China has not materially impacted our results of operations. According to the National Bureau of Statistics of China, the year over year percent change in the consumer price index for 2017, 2018 and 2019 were increases of 1.6%, 2.1% and 2.9%, respectively.

### **Quantitative and Qualitative Disclosures about Market Risk**

#### ***Foreign Exchange Risk***

Foreign currency risk arises from future commercial transactions and recognized assets and liabilities. A significant portion of our revenue-generating transactions and expense-related transactions are denominated in Renminbi, which is the functional currency of our subsidiaries, VIE and its subsidiaries in China. Our commercial transactions outside China are primarily denominated in U.S. dollars and Hong Kong dollars, which are pegged to U.S. dollars. We do not hedge against currency risk.

The value of the Renminbi against the U.S. dollar and other currencies may fluctuate and is affected by, among other things, changes in political and economic conditions in China and by China's foreign exchange policies. On July 21, 2005, the PRC government changed its decade-old policy of pegging the value of the Renminbi to the U.S. dollar, and the Renminbi appreciated more than 20% against the U.S. dollar over the following three years. Between July 2008 and June 2010, this appreciation halted and the exchange rate between the Renminbi and the U.S. dollar remained within a narrow band. Since June 2010, the Renminbi has fluctuated against the U.S. dollar, at times significantly and unpredictably. On November 30, 2015, the Executive Board of the International Monetary Fund completed the regular five-year review of the basket of currencies that make up the Special Drawing Right, or the SDR, and decided that with effect from October 1, 2016, Renminbi is determined to be a freely usable currency and will be included in the SDR basket as a fifth currency, along with the U.S. dollar, the Euro, the Japanese yen and the British pound. For U.S. dollars against Renminbi, there was depreciation of approximately 6.3%, appreciation of approximately 5.7% and appreciation of approximately 5.0% in 2017, 2018 and 2019, respectively. With the development of the foreign exchange market and progress towards interest rate liberalization and Renminbi internationalization, the PRC government may in the future announce further changes to the exchange rate system. Accordingly, it is difficult to predict how market forces or PRC or U.S. government policy may impact the exchange rate between the Renminbi and the U.S. dollar in the future. In addition, the People's Bank of China may, from time to time, release policies and measures concerning the foreign exchange market to limit fluctuations in Renminbi exchange rates and for other policy considerations.

To the extent that we need to convert U.S. dollars into Renminbi for our operations, appreciation of Renminbi against the U.S. dollar would reduce the Renminbi amount we receive from the conversion. Conversely, if we decide to convert Renminbi into U.S. dollars for the purpose of making payments for dividends on our ordinary shares or ADSs, servicing our outstanding debts, or for other business purposes, appreciation of the U.S. dollar against the Renminbi would reduce the U.S. dollar amounts available to us.

As of December 31, 2019, we had Renminbi-denominated cash and cash equivalents, accounts receivable, prepaid cost and deferred revenue of RMB84.0 million, RMB981.2 million, RMB182.4 million and RMB160.7 million, respectively. We estimate that a 10% depreciation of Renminbi against the U.S. dollar based on the foreign exchange rate on December 31, 2019 would result in a change of our holding U.S. dollar equivalents of US\$(1.1) million, US\$(12.5) million, US\$(2.3) million and US\$2.0 million for cash and cash equivalents, accounts receivable, prepaid cost and deferred revenue, respectively. In addition, we estimate that a 10% depreciation of Renminbi against the U.S. dollar based on the foreign exchange rate on December 31, 2019 would result in a decrease of US\$19.6 million and US\$15.9 million in our net revenues and cost of revenues in 2019.

Certain of our operating activities are transacted in HK dollars. We consider the foreign exchange risk in relation to transactions denominated in HK dollars with respect to U.S. dollars is not significant as HK dollar is pegged to U.S. dollar.

#### ***Interest Rate Risk***

Our main interest rate exposure relates to bank borrowings. We also have interest-bearing assets, including cash and cash equivalents, short-term investments and restricted cash. We manage our interest rate exposure with a focus on reducing our overall cost of debt and exposure to changes in interest rates. 62% of the aggregate principal outstanding amount of our bank borrowings as of December 31, 2019 was at floating rates.

As of December 31, 2019, if interest rates increased/decreased by 1%, with all other variables having remained constant, and assuming the amount of bank borrowings outstanding at the end of the year was outstanding for the entire year, our net loss would have been US\$0.2 million higher/lower, respectively. These were mainly as a result of higher/lower interest expense for our bank borrowings at floating rates.

## ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

### A. Debt Securities

Not applicable.

### B. Warrants and Rights

Not applicable.

### C. Other Securities

Not applicable.

### D. American Depositary Shares

#### **Fees and Charges Our ADS Holders May Have to Pay**

The depositary may charge each person to whom ADSs are issued, including, without limitation, issuances against deposits of shares, issuances in respect of share distributions, rights and other distributions, issuances pursuant to a stock dividend or stock split declared by us or issuances pursuant to a merger, exchange of securities or any other transaction or event affecting the ADSs or deposited securities, and each person surrendering ADSs for withdrawal of deposited securities or whose ADRs are cancelled or reduced for any other reason, \$5.00 for each 100 ADSs (or any portion thereof) issued, delivered, reduced, cancelled or surrendered, as the case may be. The depositary may sell (by public or private sale) sufficient securities and property received in respect of a share distribution, rights and/or other distribution prior to such deposit to pay such charge.

The following additional charges shall be incurred by the ADR holders, by any party depositing or withdrawing shares or by any party surrendering ADSs and/or to whom ADSs are issued (including, without limitation, issuance pursuant to a stock dividend or stock split declared by us or an exchange of stock regarding the ADSs or the deposited securities or a distribution of ADSs), whichever is applicable:

- a fee of up to US\$0.05 per ADS for any cash distribution made pursuant to the deposit agreement;
- a fee of US\$1.50 per ADR or ADRs for transfers of certificated or direct registration ADRs;
- an aggregate fee of up to US\$0.05 per ADS per calendar year (or portion thereof) for services performed by the depositary in administering the ADRs (which fee may be charged on a periodic basis during each calendar year and shall be assessed against holders of ADRs as of the record date or record dates set by the depositary during each calendar year and shall be payable in the manner described in the next succeeding provision);
- a fee for the reimbursement of such fees, charges and expenses as are incurred by the depositary and/or any of its agents (including, without limitation, the custodian and expenses incurred on behalf of holders in connection with compliance with foreign exchange control regulations or any law or regulation relating to foreign investment) in connection with the servicing of the shares or other deposited securities, the sale of securities (including, without limitation, deposited securities), the delivery of deposited securities or otherwise in connection with the depositary's or its custodian's compliance with applicable law, rule or regulation (which fees and charges shall be assessed on a proportionate basis against holders as of the record date or dates set by the depositary and shall be payable at the sole discretion of the depositary by billing such holders or by deducting such charge from one or more cash dividends or other cash distributions);
- a fee for the distribution of securities (or the sale of securities in connection with a distribution), such fee being in an amount equal to the \$0.05 per ADS issuance fee for the execution and delivery of ADSs which would have been charged as a result of the deposit of such securities (treating all such securities as if they were shares) but which securities or the net cash proceeds from the sale thereof are instead distributed by the depositary to those holders entitled thereto;

- stock transfer or other taxes and other governmental charges;
- cable, telex and facsimile transmission and delivery charges incurred at your request in connection with the deposit or delivery of shares, ADRs or deposited securities;
- transfer or registration fees for the registration of transfer of deposited securities on any applicable register in connection with the deposit or withdrawal of deposited securities; and
- in connection with the conversion of foreign currency into U.S. dollars, JPMorgan Chase Bank, N.A. (“JPMorgan”) shall deduct out of such foreign currency the fees, expenses and other charges charged by it and/or its agent (which may be a division, branch or affiliate) so appointed in connection with such conversion.

JPMorgan and/or its agent may act as principal for such conversion of foreign currency.

We will pay all other charges and expenses of the depositary and any agent of the depositary (except the custodian) pursuant to agreements from time to time between us and the depositary. The charges described above may be amended from time to time by agreement between us and the depositary.

#### **Fees and Other Payments Made by the Depositary to Us**

The depositary may make available to us a set amount or a portion of the depositary fees charged in respect of the ADR program or otherwise upon such terms and conditions as we and the depositary may agree from time to time. The depositary collects its fees for issuance and cancellation of ADSs directly from investors depositing shares or surrendering ADSs for the purpose of withdrawal or from intermediaries acting for them. The depositary collects fees for making distributions to investors by deducting those fees from the amounts distributed or by selling a portion of distributable property to pay the fees. The depositary may collect its annual fee for depositary services by deduction from cash distributions, or by directly billing investors, or by charging the book-entry system accounts of participants acting for them. The depositary will generally set off the amounts owing from distributions made to holders of ADSs. If, however, no distribution exists and payment owing is not timely received by the depositary, the depositary may refuse to provide any further services to holders that have not paid those fees and expenses owing until such fees and expenses have been paid. At the discretion of the depositary, all fees and charges owing under the deposit agreement are due in advance and/or when declared owing by the depositary. For the year ended December 31, 2019, we received US\$0.2 million reimbursement, after deduction of applicable U.S. taxes, from the depositary.

## PART II

### ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES

None.

### ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS

#### A-D. Material Modifications to the Rights of Security Holders

See “Item 10. Additional Information—B. Memorandum and Articles of Association—Ordinary Shares” for a description of the rights of securities holders, which remain unchanged.

#### E. Use of Proceeds

The following “Use of Proceeds” information relates to the registration statement on Form F-1, as amended (File Number 333-221034 ) (the “F-1 Registration Statement”) in relation to our initial public offering of 3,750,000 ADSs representing 1,875,000 Class A ordinary shares, at an initial offering price of US\$8.00 per ADS. Our initial public offering closed in December 2017. Roth Capital Partners, LLC was the representative of the underwriters for our initial public offering.

For the period from December 21, 2017, the date that the Form F-1 was declared effective by the SEC, to December 31, 2019, we had used the net proceeds from our initial public offering as follows:

- approximately US\$9 million of the net proceeds for research and development and expansion of our suite of solutions and service offerings; and
- approximately US\$13 million of the net proceeds for sales and marketing.

We intend to use the remainder of the proceeds from our initial public offering, as disclosed in our registration statement on Form F-1, for (i) research and development and expansion of our suite of solutions and service offerings, and (ii) funding our working capital and other general corporate purposes.

### ITEM 15. CONTROLS AND PROCEDURES

#### **Disclosure Controls and Procedures**

Under the supervision and with the participation of our management, including our chief executive officer and our chief financial officer, we carried out an evaluation of the effectiveness of our disclosure controls and procedures, which is defined in Rules 13a-15(e) of the Exchange Act, as of December 31, 2019. Based upon that evaluation, our management, with the participation of our chief executive officer and chief financial officer, has concluded that, as of the end of the period covered by this annual report, our disclosure controls and procedures were not effective in ensuring that the information required to be disclosed by us in the reports that we file or submit under the Exchange Act was recorded, processed, summarized and reported, within the time periods specified in the SEC’s rules and forms, and that the information required to be disclosed by us in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate, to allow timely decisions regarding required disclosure.

#### **Management’s Annual Report on Internal Control Over Financial Reporting**

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act of 1934. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements in accordance with U.S. GAAP. Because of its inherent limitations, a system of internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies and procedures may deteriorate.

Our management conducted an assessment of the effectiveness of our internal control over financial reporting as of December 31, 2019. In making this assessment, it used the criteria established within the Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) (2013 framework). Based on this assessment, our management has concluded that, as of December 31, 2019, our internal control over financial reporting was not effective. We and our independent registered public accounting firm identified two material weaknesses in our internal control over financial reporting. These two material weaknesses identified relate to (1) the lack of sufficient accounting personnel with appropriate understanding of U.S. GAAP and SEC reporting requirements, and (2) the lack of a comprehensive accounting policies and procedures manual to facilitate preparation of U.S. GAAP financial statements, which inhibits our subsidiaries’ ability to prepare consolidation from local books based on PRC GAAP and Hong Kong Financial Reporting Standards to their U.S. GAAP basis information for group financial reporting and imposes a risk that adjustments to U.S. GAAP are not identified in a timely manner. To remediate these two weaknesses, we have adopted a few measures to improve our internal control over financial reporting. In particular, we are in the process of hiring additional accounting staff with an appropriate understanding of U.S. GAAP and SEC reporting requirements. Furthermore, we request our existing accounting personnel to complete external courses relating to U.S. GAAP and SEC reporting such that the accounting personnel can earn the necessary credentials to be qualified as certified public accountants in the U.S. In addition, we are also in the process of establishing a comprehensive accounting policies and procedures manual for accounting and operation staff and providing trainings in relation to these policies and procedures.

**Attestation Report of the Independent Registered Public Accounting Firm**

Since we are an “emerging growth company” as defined under the JOBS Act, our independent registered public accounting firm has not conducted an audit of our internal control over financial reporting as we are exempt from the requirement to comply with the auditor attestation requirements that our independent registered public accounting firm attest to and report on the effectiveness of our internal control structure and procedures for financial reporting.

**Changes in Internal Control over Financial Reporting**

Other than the above, there have not been any changes in our internal control over financial reporting in the year ended December 31, 2019, which have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

**ITEM 16A.AUDIT COMMITTEE FINANCIAL EXPERT**

Our board of directors has determined that Honnus Cheung, an independent director, is our audit committee financial expert. Honnus Cheung satisfies the independent requirements of the Rule 5605(c)(2) of the Listing Rules of the NASDAQ Stock Market and meet the independence standards under Rule 10A-3 under the Exchange Act.

**ITEM 16B.CODE OF ETHICS**

Our board of directors adopted a code of business conduct and ethics that applies to our directors, officers and employees. We have filed our code of business conduct and ethics as an exhibit to our registration statement on Form F-1(File No. 333-221034), as amended, initially filed with the SEC on October 20, 2017. We have posted a copy of our code of business conduct and ethics on our website at <http://ir.i-click.com>.

**ITEM 16C.PRINCIPAL ACCOUNTANT FEES AND SERVICES**

The following table sets forth the aggregate fees by categories specified below in connection with certain professional services rendered by PricewaterhouseCoopers, our independent registered public accounting firm, for the periods indicated. We did not pay any other fees to our independent registered public accounting firm during the periods indicated below.

	2018	2019
	(US\$ in thousands)	
Audit fees (1)	1,050	1,220
Tax fees (2)	14	16
Audit related fees (3)	260	242

- (1) “Audit fees” means the aggregate fees billed for professional services rendered by our principal auditors for the audit of our annual financial statements and the review of our comparative interim financial statements.
- (2) “Tax fees” include fees billed for tax compliance and tax consultations.
- (3) “Audit-related fees” represent the aggregate fees billed in each of the fiscal years listed for the assurance and related services rendered by our principal auditors that are reasonably related to the performance of the audit or review of our financial statements and not reported under “Audit fees.”

The policy of our audit committee is to pre-approve all audit and other service provided by PricewaterhouseCoopers as described above, other than those for *de minimis* services which are approved by the Audit Committee prior to the completion of the audit.

#### ITEM 16D.EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES

Not applicable.

#### ITEM 16E.PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS

The following table sets forth information about our purchases of outstanding ADSs in 2019:

Period	(a)Total Number of ADSs Purchased	(b)Average Price Paid per ADS (US\$)(1)	(c) Total Number of ADSs Purchased as Part of Publicly Announced Plans or Programs(2)	(d) Approximately Dollar Value of ADSs that May Yet be Purchased Under the Plans or Programs (in US\$ million)(2)
January 2019	—	—	—	9.96
February 2019	—	—	—	9.96
March 2019	13,240	3.7210	13,240	9.91
April 2019	—	—	—	9.91
May 2019	5,300	3.8348	5,300	9.89
June 2019	9,471	3.8113	9,471	9.86
July 2019	356,882	3.7382	356,882	8.50
August 2019	273,099	3.3297	273,099	7.58
September 2019	66,018	3.0233	66,018	7.38
October 2019	244,376	3.0684	244,376	6.63
November 2019	333,526	3.2336	333,526	5.55
December 2019	—	—	—	5.55
<b>Total</b>	<b>1,301,912</b>	<b>3.3711</b>	<b>1,301,912</b>	<b>5.55</b>

- (1) Each of our ADSs represents one Class A ordinary share. The average price per ADS is calculated using the execution price for each repurchase excluding commissions paid to brokers.
- (2) On November 28, 2018, we announced a share repurchase program in which we may purchase our own ADSs with an aggregate value of up to US\$10 million over the next 12-month period, ending November 27, 2019. On March 27, 2019, we entered into a trading plan with an authorized brokerage firm in the U.S. for the purpose of repurchasing our issued and outstanding ADSs in accordance with Rule 10b5-1 under the U.S. Securities Exchange Act of 1934, as amended, and has been established pursuant to, and as part of, the US\$10 million share buyback program that was previously authorized by our board of directors on November 28, 2018.
- (3) On January 15, 2020, we further announced a share repurchase program in which we may purchase our own ADSs with an aggregate value of up to US\$10 million over the 12-month period ending on December 29, 2020. We expect to effect the proposed share repurchase on the open market at prevailing market prices, in negotiated transactions off the market, and/or in other legally permissible means from time to time as market conditions warrant in compliance with applicable requirements of Rule 10b5-1 and/or Rule 10b-18 under the U.S. Securities Exchange Act of 1934, as amended, at times and in such amounts as we deem appropriate. The share repurchase program does not obligate us to acquire any particular number of ADSs and may be suspended, terminated or extended at any time at our discretion without prior notice.

**ITEM 16F. CHANGE IN REGISTRANT’S CERTIFYING ACCOUNTANT**

Not applicable.

**ITEM 16G. CORPORATE GOVERNANCE**

As a Cayman Islands company listed on the NASDAQ Global Market, we are subject to the NASDAQ corporate governance requirements. However, NASDAQ Global Market rules permit a foreign private issuer like us to follow the corporate governance practices of its home country. Certain corporate governance practices in the Cayman Islands, which is our home country, may differ significantly from the NASDAQ corporate governance requirements. We follow our home country practices and rely on certain exemptions provided by the Nasdaq Stock Market Rules to a foreign private issuer, including exemptions from the requirements to have:

- shareholder approval for certain events, including the establishment or amendment of certain equity based compensation plans and arrangements and certain transactions involving issuances of a 20% or more interest in our company;
- majority of independent directors on our board of directors;
- only independent directors being involved in the selection of director nominees and determination of executive officer compensation; and
- regularly scheduled executive sessions of independent directors.

As a result of our reliance on the corporate governance exemptions available to foreign private issuers, you will not have the same protection afforded to shareholders of companies that are subject to all of Nasdaq’s corporate governance requirements. See “Item 3. Key Information—D. Risk Factors—Risks Related to Our American Depositary Shares—We are a foreign private issuer within the meaning of the rules under the Exchange Act, and as such we are exempt from certain provisions applicable to U.S. domestic public companies.”

**ITEM 16H.MINE SAFETY DISCLOSURE**

Not applicable.

## PART III

### ITEM 17.FINANCIAL STATEMENTS

We have elected to provide financial statements pursuant to Item 18.

### ITEM 18.FINANCIAL STATEMENTS

See pages beginning on page F-1 in this annual report.

### ITEM 19.EXHIBITS

Exhibit Number	Description of Document
1.1	<a href="#"><u>Ninth Amended and Restated Memorandum and Articles of Association, as currently in effect (incorporated by reference to Exhibit 1.1 of our annual report on Form 20-F (file No. 001-38313) filed with the Securities and Exchange Commission on April 25, 2019)</u></a>
2.1	<a href="#"><u>Registrant's Specimen American Depositary Receipt (included in Exhibit 2.3)</u></a>
2.2	<a href="#"><u>Registrant's Specimen Certificate for Class A Ordinary Shares (incorporated by reference to Exhibit 4.2 of our Registration Statement on Form F-1 (file No. 333-221034) filed with the Securities and Exchange Commission on October 20, 2017)</u></a>
2.3	<a href="#"><u>Form of Deposit Agreement among the Registrant, the depository and holder of the American Depositary Receipts (incorporated by reference to Exhibit 4.3 of our Registration Statement on Form F-1/A (file No. 333-221034) filed with the Securities and Exchange Commission on December 1, 2017)</u></a>
2.4*	<a href="#"><u>Description of Securities</u></a>
2.5	<a href="#"><u>Fourth Amended and Restated Shareholders Agreement dated December 28, 2016 (incorporated by reference to Exhibit 10.2 of our Registration Statement on Form F-1 (file No. 333-221034) filed with the Securities and Exchange Commission on October 20, 2017)</u></a>
4.1	<a href="#"><u>English translation of Exclusive Business Cooperation Agreement between OptAim Beijing, OptAim Network and Zhiyunzhong dated January 16, 2015 (incorporated by reference to Exhibit 10.3 of our Registration Statement on Form F-1 (file No. 333-221034) filed with the Securities and Exchange Commission on October 20, 2017)</u></a>
4.2	<a href="#"><u>English translation of Second Amended and Restated Exclusive Call Option Agreement among OptAim Beijing, OptAim Network and the shareholders of OptAim Network dated May 26, 2017 (incorporated by reference to Exhibit 10.4 of our Registration Statement on Form F-1 (file No. 333-221034) filed with the Securities and Exchange Commission on October 20, 2017)</u></a>
4.3	<a href="#"><u>English translation of Second Amended and Restated Equity Pledge Agreement among OptAim Beijing, OptAim Network and the shareholders of OptAim Network dated May 26, 2017 (incorporated by reference to Exhibit 10.5 of our Registration Statement on Form F-1 (file No. 333-221034) filed with the Securities and Exchange Commission on October 20, 2017)</u></a>
4.4	<a href="#"><u>English translation of Irrevocable Powers of Attorney granted by the Jian Tang and Jie Jiao dated May 26, 2017 (incorporated by reference to Exhibit 10.6 of our Registration Statement on Form F-1 (file No. 333-221034) filed with the Securities and Exchange Commission on October 20, 2017)</u></a>
4.5	<a href="#"><u>English translation of Spousal Consents granted by Xinyu Fan dated May 26, 2017 (incorporated by reference to Exhibit 10.7 of our Registration Statement on Form F-1 (file No. 333-221034) filed with the Securities and Exchange Commission on October 20, 2017)</u></a>
4.6	<a href="#"><u>2018 Share Incentive Plan (incorporated by reference to Exhibit 10.2 of our Registration Statement on Form S-8 (file No. 333-225568) filed with the Securities and Exchange Commission on June 12, 2018)</u></a>

- 4.7 [Form of Indemnification Agreement with Executive Officers and Directors \(incorporated by reference to Exhibit 10.9 of our Registration Statement on Form F-1 \(file No. 333-221034\) filed with the Securities and Exchange Commission on October 20, 2017\).](#)
- 4.8 [Form of Employment Agreement and One Way Non-disclosure Agreement with Executive Officers \(incorporated by reference to Exhibit 10.10 of our Registration Statement on Form F-1 \(file No. 333-221034\) filed with the Securities and Exchange Commission on October 20, 2017\)](#)
- 4.9 [Post-IPO Share Incentive Plan, as amended and restated on September 22, 2018 \(incorporated by reference to Exhibit 10.1 of our Registration Statement on Form S-8 \(file No. 333-227747\) filed with the Securities and Exchange Commission on October 9, 2018\)](#)
- 8.1\* [Subsidiaries of the Registrant](#)
- 11.1 [Code of Business Conduct and Ethics of the Registrant \(incorporated by reference to Exhibit 99.1 of our Registration Statement on Form F-1 \(file No. 333-221034\) filed with the Securities and Exchange Commission on October 20, 2017\)](#)
- 12.1\* [CEO Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002](#)
- 12.2\* [CFO Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002](#)
- 13.1\*\* [CEO Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002](#)
- 13.2\*\* [CFO Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002](#)
- 15.1\* [Consent of Travers Thorp Alberga](#)
- 15.2\* [Consent of Jingtian & Gongcheng](#)
- 15.3\* [Consent of PricewaterhouseCoopers](#)
- 101.INS\* XBRL Instance Document
- 101.SCH\* XBRL Taxonomy Extension Schema Document
- 101.CAL\* XBRL Taxonomy Extension Calculation Linkbase Document
- 101.DEF\* XBRL Taxonomy Extension Definition Linkbase Document
- 101.LAB\* XBRL Taxonomy Extension Labels Linkbase Document
- 101.PRE\* XBRL Taxonomy Extension Presentation Linkbase Document
- \* Filed with this annual report on Form 20-F
- \*\* Furnished with this annual report on Form 20-F

## SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on this Form 20-F on its behalf.

### **iClick Interactive Asia Group Limited**

By: /s/ Jian Tang

Name: Jian Tang

Title: Chief Executive Officer

Date: April 30, 2020

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## Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of iClick Interactive Asia Group Limited

### ***Opinion on the Financial Statements***

We have audited the accompanying consolidated balance sheets of iClick Interactive Asia Group Limited and its subsidiaries (the “Company”) as of December 31, 2019 and 2018, and the related consolidated statements of comprehensive loss, of changes in shareholders’ (deficit)/equity and of cash flows for each of the three years in the period ended December 31, 2019, including the related notes (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019 in conformity with accounting principles generally accepted in the United States of America.

### ***Changes in Accounting Principles***

As discussed in Note 2 to the consolidated financial statements, the Company changed the manner in which it accounts for leases in 2019 and the manner in which it accounts for revenue from contracts with customers in 2018.

### ***Basis for Opinion***

These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits of these consolidated financial statements in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/PricewaterhouseCoopers  
Hong Kong  
April 30, 2020

We have served as the Company’s auditor since 2016.

**CONSOLIDATED BALANCE SHEETS**  
**AS OF DECEMBER 31, 2018 AND 2019**

(US\$'000, except share data and per share data, or otherwise noted)

	Note	As of December 31,	
		2018	2019
<b>Assets</b>			
<b>Current assets</b>			
Cash and cash equivalents	5	39,828	36,854
Time deposits	5	-	410
Restricted cash	6	-	23,852
Short-term investments	2(j)	17,427	-
Amount due from an equity investee	7(b)	-	155
Accounts receivable, net of allowance for doubtful receivables of US\$1,507 and US\$3,469 as of December 31, 2018 and 2019, respectively	9	65,627	143,971
Rebates receivable		4,067	5,603
Prepaid media costs		19,107	25,565
Other current assets	10	3,242	8,983
<b>Total current assets</b>		<u>149,298</u>	<u>245,393</u>
<b>Non-current assets</b>			
Deferred tax assets	25(e)	1,153	1,033
Property and equipment, net	11	329	536
Investment in an equity investee	7(a)	-	158
Prepayment for a long-term investment	8	-	1,000
Other long-term investments	8	503	1,503
Intangible assets, net	12	7,247	4,418
Goodwill	13	48,496	65,710
Right-of-use assets	14	-	1,656
Other assets	10	232	109
<b>Total non-current assets</b>		<u>57,960</u>	<u>76,123</u>
<b>Total assets</b>		<u><u>207,258</u></u>	<u><u>321,516</u></u>

The accompanying notes are an integral part of these consolidated financial statements.

**CONSOLIDATED BALANCE SHEETS (CONTINUED)**  
**AS OF DECEMBER 31, 2018 AND 2019**

(US\$'000, except share data and per share data, or otherwise noted)

	Note	As of December 31,	
		2018	2019
<b>Liabilities and equity</b>			
<b>Current liabilities</b>			
Accounts payable (including accounts payable of the consolidated variable interest entity ("VIE") and its subsidiaries without recourse to the Company of US\$45 and US\$27 as of December 31, 2018 and 2019, respectively)		6,557	66,161
Deferred revenue (including deferred revenue of the consolidated VIE and its subsidiaries without recourse to the Company of US\$1,300 and US\$866 as of December 31, 2018 and 2019, respectively)	15	27,191	27,089
Accrued liabilities and other current liabilities (including accrued liabilities and other current liabilities of the consolidated VIE and its subsidiaries without recourse to the Company of US\$1,776 and US\$1,802 as of December 31, 2018 and 2019, respectively)	16	16,348	19,937
Lease liabilities (including lease liabilities of the consolidated VIE and its subsidiaries without recourse to the Company of US\$nil and US\$86 as of December 31, 2018 and 2019, respectively)	14	-	1,114
Bank borrowings	17	9,439	36,851
Convertible notes at fair value	18	34,837	49,008
Income tax payable		2,779	3,780
<b>Total current liabilities</b>		<u>97,151</u>	<u>203,940</u>
<b>Non-current liabilities</b>			
Other liabilities	16	673	449
Lease liabilities (including lease liabilities of the consolidated VIE and its subsidiaries without recourse to the Company of US\$nil and US\$25 as of December 31, 2018 and 2019, respectively)	14	-	706
Deferred tax liabilities (including deferred liabilities of the consolidated VIE and its subsidiaries without recourse to the Company of US\$238 and US\$187 as of December 31, 2018 and 2019, respectively)	25(e)	2,794	1,865
<b>Total non-current liabilities</b>		<u>3,467</u>	<u>3,020</u>
<b>Total liabilities</b>		<u>100,618</u>	<u>206,960</u>
<b>Commitments and contingencies</b>	29		

The accompanying notes are an integral part of these consolidated financial statements.

iCLICK INTERACTIVE ASIA GROUP LIMITED

CONSOLIDATED BALANCE SHEETS (CONTINUED)

AS OF DECEMBER 31, 2018 AND 2019

(US\$'000, except share data and per share data, or otherwise noted)

	Note	As of December 31, 2018	2019
<b>Equity</b>			
Ordinary shares – Class A (US\$0.001 par value; 80,000,000 shares authorized as of December 31, 2018 and 2019, respectively; 23,166,092 and 23,870,027 shares issued and outstanding as of December 31, 2018 and 2019, respectively)	21	23	24
Ordinary shares – Class B (US\$0.001 par value; 20,000,000 shares authorized as of December 31, 2018 and 2019, respectively; 4,820,608 shares issued and outstanding as of December 31, 2018 and 2019, respectively)	21	5	5
Treasury shares (1,363,860 and 1,744,873 shares as of December 31, 2018 and 2019, respectively)	21	(576)	(4,858)
Additional paid-in capital		293,072	305,344
Statutory reserves		81	81
Accumulated other comprehensive losses		(5,867)	(7,479)
Accumulated deficit		(181,413)	(191,016)
Total iClick Interactive Asia Group Limited shareholders' equity		105,325	102,101
Non-controlling interests		1,315	12,455
<b>Total equity</b>		<b>106,640</b>	<b>114,556</b>
<b>Total liabilities and equity</b>		<b>207,258</b>	<b>321,516</b>

The accompanying notes are an integral part of these consolidated financial statements.

**CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS  
FOR THE YEARS ENDED DECEMBER 31, 2017, 2018 AND 2019**

(US\$'000, except share data and per share data, or otherwise noted)

	Note	For the years ended December 31,		
		2017	2018	2019
<b>Net revenues</b>		125,258	160,017	199,408
Cost of revenues		(95,733)	(120,897)	(142,703)
<b>Gross profit</b>		<u>29,525</u>	<u>39,120</u>	<u>56,705</u>
<b>Operating expenses</b>				
Research and development expenses		(5,778)	(10,737)	(5,574)
Sales and marketing expenses		(25,935)	(32,080)	(42,968)
General and administrative expenses		(12,983)	(23,757)	(20,304)
<b>Total operating expenses</b>		<u>(44,696)</u>	<u>(66,574)</u>	<u>(68,846)</u>
<b>Operating loss</b>		<u>(15,171)</u>	<u>(27,454)</u>	<u>(12,141)</u>
Interest income		-	421	537
Interest expense		(551)	(773)	(1,915)
Other gains, net	24	1,841	687	2,992
Fair value losses on derivative liabilities	19	(10,190)	-	-
Fair value (losses)/gains on convertible notes	18	-	(4,837)	133
<b>Loss before income tax expense</b>		<u>(24,071)</u>	<u>(31,956)</u>	<u>(10,394)</u>
Share of loss from an equity investee	7(a)	-	-	(408)
Income tax expense	25	(548)	(655)	(47)
<b>Net loss</b>		<u>(24,619)</u>	<u>(32,611)</u>	<u>(10,849)</u>
Net loss attributable to non-controlling interests		-	202	1,246
Net loss attributable to iClick Interactive Asia Group Limited		(24,619)	(32,409)	(9,603)
Accretion to convertible redeemable preferred shares redemption value		(1,662)	-	-
Accretion to redeemable ordinary shares redemption value		(3,650)	-	-
<b>Net loss attributable to iClick Interactive Asia Group Limited's ordinary shareholders</b>		<u>(29,931)</u>	<u>(32,409)</u>	<u>(9,603)</u>
Net loss		(24,619)	(32,611)	(10,849)
Other comprehensive loss:				
Foreign currency translation adjustment, net of US\$nil tax		(79)	(2,547)	(1,700)
<b>Comprehensive loss</b>		<u>(24,698)</u>	<u>(35,158)</u>	<u>(12,549)</u>
Comprehensive loss attributable to non-controlling interests		-	202	1,334
<b>Comprehensive loss attributable to iClick Interactive Asia Group Limited</b>		<u>(24,698)</u>	<u>(34,956)</u>	<u>(11,215)</u>
<b>Net loss per share attributable to iClick Interactive Asia Group Limited</b>				
- Basic	26	(2.15)	(1.23)	(0.34)
- Diluted	26	(2.15)	(1.23)	(0.34)
<b>Weighted average number of ordinary shares used in per share calculation:</b>				
- Basic	26	13,931,503	26,452,409	28,583,548
- Diluted	26	<u>13,931,503</u>	<u>26,452,409</u>	<u>28,583,548</u>

The accompanying notes are an integral part of these consolidated financial statements.

**CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' (DEFICIT)/EQUITY  
FOR THE YEARS ENDED DECEMBER 31, 2017, 2018 AND 2019**

(US\$'000, except share data and per share data, or otherwise noted)

	Ordinary shares		Treasury shares		Additional paid-in capital	Accumulated deficit	Statutory reserves	Accumulated other comprehensive losses	Total shareholders' (deficit)/ equity
	Number of shares	Amount	Number of shares	Amount					
<b>Balance as of December 31, 2016</b>	13,609,208	14	2,149,280	(2,468)	65,687	(124,385)	81	(3,241)	(64,312)
Reissuance of treasury shares upon exercise of employee share options	25,898	-	(25,898)	375	(315)	-	-	-	60
Share-based compensation expenses	-	-	-	-	5,072	-	-	-	5,072
Preferred shares accretion	-	-	-	-	(1,662)	-	-	-	(1,662)
Redeemable ordinary shares accretion	-	-	-	-	(3,650)	-	-	-	(3,650)
Derecognition of derivative liabilities	-	-	-	-	71,074	-	-	-	71,074
Issuance of ordinary shares upon Initial public offering ("IPO")	2,156,250	2	-	-	28,403	-	-	-	28,405
Conversion of preferred shares to Class A ordinary shares	10,268,077	10	-	-	109,685	-	-	-	109,695
Net loss for the year	-	-	-	-	-	(24,619)	-	-	(24,619)
Foreign currency translation	-	-	-	-	-	-	-	(79)	(79)
<b>Balance as of December 31, 2017</b>	<u>26,059,433</u>	<u>26</u>	<u>2,123,382</u>	<u>(2,093)</u>	<u>274,294</u>	<u>(149,004)</u>	<u>81</u>	<u>(3,320)</u>	<u>119,984</u>

The accompanying notes are an integral part of these consolidated financial statements.

## iCLICK INTERACTIVE ASIA GROUP LIMITED

**CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' (DEFICIT)/EQUITY (CONTINUED)**  
**FOR THE YEARS ENDED DECEMBER 31, 2017, 2018 AND 2019**  
(US\$'000, except share data and per share data, or otherwise noted)

	Ordinary shares		Treasury shares		Additional paid-in capital	Accumulated deficit	Statutory reserves	Accumulated other comprehensive losses	Total iClick Interactive Asia Group Limited shareholders' equity	Non-controlling interests	Total shareholders' equity
	Number of shares	Amount	Number of shares	Amount							
<b>Balance as of December 31, 2017</b>	26,059,433	26	2,123,382	(2,093)	274,294	(149,004)	81	(3,320)	119,984	-	119,984
Reissuance of treasury shares upon exercise of employee share options and vested restricted share units ("RSUs")	764,522	1	(764,522)	1,554	(900)	-	-	-	655	-	655
Share-based compensation expenses	-	-	-	-	19,679	-	-	-	19,679	-	19,679
RSUs vested	1,162,745	1	-	-	(1)	-	-	-	-	-	-
Business combination (Note 4)	-	-	-	-	-	-	-	-	-	1,517	1,517
Repurchase of ordinary shares	-	-	5,000	(37)	-	-	-	-	(37)	-	(37)
Net loss for the year	-	-	-	-	-	(32,409)	-	-	(32,409)	(202)	(32,611)
Foreign currency translation	-	-	-	-	-	-	-	(2,547)	(2,547)	-	(2,547)
<b>Balance as of December 31, 2018</b>	<u>27,986,700</u>	<u>28</u>	<u>1,363,860</u>	<u>(576)</u>	<u>293,072</u>	<u>(181,413)</u>	<u>81</u>	<u>(5,867)</u>	<u>105,325</u>	<u>1,315</u>	<u>106,640</u>

The accompanying notes are an integral part of these consolidated financial statements.

**CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' (DEFICIT)/EQUITY (CONTINUED)  
 FOR THE YEARS ENDED DECEMBER 31, 2017, 2018 AND 2019**

(US\$'000, except share data and per share data, or otherwise noted)

	Ordinary shares		Treasury shares		Additional paid-in capital	Accumulated deficit	Statutory reserves	Accumulated other comprehensive losses	Total iClick Interactive Asia Group Limited shareholders' equity	Non- controlling interests	Total shareholders' equity
	Number of shares	Amount	Number of shares	Amount							
<b>Balance as of December 31, 2018</b>	27,986,700	28	1,363,860	(576)	293,072	(181,413)	81	(5,867)	105,325	1,315	106,640
Reissuance of treasury shares upon exercise of employee share options and vested RSUs	269,943	1	(269,943)	132	182	-	-	-	315	-	315
Convertible notes transaction expenses in form of share- based awards (Note 23(d))	-	-	-	-	3,298	-	-	-	3,298	-	3,298
Share-based compensation expenses RSUs vested	-	-	-	-	2,115	-	-	-	2,115	-	2,115
Business combinations (Note 4)	-	-	-	-	-	-	-	-	-	11,815	11,815
Contribution from non- controlling interests	-	-	-	-	1,023	-	-	-	1,023	1,882	2,905
Capital injection in a subsidiary	-	-	-	-	1,223	-	-	-	1,223	(1,223)	-
Repurchase of ordinary shares	-	-	650,956	(4,414)	-	-	-	-	(4,414)	-	(4,414)
Issuance of ordinary shares upon conversion of convertible notes	410,242	-	-	-	4,431	-	-	-	4,431	-	4,431
Net loss for the year	-	-	-	-	-	(9,603)	-	-	(9,603)	(1,246)	(10,849)
Foreign currency translation	-	-	-	-	-	-	-	(1,612)	(1,612)	(88)	(1,700)
<b>Balance as of December 31, 2019</b>	<u>28,690,635</u>	<u>29</u>	<u>1,744,873</u>	<u>(4,858)</u>	<u>305,344</u>	<u>(191,016)</u>	<u>81</u>	<u>(7,479)</u>	<u>102,101</u>	<u>12,455</u>	<u>114,556</u>

The accompanying notes are an integral part of these consolidated financial statements.

**CONSOLIDATED STATEMENTS OF CASH FLOWS  
FOR THE YEARS ENDED DECEMBER 31, 2017, 2018 AND 2019**

(US\$'000, except share data and per share data, or otherwise noted)

	For the years ended December 31,		
	2017	2018	2019
<b>Cash flows from operating activities</b>			
Net loss	(24,619)	(32,611)	(10,849)
Adjustments to reconcile net loss to net cash used in operating activities			
Depreciation of property and equipment	1,363	1,059	334
Amortization of intangible assets	4,221	4,167	4,774
Amortization of right-of-use assets	-	-	1,548
Losses/(gains) on disposals of property and equipment	-	32	(2)
Gain on bargain purchase	-	(285)	-
Allowance for doubtful accounts	910	92	1,995
Accounts receivable written off	(1,134)	(15)	-
Recovery of doubtful debts previously provided for	(40)	-	-
Convertible notes transaction expenses in form of non-employee warrant award	-	-	3,298
Other convertible notes transaction expenses	-	2,190	1,258
Other share-based compensation expenses	5,072	19,679	2,115
Fair value losses on derivative liabilities	10,190	-	-
Fair value losses/(gains) on convertible notes	-	4,837	(133)
Fair value gains on short-term investments	-	-	(107)
Deferred tax	(714)	(906)	(1,083)
Share of losses from an equity investee	-	-	408
Changes in operating assets and liabilities, net			
Accounts receivable	(8,682)	(25,499)	(85,382)
Prepayments and other assets	46	4,380	(5,490)
Rebates receivables	935	(2,734)	(1,602)
Prepaid media costs	(2,491)	18,534	(6,735)
Accounts payable	(5,478)	2,693	61,318
Accrued liabilities and other current liabilities	644	(5,301)	3,862
Deferred revenue	5,750	(5,915)	722
Income tax payable	146	187	1,001
Lease liabilities	-	-	(1,389)
Amount due from an equity investee	-	-	(155)
Net cash used in operating activities	(13,881)	(15,416)	(30,294)
<b>Cash flows from investing activities</b>			
Purchase of property and equipment	(148)	(249)	(474)
Purchase of intangible assets	(17)	(120)	(232)
(Increase)/decrease in short-term investments	-	(17,427)	17,599
Investment in an equity investee	-	-	(566)
Increase in other long-term investments	-	(503)	(1,000)
Increase in prepaid long-term investment costs	-	-	(1,000)
(Increase)/decrease in time deposits	(25,000)	25,000	(410)
Acquisition of businesses, net of cash received	-	1,694	(7,171)
Proceeds from disposals of property and equipment	-	-	16
Net cash (used in)/provided by investing activities	(25,165)	8,395	6,762

The accompanying notes are an integral part of these consolidated financial statements.

**CONSOLIDATED STATEMENTS OF CASH FLOWS (CONTINUED)**  
**FOR THE YEARS ENDED DECEMBER 31, 2017, 2018 AND 2019**  
(US\$'000, except share data and per share data, or otherwise noted)

	For the years ended December 31,		
	2017	2018	2019
<b>Cash flows from financing activities</b>			
Proceeds from exercise of share options	60	656	315
Proceeds from bank borrowings	5,897	2,229	140,507
Repayments of bank borrowings	(8,816)	(2,883)	(111,986)
Net proceeds from issuance of ordinary shares upon IPO	28,405	-	-
Proceeds from issuance of convertible notes, net of transaction expenses	-	27,810	28,742
Redemption of convertible notes	-	-	(11,265)
Contribution from non-controlling interests	-	-	2,905
Repurchase of ordinary shares	-	(37)	(4,414)
<b>Net cash provided by financing activities</b>	<b>25,546</b>	<b>27,775</b>	<b>44,804</b>
<b>Net (decrease)/increase in cash and cash equivalents and restricted cash</b>	<b>(13,500)</b>	<b>20,754</b>	<b>21,272</b>
Cash and cash equivalents and restricted cash at the beginning of year	32,514	19,401	39,828
Effect on exchange rate changes on cash and cash equivalents and restricted cash	387	(327)	(394)
<b>Cash and cash equivalents and restricted cash at the end of year</b>	<b>19,401</b>	<b>39,828</b>	<b>60,706</b>
<b>Reconciliation of cash and cash equivalents and restricted cash within the consolidated balance sheets to the amounts shown in the consolidated statements of cash flows above:</b>			
Cash and cash equivalents	19,401	39,828	36,854
Restricted cash, current	-	-	23,852
	<b>19,401</b>	<b>39,828</b>	<b>60,706</b>
<b>Supplemental disclosure of cash flow information:</b>			
Interests paid	(582)	(694)	(2,109)
Cash paid for income taxes	(1,119)	(1,019)	(130)
<b>Supplemental schedule of non-cash investing and financing activities:</b>			
Accretion to Series A preferred shares redemption value	235	-	-
Accretion to Series B preferred shares redemption value	1,427	-	-
Accretion to redeemable ordinary shares redemption value	3,650	-	-
IPO costs in form of other payables	1,724	-	-
Convertible notes transaction expenses in form of share-based awards	-	-	3,298
Fair value losses/(gains) on convertible notes	-	4,837	(133)
Issuance of ordinary shares upon conversion of convertible notes	-	-	4,431

The accompanying notes are an integral part of these consolidated financial statements.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**  
(US\$'000, except share data and per share data, or otherwise noted)

**1 Organization and principal activities**

**(a) Organization and nature of operation**

iClick Interactive Asia Group Limited (the “Company”) and its subsidiaries are collectively referred to as the Group. The Company was incorporated under the law of Cayman Islands as a limited company on February 3, 2010. The Group is principally engaged in the provision of online marketing services (“Marketing Solution”). Starting from January 1, 2019, the Group also engages in the provision of software licenses and retail and customer relationship management solutions (“Enterprise Solutions”). The Group’s principal operations and geographic market are in Greater China and have offices in Hong Kong and the People’s Republic of China (“the PRC”). There are also sales teams in Singapore, Taiwan and the United Kingdom.

The accompanying consolidated financial statements include the financial statements of the Company, its principal subsidiaries and consolidated VIEs and the VIE’s subsidiaries (defined in Note 1(b)) as follows:

Name	Relationship	% of direct or indirect economic ownership	Date of incorporation	Place of incorporation/ establishment	Principal activities
Tetris Media Limited	Subsidiary	100%	July 2007	Hong Kong	Internet marketing services and solutions
iClick Interactive Asia Limited	Subsidiary	100%	December 2008	Hong Kong	Internet marketing services and solutions
China Search (Asia) Limited	Subsidiary	100%	September 2010	Hong Kong	Internet marketing services and solutions
iClick Interactive (Singapore) Pte. Ltd.	Subsidiary	100%	January 2011	Singapore	Internet marketing services and solutions
iClick Data Technology (Beijing) Limited (previously named iClick Interactive (Beijing) Advertisement Co., Ltd.)	Subsidiary	100%	January 2011	The PRC	Internet marketing services and solutions
Search Asia Technology (Shenzhen) Co., Ltd.	Subsidiary	100%	January 2011	The PRC	Internet marketing services and solutions
Performance Media Group Limited	Subsidiary	100%	January 2013	Hong Kong	Internet marketing services and solutions
Addoil Broadcasts Limited (“Addoil”)	Subsidiary	100%	June 2017	Hong Kong	Mobile content aggregator, digital advertising and marketing services
Tetris Media (Shanghai) Co., Ltd.	Subsidiary	100%	July 2013	The PRC	Internet marketing services and solutions
OptAim (Beijing) Information Technology Co., Ltd. (“OptAim WFOE”)	Subsidiary	100%	November 2014	The PRC	Internet marketing services and solutions
Anhui Zhiyunzhong Information Technology Co., Ltd. (“OptAim AH”)	Subsidiary	100%	November 2017	The PRC	Internet marketing services and solutions
Beijing OptAim Network Technology Co., Ltd. (“Beijing OptAim”)	VIE	100%	September 2012	The PRC	Internet marketing services and solutions

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

**1 Organization and principal activities (Continued)****(a) Organization and nature of operation (Continued)**

The accompanying consolidated financial statements include the financial statements of the Company, its subsidiaries and consolidated VIEs and the VIE's subsidiaries (defined in Note 1(b)) as follows: (Continued)

Name	Relationship	% of direct or indirect economic ownership	Date of incorporation	Place of incorporation/ establishment	Principal activities
Zhiyunzhong (Shanghai) Technology Co., Ltd. ("Shanghai OptAim")	VIE's subsidiary	100%	September 2014	The PRC	Internet marketing services and solutions
Shanghai Myhayo Technology Co., Ltd. ("Myhayo") (Note (i))	VIE's subsidiary	40%	May 2017	The PRC	Mobile content aggregator, digital advertising and marketing services
Anhui Myhayo Technology Co., Ltd. ("Anhui Myhayo") (Note (i),(ii))	VIE's subsidiary	36.8%	September 2018	The PRC	Mobile content aggregator, digital advertising and marketing services
Changyi (Shanghai) Information Technology Ltd. ("Changyi") (Note (i),(ii))	Subsidiary	41.46%	January 2014	The PRC	SaaS products offering
Suzhou Changyi Information Technology Ltd. ("Suzhou Changyi") (Note (i))	Subsidiary	41.46%	August 2015	The PRC	SaaS products offering
Xi'an Changzhan Information Technology Ltd. ("Xian Changyi") (Note (i))	Subsidiary	41.46%	August 2019	The PRC	SaaS products offering
Arda Holdings Limited	VIE	100%	May 2010	BVI	Treasury management

**Note:**

- (i) Although the Company owns less than 50% ownership in these entities, these entities are consolidated as the Company obtains control with its controlling voting right at the level of both shareholders and board of directors pursuant to agreements with other investors of these entities.
- (ii) The Company acquired 40% equity interest of Anhui Myhayo in November 2018 (Note 4(a)). In August 2019, there was a contribution from non-controlling interests of US\$2,905 to Anhui Myhayo whereby the Company's equity interest in Anhui Myhayo was diluted to 36.8%. The transaction did not result in a loss of the Company's control over Anhui Myhayo and was accounted for as a transaction with non-controlling interests.
- (iii) The Company acquired 34.38% equity interest of Changyi, which holds 100% equity interest of Suzhou Changyi and Xian Changyi, in January 2019 (Note 4(b)). In May 2019, the Company has injected a total cash of US\$2,217 to Changyi as paid-up capital whereby the Company's equity interest in Changyi increased to 41.46%. The transaction did not change the Company's control over Changyi and was accounted for as a transaction with non-controlling interests.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**  
(US\$'000, except share data and per share data, or otherwise noted)**1 Organization and principal activities (Continued)****(b) Consolidated VIE and VIE's subsidiaries**

When the Company acquired OptAim WFOE in July 2015, OptAim WFOE is considered as a foreign invested enterprise and any foreign ownership in advertising business was subject to certain restrictions under the PRC laws and regulations at that time. To comply with the then-effective PRC laws and regulations, certain of the Group's operations are conducted through Beijing OptAim and its subsidiaries Shanghai OptAim, Shanghai Myhayo and Anhui Myhayo (together, "OptAim VIE"). OptAim WFOE, a wholly-owned subsidiary of the Company, or a wholly foreign owned enterprise ("WFOE") of the Company, entered into a series of contractual agreements among Beijing OptAim and Beijing OptAim's legal shareholders.

OptAim VIE

The Company's relationships with Beijing OptAim and its shareholders are governed by the following contractual arrangements:

- **Cooperative Agreement**

Under the cooperative agreement between OptAim WFOE, Beijing OptAim and Shanghai OptAim, OptAim WFOE has the exclusive right to provide to Beijing OptAim and Shanghai OptAim, among others, technical consulting, technical support, business consulting, and appointment and dismissal of employees. OptAim WFOE will collect a fee from Beijing OptAim and Shanghai OptAim to be determined at the sole discretion of OptAim WFOE. The term of this agreement will not expire unless OptAim WFOE provides prior written notice to Beijing OptAim and Shanghai OptAim.

- **Purchase Option Agreement**

The parties to the purchase option agreement are OptAim WFOE, Beijing OptAim and each of the shareholders of Beijing OptAim. Under the purchase option agreement, each of the shareholders of Beijing OptAim irrevocably granted OptAim WFOE or its designated representative(s) an exclusive option to purchase, to the extent permitted under PRC law, all or part of its equity interests in Beijing OptAim. OptAim WFOE or its designated representative(s) have sole discretion as to when to exercise such options, either in part or in full. Without OptAim WFOE's prior written consent, Beijing OptAim's shareholders shall not sell, transfer, mortgage or otherwise dispose their equity interests in Beijing OptAim. The agreement will not expire until all shares of Beijing OptAim are transferred to OptAim WFOE or its designated representative(s).

- **Power of Attorney**

Pursuant to the irrevocable power of attorney executed by the shareholders of Beijing OptAim, Beijing OptAim appointed OptAim WFOE as its attorney-in-fact to exercise all shareholders' rights in Beijing OptAim, including, without limitation, the power to vote on all matters of Beijing OptAim requiring shareholder approval under PRC laws and regulations and the articles of association of Beijing OptAim. The power of attorney will remain in force until OptAim WFOE provides prior written notice to Beijing OptAim.

- **Pledge Agreement**

Pursuant to the pledge agreement between OptAim WFOE and the shareholders of Beijing OptAim, the shareholders of Beijing OptAim have pledged all of their equity interests in Beijing OptAim to OptAim WFOE to guarantee the performance by Beijing OptAim under the cooperative agreement, purchase option agreement, and powers of attorney. If Beijing OptAim and/or its shareholders breach their contractual obligations under those agreements, OptAim WFOE, as pledgee, will be entitled to certain rights, including the right to sell the pledged equity interests. Under the pledge agreement, the shareholders of Beijing OptAim are not able to provide any other guarantee by pledging the shares of Beijing OptAim, transfer or sell their pledged shares to other individual, change share capital of Beijing OptAim or transfer or sell the assets out of Beijing OptAim.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

(US\$'000, except share data and per share data, or otherwise noted)

**1 Organization and principal activities (Continued)**

**(b) Consolidated VIE and VIE's subsidiaries (Continued)**

- Pledge Agreement (Continued)

The shareholders of Beijing OptAim have completed the registration of the equity pledge with the relevant office of the Administration for Industry and Commerce in accordance with the PRC Property Rights Law on June 21, 2017.

Through the aforementioned contractual agreements, OptAim VIE is considered VIE in accordance with Generally Accepted Accounting Principles in the United States ("US GAAP") because the Company, through OptAim WFOE, has the ability to:

- exercise effective control over OptAim VIE whereby having the power to direct OptAim VIE's activities that most significantly drive the economic results of OptAim VIE;
- receive substantially all of the economic benefits and residual returns, and absorb substantially all the risks and expected losses from the OptAim VIE as if it was their sole shareholder; and
- have an exclusive option to purchase all of the equity interests in OptAim VIE.

Management evaluated the relationships among the Company, OptAim WFOE and OptAim VIE, and concluded that OptAim WFOE is the primary beneficiary of OptAim VIE. As a result, OptAim VIE's results of operations, assets and liabilities have been included in the Group's consolidated financial statements.

As of December 31, 2018 and 2019, the total assets of OptAim VIE were US\$5,706 and US\$9,733, respectively, mainly comprising cash and cash equivalents, accounts receivable, property and equipment, intangible assets, right-of-use assets and other assets. As of December 31, 2018 and 2019, the total liabilities of the OptAim VIE were US\$3,359 and US\$2,993 respectively, mainly comprising deferred revenue, accrued liabilities and other current liabilities.

In accordance with the aforementioned agreements, the Company has the power to direct activities of the OptAim VIE, and can have assets transferred out of OptAim VIE. Therefore the Company considers that there is no asset in OptAim VIE that can be used only to settle obligations of the OptAim VIE, except for registered capital and PRC statutory reserves of OptAim VIE amounting to US\$2,081 and US\$2,081, respectively, as of December 31, 2018 and 2019, respectively. As Beijing OptAim and its subsidiaries were incorporated as limited liability companies under the PRC Company Law, the creditors do not have recourse to the general credit of the Company for all the liabilities of the OptAim VIE. Currently there is no contractual arrangement that could require the Company to provide additional financial support to OptAim VIE.

As the Company is conducting its PRC online marketing services business through OptAim VIE, the Company will, if needed, provide such support on a discretion basis in the future, which could expose the Company to a loss.

There is no VIE where the Company has variable interest but is not the primary beneficiary.

The Company believes that the contractual arrangements among its shareholders and OptAim WFOE are in compliance with PRC law and are legally enforceable. However, uncertainties in the PRC legal system could limit the Company's ability to enforce these contractual arrangements and if the shareholders of OptAim VIE were to reduce their interest in the Company, their interests may diverge from that of the Company and that may potentially increase the risk that they would seek to act contrary to the contractual terms.

The Company's ability to control the OptAim VIE also depends on the power of attorney and the effect of the share pledge under the Pledge Agreement and OptAim WFOE has to vote on all matters requiring shareholder approval in OptAim VIE. As noted above, the Company believes this power of attorney is legally enforceable but may not be as effective as direct equity ownership.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

(US\$'000, except share data and per share data, or otherwise noted)

**1 Organization and principal activities (Continued)**

**(c) Initial Public Offering**

The Company completed its initial public offering (“IPO”) on December 22, 2017 on the NASDAQ Global Market and the underwriters subsequently exercised their over-allotment option on December 27, 2017. The Company issued and sold a total of 4,312,500 American Depositary Shares (“ADSs”) pursuant to these transactions. Each ADS represents 0.5 common share. The net proceeds received by the Company, after deducting commissions and offering expenses, amounted to US\$28,405. Upon the completion of the IPO, all of the Company’s outstanding preferred shares were converted into common shares immediately as of the same date.

**2 Principal accounting policies**

**(a) Basis of presentation**

The consolidated financial statements have been prepared in accordance with the US GAAP. Significant accounting policies followed by the Company in the preparation of the accompanying consolidated financial statements are summarized below.

**(b) Use of estimates**

The preparation of the Group’s consolidated financial statements in conformity with US GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ materially from such estimates.

The Group believes that revenue recognition, rebates, consolidation of VIE, determination of share-based compensation, measurement of redemption value of redeemable preferred shares and convertible notes, and impairment assessment of long-lived assets and intangible assets that reflect more significant judgments and estimates used in the preparation of its consolidated financial statements.

Management bases the estimates on historical experience and on various other assumptions as discussed elsewhere to the consolidated financial statements that are believed to be reasonable, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Actual results could materially differ from these estimates.

**(c) Consolidation**

The Group’s consolidated financial statements include the financial statements of the Company, its subsidiaries, its VIEs and a VIE’s subsidiaries for which the Company or its subsidiary is the primary beneficiary. All transactions and balances among the Company, its subsidiaries, its VIEs and a VIE’s subsidiaries have been eliminated upon consolidation.

A subsidiary is an entity in which the Company, directly or indirectly, controls more than one half of the voting powers; or has the power to appoint or remove the majority of the members of the board of directors; or to cast a majority of votes at the meeting of directors; or has the power to govern the financial and operating policies of the investee under a statute or agreement among the shareholders or equity holders.

A VIE is an entity in which the Company, or its subsidiary, through contractual agreements, bears the risks of, and enjoys the rewards normally associated with ownership of the entity. In determining whether the Company or its subsidiaries are the primary beneficiary, the Company considered whether it has the power to direct activities that are significant to the VIE’s economic performance, and also the Group’s obligation to absorb losses of the VIE that could potentially be significant to the VIE or the right to receive benefits from the VIE that could potentially be significant to the VIE. OptAim WFOE and ultimately the Company hold all the variable interests of the VIE and its subsidiaries, and has been determined to be the primary beneficiary of the VIE.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

(US\$'000, except share data and per share data, or otherwise noted)

**2 Principal accounting policies (Continued)**

**(c) Consolidation (Continued)**

Non-controlling interests are recognized to reflect the portion of their equity that is not attributable, directly or indirectly, to the Company as the controlling shareholder. Non-controlling interests in the results and equity of subsidiaries are shown separately in the consolidated statement of comprehensive loss, statement of changes in equity and balance sheet, respectively.

**(d) Foreign currency translation**

The reporting currency of the Company is the United States dollars ("US\$"). The Company is a holding company engaged in capital raising and financing activities denominated in US\$. As such, the Company's functional currency has been determined to be the US\$. The functional currency of the Company's subsidiaries is the local currency of the country in which they are domiciled.

Monetary assets and liabilities denominated in currencies other than the functional currency are translated into the functional currency at the rates of exchange existing at the balance sheet date. Transactions in currencies other than the functional currency during the year are converted into the functional currency at the applicable rates of exchange prevailing at the transaction date. Transaction gains and losses are recognized in "other gains, net". Assets and liabilities denominated in foreign currencies are translated at the exchange rates at the balance sheet date. Equity accounts are translated at historical exchange rates and revenues, expenses, gains and losses are translated using the average rate for the year. Translation adjustments are reported as cumulative translation adjustments and are shown as a separate component of other comprehensive loss in the consolidated statements of changes in shareholders' deficit/equity and comprehensive loss.

**(e) Fair value of financial instruments**

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. When available, the Company uses quoted market prices to determine the fair value of an asset or liability. If quoted market prices are not available, the Group will measure fair value using valuation techniques that use, when possible, current market-based or independently sourced market parameters, such as interest rates and currency rates. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs.

Fair value measurements are based on a fair value hierarchy, based on three levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value which are the following:

Level 1 — Quoted prices (unadjusted) in active markets for identical assets or liabilities that the Company has the ability to access at the measurement date.

Level 2 — Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly, such as quoted market prices for similar assets and liabilities; quoted prices for identical assets or liabilities in markets with insufficient volume or infrequent transactions (less active markets); or model-derived valuations in which significant inputs are observable or can be derived principally from, or corroborated by, observable market data.

Level 3 — Unobservable inputs to the valuation methodology that are significant to the measurement of the fair value of the assets or liabilities.

Observable inputs are based on market data obtained from independent sources. The Company's derivative liabilities and convertible notes are measured using unobservable inputs that require a high level of judgment to determine fair value, and thus classified as Level 3 (Note 3(c) and Note 18).

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

(US\$'000, except share data and per share data, or otherwise noted)

**2 Principal accounting policies (Continued)****(e) Fair value of financial instruments (Continued)**

The Company values its investments in wealth management products issued by a bank classified as short-term investments in the consolidated balance sheets using quoted subscription/redemption prices published by the bank, and accordingly, the Company classifies the valuation techniques that use these inputs as Level 2.

The carrying amounts of cash and cash equivalents, time deposits, restricted cash, accounts receivable, rebate receivables, accounts payable, other financial assets and liabilities approximate their fair values due to the short-term nature of these instruments. Based on the borrowing rates currently available to the Group for debt with similar terms, the carrying amounts of the short-term loans approximate their fair values (using Level 2 inputs).

The Group measures an equity investment accounted for using the equity method at fair value on a non-recurring basis only if an impairment charge were to be recognized. For the years ended December 31, 2017, 2018 and 2019, no impairments were recorded on the asset required to be measured at fair value on a non-recurring basis. Equity investments accounted for using the measurement alternative (Note 2(l)) are generally not categorized in the fair value hierarchy. However, if equity investments without readily determinable fair values were re-measured during the years ended December 31, 2017, 2018 and 2019, they were classified within Level 3 in the fair value hierarchy because the Group estimated the value of the investments based on valuation methods using the observable transaction price at the transaction date and other unobservable inputs.

**(f) Cash, cash equivalents and restricted cash**

Cash and cash equivalents include cash on hand, cash in bank and time deposits placed with banks or other financial institutions, which have original maturities of three months or less and are readily convertible to known amounts of cash.

Restricted cash represented bank deposits in accounts that are restricted as to withdrawal or usage. For restriction which is expected to be released within one year of the balance sheet date, the respective restricted cash balance is classified as current. As of December 31, 2019, the Group's restricted cash represents balance held in restricted bank accounts as required by certain loan agreements. As of December 31, 2018, the Group did not have any restricted cash.

In November 2016, the Financial Accounting Standard Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016-18, Statements of Cash Flows (Topic 230): Restricted Cash, which requires companies to include amounts generally described as restricted cash and restricted cash equivalents in cash and cash equivalents when reconciling beginning-of-period and end-of-period total amounts presented in the statement of cash flows. The Group has adopted this new guidance on January 1, 2018, using the retrospective transition method. Following the adoption of this guidance in 2018:

- Amounts generally described as restricted cash were presented with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the consolidated statements of cash flows.
- Decrease in restricted cash under net cash used in investing activities amounting to US\$5,234 for the year ended December 31, 2017 had been reclassified to net decrease in cash and cash equivalents and restricted cash in the consolidated statements of cash flows.
- No impact to the consolidated statements of cash flows for the year ended December 31, 2018 as there was no restricted cash during the year.
- The Group also added a reconciliation of cash, cash equivalents, and restricted cash to the consolidated statements of cash flows.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

(US\$'000, except share data and per share data, or otherwise noted)

**2 Principal accounting policies (Continued)****(g) Time deposits**

Time deposits represent demand deposits placed with banks with original maturities of more than three months but less than one year. Interest income is recognized using the effective interest method in the consolidated statements of comprehensive loss during the periods. Time deposits are valued based on the prevailing interest rates in the market.

**(h) Accounts receivable, net**

Accounts receivable are presented net of allowance for doubtful accounts. The Group uses specific identification in providing for bad debts when facts and circumstances indicate that collection is doubtful and based on factors listed in the following paragraph. If the financial conditions of its customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowance may be required.

The Group maintains an allowance for doubtful accounts which reflects its best estimate of amounts that potentially will not be collected. The Group determines the allowance for doubtful accounts on an individual basis taking into consideration various factors including but not limited to historical collection experience and credit-worthiness of the customers as well as the age of the individual receivables balance. Additionally, the Group makes specific bad debt provisions based on any specific knowledge the Group has acquired that might indicate that an account is uncollectible. The facts and circumstances of each account may require the Group to use substantial judgment in assessing its collectability.

**(i) Rebates receivable**

Rebates receivable represent sales rebates that have already been earned but not received from third party publishers. The Group earns its rebates from purchasing advertising spaces from these website publishers.

**(j) Short-term investments**

Short-term investments include investments in wealth management products issued by a bank in the PRC which are redeemable by the Group at any time. The wealth management products are unsecured with variable interest rates and primarily invested in debt securities issued by the PRC government, corporate debt securities and central bank bills. The Group measures the short-term investments at fair value using the quoted subscription or redemption prices published by the bank. The change in fair value recorded in the consolidated statements of comprehensive loss amounted to US\$nil, US\$25 and US\$107 for the years ended December 31, 2017, 2018 and 2019, respectively.

**(k) Investment in an equity investee**

Investment in an equity investee represents the Group's investment in a privately held company. The Group applies the equity method to account for an equity investment in common stock or in-substance common stock, according to ASC 323 "Investment — Equity Method and Joint Ventures," over which it has significant influence but does not own a majority equity interest or otherwise control.

Under the equity method, the Group initially records the investments at cost and the difference between the cost of the equity investee and the fair value of the underlying net assets of the equity investee is recognized as equity method goodwill and intangible assets acquired, which is included in the equity method investments on the consolidated balance sheets. The Group subsequently adjusts the carrying amount of the investments to recognize its (i) proportionate share of each equity investee's post-acquisition net income or loss into earnings, (ii) share of post-acquisition movements in accumulated other comprehensive income into other comprehensive income, and (iii) cash distributions from investees, after the date of investment. When the Group's share of loss in the equity investee equals or exceeds its interest in the equity investee, the Group does not recognize further loss, unless the Group has incurred obligations or made payments or guarantees on behalf of the equity investee.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

(US\$'000, except share data and per share data, or otherwise noted)

**2 Principal accounting policies (Continued)****(k) Investment in an equity investee (Continued)**

The Group evaluates its equity method investment for impairment under ASC 323-10. An impairment loss on the equity method investment is recognized in the consolidated statement of comprehensive loss when the decline in value is determined to be other-than-temporary. No impairment loss has been recorded during the years ended December 31, 2017, 2018 and 2019.

**(l) Other long-term investments**

The Group's other long-term investments as of December 31, 2018 and 2019 consist of equity securities without readily determinable fair value.

The Group adopted Accounting Standards Codification ("ASC") 321 "Investments—Equity Securities" on January 1, 2018 and is required to measure its equity investments at fair value and any changes in fair value are recognized in earnings. For equity securities without readily determinable fair value and does not qualify for the existing practical expedient in ASC 820 "Fair Value Measurements and Disclosures" ("ASC 820") to estimate fair value using the net asset value per share (or its equivalent) of the investments, the Group elected to use the measurement alternative to measure its equity investments at cost, less any impairment, plus or minus changes resulting from observable price changes in orderly transactions for identical or similar investments of the same issuer, if any.

**(m) Property and equipment, net**

Property and equipment are stated at historical cost less accumulated depreciation and impairment loss, if any. Depreciation is calculated using the straight-line method over their estimated useful lives. The estimated useful lives are as follows:

Leasehold improvements	Over the shorter of lease term or 2 – 5 years
Furniture and fixtures	2 – 5 years
Office equipment	3 – 5 years

Expenditures for maintenance and repairs are expensed as incurred. The gain or loss on the disposal of property and equipment is the difference between the net sales proceeds and the carrying amount of the relevant assets and is recognized in the consolidated statement of comprehensive loss.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

(US\$'000, except share data and per share data, or otherwise noted)

**2 Principal accounting policies (Continued)****(n) Business combinations**

The Group accounts for acquisitions of entities that include inputs and processes and have the ability to create outputs as business combinations. The Group accounts for its business combinations using the acquisition method of accounting in accordance with ASC 805 “Business Combinations” (“ASC 805”). The cost of an acquisition is measured as the aggregate of the acquisition date fair value of the assets transferred to the sellers and liabilities incurred by the Group and equity instruments issued. Transaction costs directly attributable to the acquisition are expensed as incurred. Identifiable assets and liabilities acquired or assumed are measured separately at their fair values as of the acquisition date, irrespective of the extent of any non-controlling interests. The excess of (i) the total costs of acquisition, fair value of the non-controlling interests and acquisition date fair value of any previously held equity interest in the acquiree over (ii) the fair value of the identifiable net assets of the acquiree is recorded as goodwill. If the cost of acquisition is less than the fair value of the net assets of the subsidiary acquired, the difference is recognized directly in the consolidated statements of comprehensive loss as gain on bargain purchase. During the measurement period, which can be up to one year from the acquisition date, the Group may record adjustments to the assets acquired and liabilities assumed with the corresponding offset to goodwill. Upon the conclusion of the measurement period or final determination of the values of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded to the consolidated statement of comprehensive loss.

**(o) Intangible assets, net**

Intangible assets mainly consist of computer software licenses purchased from external parties and computer software and systems acquired through the acquisitions of OptAim, Buzzinate Company Limited, Myhayo and Changyi, respectively. It also includes developed technologies, customer relationship and contract backlog acquired through the acquisition of Changyi. Identifiable intangible assets are carried at acquisition cost less accumulated amortization and impairment loss, if any. Amortization of finite lived intangible assets is computed using the straight-line method over the following estimated useful lives, which are as follows:

Computer software and systems	2 – 5 years
Developed technologies	5 years
Customer relationship	5 years
Contract backlog	3 years

**(p) Impairment of long-lived assets and intangible assets**

For other long-lived assets including property and equipment and amortizable intangible assets, the Group evaluates for impairment whenever events or changes (triggering events) indicate that the carrying amount of an asset may no longer be recoverable. The Group assesses the recoverability of the long-lived assets by comparing the carrying value of the long-lived assets to the estimated undiscounted future cash flows expected to receive from use of the assets and their eventual disposition. Such assets are considered to be impaired if the sum of the expected undiscounted cash flows is less than the carrying amount of the assets. The impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**  
(US\$'000, except share data and per share data, or otherwise noted)**2 Principal accounting policies (Continued)****(q) Impairment of goodwill**

Impairment of goodwill assessment is performed on at least an annual basis on December 31 or whenever events or changes in circumstances indicate that the carrying value of the asset may not be recoverable. According to ASC 350-20-35, an entity may assess qualitative factors to determine whether it is more likely than not (that is, a likelihood of more than 50 percent) that the fair value of a reporting unit is less than its carrying amount, including goodwill. The Group, however, selects proceed directly to perform a two-step goodwill impairment test. The first step compares the fair value of a reporting unit to its carrying amount, including goodwill. If the fair value of a reporting unit exceeds its carrying amount, goodwill is not considered impaired and the second step will not be required. If the carrying amount of a reporting unit exceeds its fair value, the second step compares the implied fair value of the affected reporting unit's goodwill to the carrying value of that goodwill. The implied fair value of goodwill is determined in a manner similar to accounting for a business combination with the allocation of the assessed fair value determined in the first step to the assets and liabilities of the reporting unit. The excess of the fair value of the reporting unit over the amounts assigned to the assets and liabilities is the implied fair value of goodwill. This allocation process is only performed for purposes of evaluating goodwill impairment and does not result in adjusting the value of any assets or liabilities. An impairment loss is recognized for any excess in the carrying value of goodwill over the implied fair value of goodwill. Application of a goodwill impairment test requires significant management judgment, including the identification of reporting units, assigning assets, liabilities and goodwill to reporting units, and determining the fair value of each reporting unit. The judgment in estimating the fair value of each reporting unit includes estimating future cash flows, determining appropriate discount rates, control premium, comparable companies' multipliers and making other assumptions. Changes in these estimates and assumptions could materially affect the determination of fair value for each reporting unit.

**(r) Adoption of ASC 842**

On January 1, 2019, the Group adopted ASC 842, which requires the recognition of the right-of-use assets ("ROU assets"), and related lease liabilities on the consolidated balance sheets using a modified retrospective approach. The consolidated financial statements related to periods prior to January 1, 2019 were not restated, and continue to be reported under ASC Topic 840—Leases ("ASC 840"), which did not require the recognition of operating lease liabilities on the consolidated balance sheets. As a result the consolidated financial statements related to periods prior to January 1, 2019 are not entirely comparative with current and future periods. As permitted under ASC 842, the Group elected several practical expedients that permit the Group to not reassess (1) whether existing contracts are or contain a lease, (2) the classification of existing leases, and (3) whether previously capitalized costs continue to qualify as initial indirect costs. In addition, the Group has elected not to recognize short-term leases on the consolidated balance sheets. In addition, the Group did not use hindsight to determine lease term.

For the identified leases, the Group used its incremental borrowing rate to discount the related future payment obligations as of January 1, 2019 to determine its lease liability as of the adoption date. As of the adoption date, the Group recognized a lease liability of US\$2,634 and a corresponding ROU asset of US\$2,634, with no equity impact from the adoption.

The Group records rent expense for operating leases, including leases of office locations and equipment, on a straight-line basis over the lease term. The Group begins recognition of rent expense on the commencement date, which is generally the date that the asset is made available for use. The lease liability is included in lease liabilities, current and lease liabilities, non-current within the consolidated balance sheets, which are reduced as lease related payments are made. The ROU asset is amortized on a periodic basis over the expected term of the lease. See Note 14 for additional information.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

(US\$'000, except share data and per share data, or otherwise noted)

**2 Principal accounting policies (Continued)****(s) Deferred revenue**

The Group receives prepayments for services in advance of service performance from certain customers. The amounts received in advance are recorded as deferred revenue and recognized as revenue in the period which the corresponding services are performed.

**(t) Derivative financial instruments**

ASC 815, "Accounting for Derivative Instruments and Hedging Activities" ("ASC 815") requires every derivative financial instrument (including certain derivative financial instruments embedded in other contracts) to be recorded on the balance sheet at fair value as either an asset or a liability. ASC 815 also requires that changes in the fair value of recorded derivatives be recognized currently in earnings unless specific hedge accounting criteria are met. The Group's derivative financial instruments included the conversion features and redemption features of the preferred shares classified as "derivative liabilities". For the year ended December 31, 2017, the Group recognized fair value losses of US\$10,190 on derivative financial instruments. There was no derivative financial instrument as of December 31, 2018 and 2019.

**(u) Convertible debts**

The Group determines the appropriate accounting treatment of its convertible debts in accordance with the terms in relation to the conversion feature, call and put option, and beneficial conversion feature ("BCF"). After considering the impact of such features, the Group may account for such instrument as a liability in its entirety, or separate the instrument into debt and equity components following the respective guidance described under ASC 815 and ASC 470 "Debt".

The conversion features of the convertible notes of the Group meets the definition of a derivative whereby no BCF shall be separately accounted for. Moreover, the Group has elected the fair value option for convertible debts accounted for as a liability in its entirety whereby the conversion features that meet the definition of a derivative are not bifurcated given that the entire debt instrument is legally a single contract therefore not to be separated into parts for purposes of applying the fair value option. Such fair value option permits the irrevocable election on an instrument-by-instrument basis at initial recognition of an asset or liability or upon an event, that gives rise to a new basis of accounting for that instrument. The convertible debts accounted for under the fair value option are carried at fair value with realized or unrealized gains and losses recorded in the consolidated statements of comprehensive loss.

Convertible debts are classified as current liabilities if they are convertible or redeemable on demand or if their due date is or will be within one year from the balance sheet date.

**(v) Treasury shares**

The Company accounted for those shares repurchased as treasury shares at cost in accordance with ASC 505-30, and the treasury shares acquired are shown separately in shareholders' equity as the Company has not yet decided on the ultimate disposition of those shares. If and when the Company cancels the treasury shares, the difference between the original issuance price and the repurchase price will be debited into additional paid-in capital.

**(w) Revenue recognition and cost of revenues**

On January 1, 2018, the Group adopted ASU 2014-09 "Revenue from Contracts with Customers (Topic 606)" and subsequent amendments to the initial guidance or implementation guidance issued between August 2015 and December 2016 within ASU 2015-14, ASU 2016-08, ASU 2016-10, ASU 2016-12 and ASU 2016-20 (collectively, "ASC 606") using a modified retrospective approach applied to contracts that were not completed as of January 1, 2018. The adoption did not have a material impact on the accumulated deficit as of January 1, 2018. Results for reporting periods beginning on or after January 1, 2018 are presented under ASC 606, while prior period amounts are not adjusted and continue to be reported in accordance with the Group's historic accounting policies under ASC 605.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

## 2 Principal accounting policies (Continued)

## (w) Revenue recognition and cost of revenues (Continued)

The following table presents our revenue recognized from contracts with customers disaggregated by the four types of pricing models:

	For the years ended		
	December 31, 2017 Under ASC 605	December 31, 2018 Under ASC 606	December 31, 2019 Under ASC 606
<b>Recognized over time</b>			
- Sales agent	8,311	8,671	6,563
- Cost-plus	10,788	12,192	17,146
- SaaS products offering	-	-	8,687
	<u>19,099</u>	<u>20,863</u>	<u>32,396</u>
<b>Recognized at point in time</b>			
- Specified actions	106,159	139,154	165,263
- SaaS products offering	-	-	1,749
	<u>106,159</u>	<u>139,154</u>	<u>167,012</u>
<b>Total</b>	<u>125,258</u>	<u>160,017</u>	<u>199,408</u>

As noted above, in accordance with the modified retrospective method upon adoption of ASC 606, prior period amounts have not been adjusted.

The Group's services are the provisions of online marketing services. The Group utilizes a combination of pricing models and revenue is recognized when the related services are delivered based on the specific terms of the contract, which are commonly based on (i) agreed incentive to be earned for being a sales agent of a publisher, (ii) cost-plus or (iii) specified actions (i.e. cost per impression ("CPM"), cost per click ("CPC"), cost per action ("CPA"), cost per sale ("CPS"), cost per lead ("CPL") or return on investment ("ROI")) and related campaign budgets, depending on the customers' preferences and their campaigns launched. Subsequent to the acquisition of Changyi and its subsidiary Suzhou Changyi (together, "Changyi Group") on January 1, 2019, the Group's services also generate revenue from the offering of SaaS products.

The Group recognizes revenue when the Group satisfies a performance obligation by transferring a promised service to a customer. The Group considers the following when determining if a contract exists under which the performance obligations have been satisfied: (i) contract approval by all parties, (ii) identification of each party's rights regarding the goods or services to be transferred, (iii) specified payment terms, (iv) commercial substance of the contract, and (v) collectability of substantially all of the consideration is probable. Collectability is assessed based on a number of factors, including the creditworthiness of a customer, the size and nature of a customer's business and transaction history. Revenues are recorded net of value-added taxes.

*Sales agent*

In the arrangement with a particular publisher, the Group acts as a sales agent for this publisher in selling marketing spaces to marketing clients. In return, the Group earns incentives from this publisher based on contractually stipulated amounts when certain spending thresholds are achieved. The Group considers this particular publisher as a customer and record such incentives as net revenues. Incentives from this publisher are calculated on both a quarterly and an annual basis in accordance with the terms as set out in the arrangement.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

## 2 Principal accounting policies (Continued)

## (w) Revenue recognition and cost of revenues (Continued)

*Sales agent (Continued)*

Revenue under this arrangement is recognized over-time given the Group considers this particular publisher simultaneously receives and consumes the benefits provided by the Group's performance as the Group performs. In other words, when the Group purchases marketing spaces on behalf of the marketing clients throughout the marketing campaigns as requested by them, this particular publisher simultaneously receives and consumes the benefit of the marketing spaces being purchased and therefore the Group is entitled to incentive payment from this publisher.

The Group grants rebates to marketing clients under the sales agent arrangement. The majority of marketing clients under this arrangement are not customers under either the cost-plus arrangement or specified actions arrangement. The Group records rebates granted to such marketing clients as reduction of revenue.

Under ASC 605, the Group recorded rebates granted to marketing clients under the sales agent arrangement as cost of revenues as (i) the Group considered these rebates were for an identifiable benefit that was separable from the marketing clients' purchase of the Group's services and (ii) the Group was able to reasonably estimate the fair value of the benefit received from granting these rebates. However, the notion of "separate identifiable benefit" under ASC 605 was not carried forward into ASC 606. ASC 606 requires the rebates granted to marketing clients under sales agent arrangement to be recorded as a reduction of revenue unless the Group is receiving a distinct good or service with the payment to the marketing clients. Given the Group cannot establish such a distinct good or service with the payment to marketing clients under the sales agent arrangement, rebates to marketing clients under this arrangement are recorded as a reduction of revenue under ASC 606. The resulting impact to the consolidated financial statements for the year ended December 31, 2018 was a decrease of US\$2,654 in net revenues, with a corresponding decrease in cost of revenues.

*Cost-plus*

For cost-plus advertisement campaigns, sales are recognized at the fair value of the amount received. Discounts granted to marketing clients under cost-plus marketing campaigns are recorded as a reduction of revenue. The determination of whether revenue should be reported on a gross or net basis is based on an assessment of whether the Group is acting as the principal or an agent in the transactions. In the normal course of business, the Group acts as an intermediary in executing transactions between website publishers and marketing clients. The specified service in the cost-plus arrangement is the provision of marketing space, which is controlled by the website publishers, rather than the Group. The Group assists the marketing clients to place orders with specific website publishers based on specification set out the marketing clients. The Group does not have the ability to direct the use of marketing space and does not have any inventory risk. Pricing is generally based on the actual advertising spending incurred by the marketing clients plus a margin. Accordingly, the Group concludes that it is not the principal in these arrangements and reports revenue earned and costs incurred related to these transactions on a net basis.

Revenue under this arrangement is recognized over-time as the Group considers its customers simultaneously receive and consume the benefits provided by the Group's performance. At the time the Group purchases marketing spaces during the contract term for its customers, the customers' advertisements could be placed throughout the marketing campaign. Revenue recognition under this arrangement is not based on an occurrence of significant act or milestone method.

Throughout the various services delivered to clients under the cost-plus arrangements, the Group earns rebates from publishers and grant rebates to marketing clients. The rebates that the Group grants to marketing clients under cost-plus arrangement are recorded as reduction of revenue and are recorded based on the amount the marketing clients would ultimately need to spend to earn the corresponding level of rebates. The Group is also able to reasonably estimate the spending the customers can ultimately achieve based on the historical spending patterns of the customers with similar arrangements. The rebates that the Group receives from publishers under the cost-plus arrangements are recorded as revenue. These rebates are recognized when a particular milestone is achieved (i.e. applying the relevant rebates based on the level of spending threshold actually achieved) and spending has actually occurred.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

(US\$'000, except share data and per share data, or otherwise noted)

**2 Principal accounting policies (Continued)****(w) Revenue recognition and cost of revenues (Continued)***Specified actions*

The Group also generates revenue from performing specified actions (i.e. a CPM, CPC, CPA, CPS, CPL or ROI basis). Revenue is recognized on a CPM or CPC basis as impressions or clicks are delivered while revenue on a CPA, CPS, CPL or ROI basis is recognized once agreed actions are performed. For the specified actions advertisement campaigns, the Group is the principal as it has the obligation to deliver successful actions requested by marketing clients. Also, the Group will only be paid if successful actions can be delivered and is exposed to risk of loss. In terms of pricing, the Group has complete latitude in establishing the selling prices of each of the CPM, CPC, CPA, CPS, CPL or ROI pricing model. The Group's margin may vary as the costs incurred to deliver successful actions may vary and is therefore exposed to risk of loss whereby validating its degree of responsibility to its customers. Although the inventory risk under specified actions arrangement is considered to be low, the Group concludes that it is the principal in such arrangement as it is the principal ultimately responsible for delivering successful actions and in charge of establishing the price per action. Accordingly, the Group reports revenue earned and costs incurred related to these transactions on a gross basis.

Revenues under this arrangement is recognized at point-in-time when the Group is able to deliver the specified actions as requested by the customers. Upon the occurrence of the specified actions, the customers take control of the specified actions and this is when the Group recognizes the corresponding revenue. Unlike the cost-plus arrangement, when the Group purchases marketing spaces in order to deliver the specified actions, the customers do not receive and consume the benefit as the benefit to be received by the customers is the occurrence of the specified actions. Also, the Group does not create or enhance an asset that the customers control as the marketing spaces ultimately belong to the publishers. The Group does not have any right to payment for simply purchasing the marketing spaces and would only be compensated upon delivery of the specified actions.

The Group also grants rebates to marketing clients under the specified actions arrangement. Same as the treatment under cost-plus arrangement, the rebates that the Group grants to marketing clients under cost-plus arrangement are recorded as reduction of revenue and are recorded based on the amount the marketing clients would ultimately need to spend to earn the corresponding level of rebates. The rebates that the Group receives from publishers under the specified actions arrangement are recorded as a reduction of cost of revenues. These rebates are recognized when a particular milestone is achieved (i.e. applying the relevant rebates based on the level of spending threshold actually achieved) and spending has actually occurred.

Cost of revenues consists of the costs to purchase space for the online marketing operations, amortization expenses related to the Group's computer software and systems, salaries and benefits of relevant operations and support personnel and depreciation of relevant property and equipment depreciation. The Group becomes obligated to make payments related to website publishers in the period the marketing impressions and click-through occur. Such expenses are classified as cost of revenues in the consolidated statements of operations as incurred. Cost of revenues also includes rebates received from website publishers which are recorded as a reduction of cost of revenues when the Group is acting as a principal in a transaction. Following recent reforms of PRC tax laws, business tax is gradually being replaced by VAT, which is recorded as a reduction of revenue.

*SaaS products offering*

Under this arrangement, the Group offers SaaS products which are cloud-hosted software offering Enterprise Solutions to customers through provision of software licenses and retail and customer relationship management ("CRM") solutions. Revenues under this arrangement primarily consist of fees for (i) licensing to provide customers with access to one or more of the existing cloud applications for e-commerce, marketing and customer management, (ii) the development of new cloud applications customized for individual customer, and (iii) various combinations of technical support and maintenance services provided by the Group. Contracts with customers under this arrangement are generally with a term of 1 to 24 months.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

(US\$'000, except share data and per share data, or otherwise noted)

**2 Principal accounting policies (Continued)****(w) Revenue recognition and cost of revenues (Continued)***SaaS products offering (Continued)*

Revenues from licensing of existing cloud applications are generally recognized ratably over time over the contract term beginning on the date that the licensing service is made available to the customer, whereby the Group considers that its customers simultaneously receive and consume the benefits provided by the use of existing cloud applications. The Group does not have other right to consideration in exchange for goods or service that the Group has transferred to a customer when that right is conditioned on something other than the passage of time.

Revenues of developing new cloud applications exclusively customized for customers is recognized at point-in-time when the Group is able to deliver the cloud applications to customers. The Group considers the transfer of control of new cloud applications to customer, which represents a distinct performance obligation, to be completed when such cloud applications are on-premise and fully functional such that the customer can use and benefit from the cloud applications on its own.

Besides, the Group also provides certain additional maintenance services along with the above arrangements of cloud application development and licensing, such as technical support and bug fixes. These additional maintenance services are considered to be a series of distinct services that are substantially the same and have the same duration and measure of progress; therefore, the Group concludes that they represent a separate combined performance obligation. Revenues from such additional maintenance services are recognized ratably over-time over the contract period.

The respective stand-alone selling prices of each of the three performance obligations are determined based upon observable prices in stand-alone transactions and contractually stated price whereby no allocation of selling prices among individual performance obligations are required.

Cost of revenues for SaaS products primarily comprises amortization expenses related to the Group's computer software and systems, salaries and benefits of relevant operations and support personnel, depreciation of relevant property and equipment and other direct services costs.

*Contract balances*

Timing of revenue recognition may differ from the timing of invoicing to customers. Accounts receivable represents amounts invoiced and revenue recognized prior to invoicing when the Group has satisfied its performance obligations and has the unconditional right to payment. The allowance for doubtful accounts is estimated based upon the Group's assessment of various factors, including historical experience, the age of the accounts receivable balances, current economic conditions and other factors that may affect the Group's customers' ability to pay. The Group normally does not have contract assets, which are primarily unbilled accounts receivable that are conditional on something other than the passage of time.

Deferred revenue represents contract liabilities which related to unsatisfied performance obligations at the end of the period. Due to the generally short-term duration of the contracts, the majority of the performance obligations are satisfied in the following reporting period. Revenue recognized during the years ended December 31, 2018 and 2019, respectively, relating to deferred revenue as of January 1, 2018 and 2019 was US\$25,410 and US\$15,768, respectively. For the amount remained as deferred revenue as of January 1, 2018 and 2019, respectively, but not recognized as revenue during the years ended December 31, 2018 and 2019, respectively, there is still a contractual obligation for the Group to provide service whereby the Group is not obliged to make any refund of the amount received from customers. Such amount will be recognized as revenue when all of the revenue recognition criteria are met.

Revenue recognized in the current period from performance obligations related to prior periods was not material.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

## 2 Principal accounting policies (Continued)

## (w) Revenue recognition and cost of revenues (Continued)

*Adoption of ASC 606*

The following table illustrates the effect of the adoption of ASC 606 by presenting a comparison of selected line items from the Group's consolidated statements of comprehensive loss for the year ended December 31, 2018, as actually reported and as they would have been reported under ASC 605, without the adoption of ASC 606 (in thousands, except per share data):

	As reported	Without adoption of ASC 606	Effect of change higher/(lower)
Net revenues	160,017	162,671	(2,654)
Cost of revenues	(120,897)	(123,551)	(2,654)
Gross profit	39,120	39,120	-
Loss before income tax expense	(31,956)	(31,956)	-
Income tax expense	(655)	(655)	-
Net loss	(32,611)	(32,611)	-
Basic net loss per share attributable to iClick Interactive Asia Group Limited	(1.23)	(1.23)	-
Diluted net loss per share attributable to iClick Interactive Asia Group Limited	(1.23)	(1.23)	-

The adoption of ASC 606 did not change the Group's consolidated balance sheet, consolidated statement of cash flows, or consolidated statement of changes in equity as of and for the year ended December 31, 2018.

*Practical Expedients*

The Group has used the following practical expedients as allowed under ASC 606:

- (i) The transaction price allocated to the performance obligations that are unsatisfied, or partially unsatisfied, has not been disclosed as substantially all of the Group's contracts have a duration of one year or less.
- (ii) Payment terms and conditions vary by contract type, although terms generally include a requirement of prepayment or payment within one year or less. In instances where the timing of revenue recognition differs from the timing of invoicing, the Group has determined that its contracts generally do not include a significant financing component.
- (iii) The Group generally expenses sales commissions when incurred because the amortization period would be one year or less. These costs are recorded within sales and marketing expenses.

## (x) Prepaid media costs

Prepaid media costs represent prepayments for online space paid by the Group to third party publishers of websites. Upon utilization, media costs are recognized in cost of revenues when the Group is determined as acting as the principal. However, when the Group is determined as acting as the agent, those costs are recognized as deduction to revenue by the Group. These prepayments are classified as current considering the corresponding online spaces are expected to be purchased and utilized within twelve months from the date of payments.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

(US\$'000, except share data and per share data, or otherwise noted)

**2 Principal accounting policies (Continued)**

**(y) Research and development expenses**

Research and development expenses consist primarily of (i) salary and welfare for research and development personnel, (ii) rental expenses and (iii) depreciation of office premise and servers utilized by research and development personnel. Costs incurred during the research stage are expensed as incurred. Costs incurred in the development stage, prior to the establishment of technological feasibility, which is when a working model is available, are expensed when incurred.

The Group accounts for internal use software development costs in accordance with guidance on intangible assets and internal use software. This requires capitalization of qualifying costs incurred during the software's application development stage and to expense costs as they are incurred during the preliminary project and post implementation/operation stages.

The Group incurred development costs in connection with an internal-use ERP software to further enhance management to monitor the business. While internal and external costs incurred during the preliminary project stage are expensed as incurred, costs relating to activities during the application development stages have been capitalized. For the years ended December 31, 2017, 2018 and 2019, the Group has capitalized development costs related to ERP software of US\$nil, US\$119 and US\$229 as intangible assets. In addition, the Group incurred other research and development costs in relation to other internal use software used to support its operations. Any development costs qualified for capitalization were immaterial for the periods presented. For the years ended December 31, 2017, 2018 and 2019, the Group has not capitalized any other costs related to internal use software other than the ERP software.

**(z) Sales and marketing expenses**

Sales and marketing expenses consist primarily of (i) advertising and marketing expenses, (ii) salary and welfare for sales and marketing personnel, and (iii) allowance for doubtful receivables. Advertising expenses are recorded as sales and marketing expenses when incurred, and totaled US\$1,727, US\$4,574 and US\$13,084 for the years ended December 31, 2017, 2018 and 2019, respectively.

**(aa) General and administrative expenses**

General and administrative expenses consist primarily of (i) salary and welfare for general and administrative personnel, and (ii) professional service fees.

**(ab) Employee social security and welfare benefits**

Employees of the Group in the PRC are entitled to staff welfare benefits including pension, work-related injury benefits, maternity insurance, medical insurance, unemployment benefit and housing fund plans through a PRC government-mandated multi-employer defined contribution plan. The Group is required to contribute to the plan based on certain percentages of the employees' salaries, up to a maximum amount specified by the local government.

The PRC government is responsible for the medical benefits and the pension liability to be paid to these employees and the Group's obligations are limited to the amounts contributed and no legal obligation beyond the contributions made.

The Group also makes payments to other defined contribution plans for employees employed by subsidiaries outside the PRC.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

(US\$'000, except share data and per share data, or otherwise noted)

**2 Principal accounting policies (Continued)****(ac) Non-controlling interests**

The non-controlling interests are presented in the consolidated balance sheets, separately from equity attributable to the shareholders of the Company. Non-controlling interests are presented on the face of the consolidated statement of comprehensive loss as an allocation of the total income or loss for the year between non-controlling interests holders and the shareholders of the Company.

**(ad) Income taxes**

Current income taxes are provided on the basis of net income for financial reporting purposes, adjusted for income and expense items which are not assessable or deductible for income tax purposes, in accordance with the regulations of the relevant tax jurisdictions.

Deferred income taxes are accounted for using an asset and liability method. Under this method, deferred income taxes are recognized for the tax consequences of temporary differences by applying enacted statutory rates applicable to future years to differences between the financial statement carrying amounts and the tax bases of existing assets and liabilities. The tax base of an asset or liability is the amount attributed to that asset or liability for tax purpose. The effect on deferred taxes of a change in tax rates is recognized in the consolidated statements of comprehensive loss in the period of change. A valuation allowance is provided to reduce the amount of deferred tax assets if it is considered more likely than not that some portion of, or all of the deferred tax assets will not be realized.

*Uncertain tax positions*

The guidance on accounting for uncertainties in income taxes prescribes a more likely than not threshold for financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. Guidance was also provided on derecognition of income tax assets and liabilities, classification of current and deferred income tax assets and liabilities, accounting for interest and penalties associated with tax positions, accounting for income taxes in interim periods, and income tax disclosures. Significant judgment is required in evaluating the Group's uncertain tax positions and determining its provision for income taxes. The Group recognizes interests and penalties, if any, under accrued expenses and other current liabilities on its consolidated balance sheets and under other expenses in its statements of operations and comprehensive loss. The Group did not recognize any significant interest and penalties associated with uncertain tax positions for the years ended December 31, 2017, 2018 and 2019. As of December 31, 2018 and 2019, the Group did not have any significant unrecognized uncertain tax positions.

**(ae) Share-based compensation**

The Company grants stock-based awards, including share options, restricted share units and warrants of the Company, to eligible employees, officers, directors, and non-employee consultants. The Company accounts for share-based awards granted to employees in accordance with ASC 718, "Compensation - Stock Compensation" and share-based awards granted to non-employees in accordance with ASC subtopic, 505-50 ("ASC 505-50"), "Equity-Based Payments to Non-Employees". ASC 505. On January 1, 2019, the Group adopted ASU 2018-07, Compensation—Stock Compensation (Topic 718): Improvement to Nonemployee Share-based Payment Accounting to amend the accounting for share-based payment awards issued to non-employees. Under ASU 2018-07, the accounting for awards to non-employees are similar to the model for employee awards.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

(US\$'000, except share data and per share data, or otherwise noted)

**2 Principal accounting policies (Continued)****(ae) Share-based compensation (Continued)***Option and RSUs granted to employees*

Under the fair value recognition provisions of ASC 718-10, share-based compensation costs are measured at the grant date. The share-based compensation expenses have been categorized as either general and administrative expenses, sales and marketing expenses or research and development expenses, depending on the job functions of the grantees. For the options and RSUs granted to employees, the compensation expense is recognized using the graded-vesting attribution approach over the requisite service period, which is generally the vesting period. Forfeitures are estimated at the time of grant, with such estimate updated periodically and with actual forfeitures recognized currently to the extent they differ from the estimate. In determining the fair value of the Company's share options, the binomial option pricing model has been applied. The fair value of RSUs is determined with reference to the fair value of the underlying shares.

*Option modification*

According to ASC 718, a change in any of the terms or conditions of equity based awards shall be accounted for as a modification of the award. Therefore, the Group calculates incremental compensation cost of a modification as the excess of the fair value of the modified option over the fair value of the original option immediately before its terms are modified. For vested options, the Group would recognize incremental compensation costs on the date of modification and for unvested options, the Group would recognize, prospectively and over the remaining requisite service period, the sum of the incremental compensation costs and the remaining unrecognized compensation costs for the original award.

*Option, RSUs and warrants granted to non-employees*

Effective January 1, 2019, the Company adopted ASU No. 2018-07, Compensation—Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting ("ASU 2018-07"), which expands the scope of Topic 718 to include share-based payment awards to nonemployees. As a result, stock-based awards granted to consultants and non-employees are accounted for in the same manner as awards granted to employees as described above. The impact of adoption of this new guidance did not have a material impact on the Group's consolidated financial statements. Prior to the adoption of ASU 2018-07, for share-based awards granted to non-employees, the Company accounted for the related share-based compensation expenses in accordance with ASC subtopic, 505-50 ("ASC 505-50"), "Equity-Based Payments to Non-Employees". Under the provision of ASC 505-50, these options, RSUs and warrants are measured as of the earlier of the date at which either: (1) commitment for performance by the non-employee has been reached; or (2) the non-employee's performance is complete.

Options and warrants of the Company issued to non-employees are measured based on fair value of the options and warrants which are determined by using the binomial option pricing model and RSUs of the Company issued to non-employees are measured based on fair value of the RSUs which are determined with reference to the fair value of the underlying shares.

**(af) Government subsidies**

The Group receives subsidies from the local PRC government for general use. General-use subsidies which are not subject to any conditions or specific use requirements are recorded as subsidy income in the consolidated statements of comprehensive loss.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

(US\$'000, except share data and per share data, or otherwise noted)

**2 Principal accounting policies (Continued)**

**(ag) Statutory reserves**

The Company's subsidiaries, a consolidated VIE and its subsidiaries incorporated in the PRC are required on an annual basis to make appropriations of retained earnings set at certain percentage of after-tax profit determined in accordance with PRC accounting standards and regulations ("PRC GAAP").

Appropriation to the statutory general reserve should be at least 10% of the after tax net income determined in accordance with the legal requirements in the PRC until the reserve is equal to 50% of the entities' registered capital. The Group is not required to make appropriation to other reserve funds and the Group does not have any intentions to make appropriations to any other reserve funds.

The general reserve fund can only be used for specific purposes, such as setting off the accumulated losses, enterprise expansion or increasing the registered capital. Appropriations to the general reserve funds are classified in the consolidated balance sheets as statutory reserves.

There are no legal requirements in the PRC to fund these reserves by transfer of cash to restricted accounts, and the Group was not done so.

Relevant laws and regulations permit payments of dividends by the PRC subsidiaries and affiliated companies only out of their retained earnings, if any, as determined in accordance with respective accounting standards and regulations. Accordingly, the above balances are not allowed to be transferred to the Company in terms of cash dividends, loans or advances.

**(ah) Related parties**

Parties are considered to be related if one party has the ability, directly or indirectly, to control the other party or exercise significant influence over the other party in making financial and operating decisions. Parties are also considered to be related if they are subject to common control or significant influence, such as a family member or relative, shareholder, or a related corporation.

**(ai) Dividends**

Dividends are recognized when declared. No dividends were declared for the years ended December 31, 2017, 2018 and 2019, respectively. The Group does not have any present plan to pay any dividends on ordinary shares in the foreseeable future. The Group currently intends to retain the available funds and any future earnings to operate and expand its business.

**(aj) Loss per share**

Basic loss per share is computed by dividing net loss attributable to holders of ordinary shares by the weighted average number of ordinary shares outstanding during the year using the two class method. The Group uses the two-class method to calculate net loss per share though both classes share the same rights in dividends. Therefore, basic and diluted loss per share are the same for both classes of ordinary shares. Using the two class method, net loss is allocated between ordinary shares and other participating securities (i.e. preferred shares) based on their participating rights.

Diluted loss per share is calculated by dividing net loss attributable to ordinary shareholders as adjusted for the effect of dilutive ordinary equivalent shares, if any, by the weighted average number of ordinary and dilutive ordinary equivalents shares outstanding during the year. Dilutive equivalent shares are excluded from the computation of diluted loss per share if their effects would be anti-dilutive. Ordinary share equivalents consist of the ordinary shares issuable in connection with the Group's convertible notes and ordinary shares issuable upon the conversion of the stock options and warrants and vesting of RSUs, using the treasury stock method.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

(US\$'000, except share data and per share data, or otherwise noted)

**2 Principal accounting policies (Continued)****(ak) Comprehensive loss**

Comprehensive loss is defined as the change in shareholders' deficit of the Group during a period arising from transactions and other events and circumstances excluding transactions resulting from investments by shareholders and distributions to shareholders.

Comprehensive loss is reported in the consolidated statements of comprehensive loss. Accumulated other comprehensive losses of the Group include the foreign currency translation adjustments.

**(al) Segment reporting**

Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker ("CODM"), or decision making group, in deciding how to allocate resources and in assessing performance. The CODM is comprised of certain members of the Company's management team.

The Group's organizational structure is based on a number of factors that the CODM uses to evaluate, view and run its business operations which include, but are not limited to, customer base, homogeneity of products and technology. The Group's operating segments are based on this organizational structure and information reviewed by the Group's CODM to evaluate the operating segment results.

Effective in the first quarter of 2019, the Group changed its segment disclosure to separately report the financial results of its Enterprise Solutions business in light of the acquisition of Changyi on January 1, 2019. This segment primarily reflects the results of the Group's SaaS products offering, which is conducted through Changyi Group, a group of companies acquired on January 1, 2019 (Note 4(b)). At the same time, the Group named its pre-existing online marketing service business as Marketing Solution business.

Therefore, the Group now reports two operating segments: 1) Marketing Solutions, and 2) Enterprise Solutions. This change in segment reporting aligns with the manner in which the Group's CODM currently receives and uses financial information to allocate resources and evaluate the performance of reporting segments. This change in segment presentation does not affect consolidated balance sheets, consolidated statements of comprehensive loss or consolidated statements of cash flows. The Group retrospectively revised prior period segment information, to conform to current period presentation.

**(am) Recently issued accounting pronouncements**

In June 2016, the FASB issued ASU 2016-13, Financial Instruments-Credit Losses, which changes the impairment model for most financial assets and certain other instruments. For trade and other receivables, held-to-maturity debt securities, loans and other instruments, entities will be required to use a new forward-looking "expected loss" model that will replace today's "incurred loss" model and generally will result in the earlier recognition of allowances for losses. For available-for-sale debt securities with unrealized losses, entities will measure credit losses in a manner similar to current practice, except that the losses will be recognized as an allowance. Subsequent to issuing ASU 2016-13, the FASB issued ASU 2018-19, Codification Improvements to Topic 326, Financial Instruments—Credit Losses, for the purpose of clarifying certain aspects of ASU 2016-13. In April 2019, the FASB issued ASU 2019-04, Codification Improvements to Topic 326, Financial Instruments – Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments. In May 2019, the FASB issued ASU 2019-05, Financial Instruments – Credit Losses (Topic 326): Targeted Transition Relief, or ASU 2019-05, to provide entities with more flexibility in applying the fair value option on adoption of the credit impairment standard. In November 2019, the FASB issued ASU 2019-11, Codification Improvements to Topic 326, Financial Instruments – Credit Losses, which expands the scope of the practical expedient that allows entities to exclude the accrued interest component of amortized cost from various disclosure. Entities that elect to apply the practical expedient must disclose the total amount of accrued interest that they exclude from their disclosures of amortized cost. ASU 2018-19, ASU 2019-04, ASU 2019-05 and ASU 2019-11 have the same effective date and transition requirements as ASU 2016-13. Early adoption is permitted starting in the first quarter of fiscal 2020. The Group estimated that the adoption of ASC 326 would result in a net adjustment of approximately US\$4 million to the opening balance of accumulated losses with a corresponding credit loss provision over accounts receivable being recognized in the consolidated balance sheet as of January 1, 2020. Other than disclosed, the Group does not expect the new standard to have a material impact on the consolidated financial statements.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

(US\$'000, except share data and per share data, or otherwise noted)

**2 Principal accounting policies (Continued)****(am) Recently issued accounting pronouncements (Continued)**

In January 2017, the FASB issued ASU 2017-04, “Intangibles — Goodwill and Other (Topic 350): Simplifying the test for goodwill impairment”, the guidance removes Step 2 of the goodwill impairment test, which requires a hypothetical purchase price allocation. Goodwill impairment will now be the amount by which a reporting unit’s carrying value exceeds its fair value, not the difference between the fair value and carrying amount of goodwill which was the step 2 test before. The ASU should be adopted on a prospective basis for the annual or any interim goodwill impairment tests beginning after December 15, 2019. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. The Group does not expect adoption of this ASU to be material to its consolidated financial statements on known trends, demands, uncertainties and events in its business. The Group plans to adopt ASU 2017-04 on January 1, 2020 and does not expect that the adoption of this ASU to have a material impact on the consolidated financial statements.

In November 2019, the FASB issued ASU 2019-08, Compensation – Stock Compensation (Topic 718) and Revenue from Contracts with Customers (Topic 606), which requires entities to measure and classify share based payments to a customer, in accordance with the guidance in ASC 718, Compensation – Stock Compensation. The amendments in that ASU expanded the scope of Topic 718 to include share-based payment transactions for acquiring goods and services from nonemployees and, in doing so, superseded guidance in Subtopic 505-50, Equity – Equity-Based Payments to Non-Employees. The amount that would be recorded as a reduction in revenue would be measured based on the grant date fair value of the share based payment, in accordance with Topic 718. The grant date is the date at which a supplier and customer reach a mutual understanding of the award’s key terms and conditions. The award’s classification and subsequent measurement would be subject to ASC 718 unless the award is modified or the grantee is no longer a customer. The amendments in this ASU are effective for public business entities in fiscal years beginning after December 15, 2019, and interim periods within those fiscal years. Early adoption is permitted, but not before it adopts the amendments in ASU 2018-07. The Group does not expect that the adoption of this ASU to have a material impact on the consolidated financial statements.

In August 2018, the FASB issued ASU 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement (“ASU 2018-13”) which eliminates, adds and modifies certain disclosure requirements for fair value measurements. Under the guidance, public companies will be required to disclose the range and weighted average used to develop significant unobservable inputs for Level 3 fair value measurements. The guidance is effective for all entities for fiscal years beginning after December 15, 2019 and for interim periods within those fiscal years, but entities are permitted to early adopt either the entire standard or only the provisions that eliminate or modify the requirements. The Group does not expect that the adoption of this ASU to have a material impact on the consolidated financial statements.

In August 2018, the FASB issued ASU 2018-15, Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40), which aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal use software license). The accounting for the service element of a hosting arrangement that is a service contract is not affected by the amendments in this update. The update is effective for public business entities for interim and annual periods beginning after December 15, 2019. The Group does not expect that the adoption of this ASU to have a material impact on the consolidated financial statements.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

(US\$'000, except share data and per share data, or otherwise noted)

**2 Principal accounting policies (Continued)**

**(am) Recently issued accounting pronouncements (Continued)**

In October 2018, the FASB issued ASU 2018-17, "Consolidation (Topic 810): Targeted Improvements to Related Party Guidance for Variable Interest Entities," which provides guidance that indirect interests held through related parties under common control will be considered on a proportional basis when determining whether fees paid to decision makers and service providers are variable interests. These indirect interests were previously treated the same as direct interests. The consideration of indirect interests on a proportional basis is consistent with how indirect interests held through related parties under common control are treated when determining if a reporting entity within a related party group is the primary beneficiary of a VIE. The new guidance is effective retrospectively for the year ending December 31, 2020 and interim reporting periods during the year ending December 31, 2020 with a cumulative-effect adjustment to retained earnings at the beginning of the earliest period presented. Early adoption is permitted. The Group did not early adopt and is currently evaluating the impact of adopting this ASU on its consolidated financial statements.

In December 2019, the FASB issued ASU 2019-12, Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes. The amendments in this ASU simplify the accounting for income taxes by removing certain exceptions to the general principles in Topic 740. The amendments also improve consistent application of and simplify GAAP for other areas of Topic 740 by clarifying and amending existing guidance. The amendments are effective for public entities in fiscal years beginning after December 15, 2020, including interim periods within those fiscal years. Early adoption is permitted. The Group did not early adopt and is currently evaluating the impact of adopting this ASU on its consolidated financial statements.

In January 2020, the FASB issued ASU No. 2020-01, "Investments—Equity Securities (Topic 321), Investments—Equity Method and Joint Ventures (Topic 323), and Derivatives and Hedging (Topic 815)", that clarifies the interactions between Topic 321, Topic 323, and Topic 815. The amendments in this ASU affect the application of the measurement alternative for certain equity securities and the equity method of accounting, and guidance for certain forward contracts and purchased options to purchase securities, that, upon settlement or exercise, would be accounted for under the equity method of accounting. The ASU is effective for public entities in fiscal years beginning after December 15, 2021, including interim periods within those fiscal years. Early adoption is permitted. The Group did not early adopt and is currently evaluating the impact of adopting this ASU on its consolidated financial statements.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

(US\$'000, except share data and per share data, or otherwise noted)

**3 Certain risks and concentration****(a) PRC regulations**

The Chinese market in which the Group operates poses certain macro-economic and regulatory risks and uncertainties. These uncertainties extend to the ability of the Group to engage in online marketing businesses through contractual arrangements in the PRC since the internet and marketing services industries remain regulated. The Group conducts certain of its operations in the PRC through its variable interest entity, which it consolidates as a result of a series of contractual arrangements enacted. Though the PRC has, since 1978, implemented a wide range of market-oriented economic reforms, continued reforms and progress towards a full market-oriented economy are uncertain. In addition, the telecommunication, information, and media industries remain highly regulated. Restrictions are currently in place and are unclear with respect to which segments of these industries foreign owned entities, like the Group, may operate. The Chinese government may issue from time to time new laws or new interpretations on existing laws to regulate areas such as telecommunication, information and media. Regulatory risk also encompasses the interpretation by the tax authorities of current tax laws, and the Group's legal structure and scope of operations in the PRC, which could be subject to further restrictions resulting in limitations on the Group's ability to conduct business in the PRC. There are uncertainties regarding the interpretation and application of current and future PRC laws, rules and regulations, including but not limited to the laws, rules and regulations governing the validity and enforcement of the contractual arrangements with consolidated VIE. The Group believes that the structure for operating its business in the PRC (including the ownership structure and the contractual arrangements with the consolidated VIE is in compliance with all applicable existing PRC laws, rules and regulations, and does not violate, breach, contravene or otherwise conflict with any applicable PRC laws, rules or regulations. However, the Group cannot assure that the PRC regulatory authorities will not adopt any new regulation to restrict or prohibit foreign investments in the online marketing business through contractual arrangements in the future or that it will not determine that the ownership structure and contractual arrangements violate PRC laws, rules or regulations. If the Company and its consolidated VIE are found to be in violation of any existing or future PRC laws or regulations, or fail to obtain or maintain any of the required permits or approvals, the relevant PRC regulatory authorities would have broad discretion in dealing with such violations, including:

- revoking the business licenses of such entities;
- discontinuing or restricting the conduct of any transactions between the Company's PRC subsidiaries and OptAim VIE;
- imposing fines, confiscating the income of the OptAim VIE or the Company's PRC subsidiaries, or imposing other requirements with which the Company or its PRC subsidiaries and OptAim VIE may not be able to comply;
- requiring the Company to restructure its ownership structure or operations, including terminating the contractual arrangements with OptAim VIE and deregistering the equity pledges of OptAim VIE, which in turn would affect its ability to consolidate, derive economic interests from, or exert effective control over OptAim VIE; or
- restricting or prohibiting its use of the proceeds of any offering to finance its business and operations in the PRC.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

(US\$'000, except share data and per share data, or otherwise noted)

**3 Certain risks and concentration (Continued)****(a) PRC regulations (Continued)**

If the imposition of any of these penalties precludes the Group from operating its business, it would no longer be in a position to generate revenue or cash from it. If the imposition of any of these penalties causes the Company to lose its rights to direct the activities of its consolidated VIEs or its rights to receive its economic benefits, the Company would no longer be able to consolidate these entities, and its financial statements would no longer reflect the results of operations from the business conducted by VIEs except to the extent that the Company receives payments from VIEs under the contractual arrangements. Either of these results, or any other significant penalties that might be imposed on the Company in this event, would have a material adverse effect on its financial condition and results of operations. Nevertheless, the laws and regulations that imposed restrictions on foreign ownership in advertising companies, including the Administrative Provisions on Foreign-Invested Advertising Enterprises were abolished in June 2015. To the extent any current or future business of OptAim VIE can be directly operated by the Company's wholly owned subsidiaries under PRC law, the Company is in the process of transferring such business to the Company's wholly owned subsidiaries.

On January 19, 2015, the Ministry of Commerce ("MOFCOM"), released for public comment a proposed PRC law, the Draft Foreign Investment Law, that appeared to include VIEs within the scope of entities that could be considered to be foreign investment enterprises ("FIEs"), that would be subject to restrictions under existing PRC law on foreign investment in certain categories of industry. The National People's Congress approved the Foreign Investment Law on March 15, 2019, effective on January 1, 2020. The Foreign Investment Law removes all references to the terms of "de facto control" or "contractual control" as defined in the draft published in 2015. However, the Foreign Investment Law has a catch-all provision under the definition of "foreign investment" which includes investments made by foreign investors in China through means stipulated in laws or administrative regulations or other methods prescribed by the State Council. In the event that the State Council in the future promulgates laws and regulations that deem investments made by foreign investors through contractual arrangements as "foreign investment," the Group's ability to use the contractual arrangements with its VIEs and the Group's ability to conduct business through the VIEs could be severely limited.

The Company's ability to control the VIEs also depends on the powers of attorney the founders have to vote on all matters requiring shareholder approval in the VIEs. As noted above, the Company believes these powers of attorney are legally enforceable but may not be as effective as direct equity ownership.

OptAim VIE holds assets that are important to the operation of the Group's business, including patents for proprietary technology and trademarks. If OptAim VIE falls into bankruptcy and all or part of its assets become subject to liens or rights of third-party creditors, the Group may be unable to conduct major part of its business activities in the PRC, which could have a material adverse effect on the Group's future financial position, results of operations or cash flows. However, the Group believes this is a normal business risk many companies face. The Group will continue to closely monitor the financial conditions of OptAim VIE.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

## 3 Certain risks and concentration (Continued)

## (a) PRC regulations (Continued)

OptAim VIE's assets comprise both recognized and unrecognized revenue-producing assets. The recognized revenue-producing assets include leasehold improvements, computers and network equipment and self-developed computer software which are recognized in the Group's consolidated balance sheet. The unrecognized revenue-producing assets mainly consist of patents, trademarks and assembled workforce which are not recorded in the financial statements of OptAim VIE as it did not meet the recognition criteria set in ASC 350-30-25.

The following financial information of the OptAim VIE excluding the intercompany items with the Company's subsidiaries was included in the accompanying financial statements as of December 31, 2018 and 2019 and for the years ended December 31, 2017, 2018 and 2019:

	As of December 31,	
	2018	2019
<b>Assets</b>		
<b>Current assets</b>		
Cash and cash equivalents	1,865	1,654
Accounts receivable, net	2,357	4,328
Prepaid media costs	-	2,424
Other current assets	604	652
<b>Total current assets</b>	<u>4,826</u>	<u>9,058</u>
<b>Non-current assets</b>		
Property and equipment, net	9	73
Intangible assets	697	494
Right-of-use assets	-	108
Other non-current assets	174	-
<b>Total non-current assets</b>	<u>880</u>	<u>675</u>
<b>Total assets</b>	<u>5,706</u>	<u>9,733</u>
<b>Liabilities</b>		
<b>Current liabilities</b>		
Accounts payable	45	27
Deferred revenue	1,300	866
Lease liabilities	-	86
Accrued liabilities and other current liabilities	1,776	1,802
<b>Total current liabilities</b>	<u>3,121</u>	<u>2,781</u>
<b>Non-current liabilities</b>		
Deferred tax liabilities	238	187
Lease liabilities	-	25
<b>Total non-current liabilities</b>	<u>238</u>	<u>212</u>
<b>Total liabilities</b>	<u>3,359</u>	<u>2,993</u>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

**3 Certain risks and concentration (Continued)****(a) PRC regulations (Continued)**

	For the years ended December 31,		
	2017	2018	2019
Net revenues	25,302	2,902	20,670
Net profit/(loss)	1,646	(47)	(451)
Net cash provided by/(used in) operating activities	539	281	(142)
Net cash used in investing activities	-	(1)	(69)
Net increase/(decrease) in cash and cash equivalents	<u>539</u>	<u>280</u>	<u>(211)</u>

In accordance with the VIE arrangements, the Group has the power to direct activities of the OptAim VIE, and can have assets transferred out of the OptAim VIE. Therefore, the Group considers that there are no assets of the OptAim VIE that can be used only to settle their obligations.

**(b) Foreign exchange risk**

Assets and liabilities of non-US\$ functional currency entities are translated into US\$ using the applicable exchange rates at the balance sheet date. Items in the statements of comprehensive loss are translated into US\$ using the average exchange rate during the period. Equity accounts were translated at their historical exchange rates. The resulting translation adjustments are accumulated as a component of accumulated other comprehensive income on the consolidated statements of shareholders' equity.

Certain of the Group's operating activities are transacted in Renminbi ("RMB"), which is not freely convertible into foreign currencies. All foreign exchange transactions take place either through the People's Bank of China or other banks authorized to buy and sell foreign currencies at the exchange rates quoted by the People's Bank of China.

The revenues and expenses of the Group's subsidiaries, VIE and VIE's subsidiaries in the PRC are generally denominated in RMB and their assets and liabilities are denominated in RMB. RMB is not freely convertible into foreign currencies, and remittances of foreign currencies into the PRC and exchange of foreign currencies into RMB require approval by foreign exchange administrative authorities and certain supporting documentation. The State Administration for Foreign Exchange, under the authority of the People's Bank of China, controls the conversion of RMB into other currencies. Approval of foreign currency payments by the People's Bank of China or other regulatory institutions requires submitting a payment application form together with suppliers' invoices and signed contracts. The value of RMB is subject to changes in central government policies and to international economic and political developments affecting supply and demand in the China Foreign Exchange Trading System market.

Certain of the Group's operating activities are transacted in Hong Kong dollars ("HK\$"). Foreign exchange risk arises from future commercial transactions, recognized assets and liabilities and net investments in foreign operations. The Group considers the foreign exchange risk in relation to transactions denominated in HK\$ with respect to US\$ is not significant as HK\$ is pegged to US\$.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

## 3 Certain risks and concentration (Continued)

## (c) Fair value measurement

## (i) Financial assets and liabilities measured at fair value

The following table sets forth, by level within the fair value hierarchy (see Note 2(e)), financial assets and liabilities measured at fair value as of December 31, 2018 and 2019. As required by ASC 820, financial assets and financial liabilities are classified in their entirety based on the lowest level of input that is significant to the respective fair value measurement.

	Fair value measurements using			Total fair value
	Quoted prices in active market for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant Unobservable inputs (Level 3)	
<b>As of December 31, 2018</b>				
Short-term investments	-	17,427	-	17,427
Convertible notes at fair value	-	-	(34,837)	(34,837)
	<u>-</u>	<u>17,427</u>	<u>(34,837)</u>	<u>(17,410)</u>
<b>As of December 31, 2019</b>				
Convertible notes at fair value	-	-	(49,008)	(49,008)

## (ii) Equity securities without readily determinable fair values

The equity securities without readily determinable fair value are recorded at fair value only if an impairment or observable price adjustment is recognized in the current period. There were no fair value changes related to such equity securities classified as other long-term investments in the consolidated balance sheets for the years ended December 31, 2018 and 2019.

## (d) Concentration risk

## (i) Concentration of revenues

For the years ended December 31, 2017 and 2019, no individual customer accounted for more than 10% of the net revenues. For the year ended December 31, 2018, one customer accounted for 14% of the net revenues.

## (ii) Concentration of accounts receivable

The Group has not experienced any significant recoverability issue with respect to its accounts receivable. The Group conducts credit evaluations on its customers and generally does not require collateral or other security from such customers. The Group grants up to 180 days of credit term to customers and periodically evaluates the creditworthiness of the existing customers in determining an allowance for doubtful accounts primarily based upon the age of the receivables and factors surrounding the credit risk of specific customers.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

**3 Certain risks and concentration (Continued)****(d) Concentration risk (Continued)****(ii) Concentration of accounts receivable (Continued)**

As of December 31, 2018 and 2019, no individual customer accounted for more than 10% of the consolidated accounts receivable. The top 10 accounts receivable accounted for 48% and 33% of the consolidated accounts receivable as of December 31, 2018 and 2019, respectively.

**(iii) Credit risk**

As of December 31, 2018 and 2019, substantially all of the Group's cash and cash equivalents, time deposits and restricted cash were placed with financial institutions in Hong Kong and the PRC. Management chooses these institutions because of their reputations and track records for stability, and their known large cash reserves, and management periodically reviews these institutions' reputations, track records, and reported reserves. Management expects that any additional institutions that the Group uses for its cash and bank deposits will be chosen with similar criteria for soundness. The balances in the PRC are not insured since it is not a market practice in the PRC. Nevertheless under the PRC law, it is required that a commercial bank in the PRC that holds third party cash deposits should maintain a certain percentage of total customer deposits taken in a statutory reserve fund for protecting the depositors' rights over their interests in deposited money. PRC banks are subject to a series of risk control regulatory standards; PRC bank regulatory authorities are empowered to take over the operation and management of any PRC bank that faces a material credit crisis. The Group believes that it is not exposed to unusual risks as these financial institutions are PRC banks with high credit quality. The Group had not experienced any losses on its cash and cash equivalents, time deposits and restricted cash during the years ended December 31, 2017, 2018 and 2019 and believes that its credit risk to be minimal.

**4 Business acquisitions****(a) Acquisition of Myhayo**

In November 2018, Beijing VIE acquired 40% equity interest of Myhayo from an independent third party. The Company obtains control over Myhayo with its controlling voting right at the level of both shareholders and board of directors, as the other shareholder of Myhayo expects the operating effectiveness brought about by the control over Myhayo by the Company to be of their best interests. Myhayo and its underlying subsidiary is a mobile content aggregator of articles and short videos in the PRC, which presents customized feeds to users via its mobile application. The Company expects to increase its market share in the PRC online marketing segment, particularly in relation to mobile platforms.

The total purchase consideration for 40% equity interest of Myhayo amounted to US\$726 by cash.

The acquisition was recorded as a business combination. The following table summarizes the estimated fair values of the assets acquired and liabilities assumed at the date of acquisition:

Fair value of consideration transferred:

Cash	<u><u>726</u></u>
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## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

## 4 Business acquisitions (Continued)

## (a) Acquisition of Myhayo (Continued)

Recognized amounts of identifiable assets acquired and liabilities assumed:

Cash	2,420
Other current assets	6,329
Property and equipment	8
Intangible asset	697
Current liabilities	(6,688)
Deferred tax liabilities	(238)
Non-controlling interests	(1,517)
Total identifiable net assets acquired	1,011
Gain on bargain purchase (Note 24)	285

As of December 31, 2018, purchase consideration payable of US\$726 was settled and there was no adjustment to the purchase consideration amounts.

This business combination resulted in a gain of bargain purchase because the purchase price was lower than the fair value of assets acquired and liabilities assumed. The gain on bargain purchase is attributable to the Group's bargaining power and ability in negotiating the agreed terms of the transaction with the existing shareholder who has been seeking for strategic investors that could bring synergies to Myhayo. Acquisition-related costs were immaterial and were included in general and administrative expenses for the year ended December 31, 2018.

In determining the fair value of the intangible asset, an income approach was used. In this approach, significant estimates consist of discount rate of 29.4% and a growth rate on revenue ranges from 50% to 106.8%. The estimated amounts recognized on the acquired identifiable intangible asset and its estimated useful life are shown in the following table:

	Estimated useful life	Gross carrying amount
A self-developed computer software and system	4 years	697

Pro-forma results related to the acquisition in accordance ASC 805 have not been presented because the acquisition of Myhayo is not material, where net revenue and net loss of the acquired entity is less than 5% of the Company's consolidated net revenue and net loss for the year ended December 31, 2018.

## (b) Acquisition of Changyi

On January 1, 2019, the Group acquired 34.38% equity interest of Changyi, a company established in the PRC and an independent software vendor based in Shanghai, the PRC. Changyi and its underlying subsidiary Suzhou Changyi became subsidiaries of the Company effective from January 1, 2019 as the Company established control over Changyi Group through certain shareholder agreements since then. Other shareholders of Changyi Group expects the operating effectiveness brought about by the control over Changyi Group by the Company to be of their best interests. Changyi Group provides intelligent retail and CRM solutions to clients, allowing them to consolidate consumer's online and offline information to provide connection within the organization and stakeholders. The Company expects to increase its market share in the data-driven Enterprise Solutions segment beyond digital marketing through Changyi Group.

The total purchase consideration for 34.38% equity interest of Changyi amounted to RMB42.6 million (equivalent to approximately US\$6,190) by cash.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

## 4 Business acquisitions (Continued)

## (b) Acquisition of Changyi (Continued)

The acquisition was recorded as a business combination. The following table summarizes the estimated fair values of the assets acquired and liabilities assumed at the date of acquisition:

Fair value of consideration transferred:

Cash	6,190
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Recognized amounts of identifiable assets acquired and liabilities assumed:

Cash	219
Other current assets	490
Property and equipment	56
Intangible assets	1,830
Current liabilities	(405)
Deferred tax liabilities	(274)
Non-controlling interests	(11,815)
Total identifiable net deficits acquired	(9,899)
Goodwill (Note 13)	16,089

As of December 31, 2019, purchase consideration payable of US\$6,190 was settled and there is no adjustment to the purchase consideration amounts.

The excess of purchase price over tangible assets, identifiable intangible assets acquired and liabilities assumed was recorded as goodwill. Goodwill associated with the acquisition of Changyi was attributable to the expected synergy arising from the Enterprise Solutions operations. The acquired goodwill is not deductible for tax purposes. Acquisition-related costs were immaterial and were included in general and administrative expenses for the year ended December 31, 2019.

In determining the fair value of the intangible assets, an income approach was used. In this approach, significant estimates consist of discount rate of 30.2% and a growth rates on revenue ranging from 10% to 30%. The estimated amounts recognized on the acquired identifiable intangible asset and its estimated useful life are shown in the following table:

	Estimated useful life	Gross carrying amount
Developed technologies	5 years	117
Customer relationship	5 years	1,103
Contract backlog	3 years	610
		1,830

Net revenue and net loss of Changyi for the year ended December 31, 2019 were US\$5,518 and US\$997, respectively. Unaudited pro forma net revenues and net loss of the Company for the year ended December 31, 2018 as if the acquisition of Changyi had occurred on January 1, 2018 were US\$162,394 and US\$33,415, respectively.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

## 4 Business acquisitions (Continued)

## (b) Acquisition of Changyi (Continued)

The Company did not have any material, non-recurring pro-forma adjustments directly attributable to the business combination reflected in the reported pro-forma net revenue and net loss.

The pro forma information is not necessarily indicative of the actual results that would have been achieved had Changyi acquisition occurred as of January 1, 2017 or the results that may be achieved in future periods.

## (c) Acquisition of Addoil

In February 2019, the Company acquired 100% equity interest of Addoil, a company incorporated in Hong Kong. Addoil and its underlying subsidiary Headline (together, "Addoil Group") are engaged in the business of developing and operating a mobile application that collects and utilizes data from users who use its social functionalities to share food and travel related contents.

The total purchase consideration for all the equity interest of Addoil Group amounted to US\$1,218 by cash. The acquisition was recorded as a business combination. The following table summarizes the estimated fair values of the assets acquired and liabilities assumed at the date of acquisition:

Fair value of consideration transferred:

Cash	<u><u>1,218</u></u>
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Recognized amounts of identifiable assets acquired and liabilities assumed:

Cash	18
Other current assets	42
Property and equipment	34
Right-of-use asset	34
Current liabilities	<u>(35)</u>
Total identifiable net assets acquired	<u>93</u>
Goodwill (Note 13)	<u><u>1,125</u></u>

As of December 31, 2019, purchase consideration payable of US\$1,218 was settled and there is no adjustment to the purchase consideration amounts.

The excess of purchase price over tangible assets and liabilities assumed was recorded as goodwill. Goodwill associated with the acquisition of Addoil Group was attributable to the expected synergy arising from the consolidated Marketing Solutions business. The acquired goodwill is not deductible for tax purposes. Acquisition-related costs were immaterial and were included in general and administrative expenses for the year ended December 31, 2019.

Pro-forma results related to the acquisition in accordance ASC 805 have not been presented because the acquisition of Addoil Group is not material, where net revenue and net loss of the acquired entity is less than 5% of the Company's consolidated net revenue and net loss for the year ended December 31, 2019.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

## 5 Cash and cash equivalents and time deposits

Cash and cash equivalents represent cash on hand, cash held at bank, and short-term deposits placed with banks or other financial institutions, which have original maturities of three months or less.

As of December 31, 2019, the Group had time deposits of US\$410 with an average original maturity of 3.2 months which are denominated in US\$. As of December 31, 2018, the Group did not have any time deposit.

Cash and cash equivalents and time deposits as of December 31, 2018 and 2019 primarily consist of the following currencies:

	As of December 31,			
	2018		2019	
	Amount in thousand	US\$ equivalent	Amount in thousand	US\$ equivalent
RMB	61,312	8,904	84,034	11,776
HK\$	10,337	1,317	8,329	1,061
US\$	29,185	29,185	24,175	24,175
SGD	263	190	151	110
TWD	5,700	181	931	30
Euro ("EUR")	38	43	46	51
JPY	-	-	4,550	41
Others	6	8	26	20
		<u>39,828</u>		<u>37,264</u>

## 6 Restricted cash

As of December 31, 2019, the Group's restricted cash of US\$23,852 represented bank balances held in restricted bank accounts pursuant to certain short term loan agreements (see Note 17 for details) and carried fixed interest at a weighted average rate of 1.85% per annum, out of which US\$21,463 and US\$2,389 are denominated in US\$ and HK\$, respectively. As of December 31, 2018, the Group did not have any restricted cash.

## 7 Equity investment

On May 31, 2019, the Company and VGI Global Media PLC ("VGI"), an online-to-offline solutions provider across advertising, payment and logistics platforms in Thailand, jointly established a new company namely V-Click Technology Company Limited ("V-Click"). VGI holds a majority stake of 51% in V-Click and the Company holds the remaining 49% stake. The investment was accounted for as an equity-method investment due to the significant influence the Company has over the operating and financial policies of the equity investee.

## (a) Investment in an equity investee

Movements on the Group's investment in an equity investee during the year were as follows:

	V-Click
Balance as of January 1, 2018, December 31, 2018 and January 1, 2019	-
Cost of investment	566
Share of loss	(408)
Balance as of December 31, 2019	<u>158</u>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

## 7 Equity investment (Continued)

The Group recognized its share of the equity investee's loss of US\$408 for the year ended December 31, 2019. There was no indicator of impairment noted for this equity-method investment as of December 31, 2019.

## (b) Amount due from an equity investee

As of December 31, 2019, the amount was due from V-Click in relation to a cash advance of US\$155 (2018: US\$nil), which was unsecured, interest-free and repayable on demand.

## 8 Other long-term investments

The Group's other long-term investments consist of securities without readily determinable fair value and over which the Group has neither significant influence nor control through investments in common stock or in-substance common stock purchased in 2018 and 2019. There was no fair value change related to the investments for the years ended December 31, 2018 and 2019. The investments are not considered material to the Group's financial position.

As of December 31, 2018 and 2019, the Group made investments in equity investments without readily determinable fair value with an amount of US\$503 and US\$1,503, respectively.

As of December 31, 2019, the Group made a prepayment of US\$1,000 (2018: US\$nil) for a long-term equity investment. As of the date of these consolidated financial statements, the investment has not been completed.

## 9 Accounts receivable, net

	As of December 31,	
	2018	2019
Accounts receivable, gross	67,134	147,440
Less: allowance for doubtful accounts	(1,507)	(3,469)
Accounts receivable, net	<u>65,627</u>	<u>143,971</u>

The following table presents the movement in the allowance for doubtful accounts:

	For the years ended December 31,		
	2017	2018	2019
Balance at the beginning of year	1,693	1,478	1,507
Additions for the year	910	92	1,995
Recoveries	(40)	-	-
Accounts receivable written off	(1,134)	(15)	-
Exchange differences	49	(48)	(33)
Balance at the end of year	<u>1,478</u>	<u>1,507</u>	<u>3,469</u>

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**  
(US\$'000, except share data and per share data, or otherwise noted)

**10 Other assets**

The other assets consist of the following:

	As of December 31,	
	2018	2019
<b>Current</b>		
Deposits	984	4,859
Prepayments	1,262	2,793
VAT receivable	325	353
Others	671	978
	<u>3,242</u>	<u>8,983</u>
<b>Non-current</b>		
Rental deposits	<u>232</u>	<u>109</u>

**11 Property and equipment, net**

Property and equipment consist of the following:

	As of December 31,	
	2018	2019
<b>Cost:</b>		
Office equipment	4,327	4,541
Leasehold improvements	1,487	1,645
Furniture and fixtures	693	757
Total cost	<u>6,507</u>	<u>6,943</u>
Less: Accumulated depreciation	(6,046)	(6,266)
Exchange differences	<u>(132)</u>	<u>(141)</u>
Property and equipment, net	<u>329</u>	<u>536</u>

Depreciation expense recognized for the years ended December 31, 2017, 2018 and 2019 are summarized as follows:

	For the years ended December 31,		
	2017	2018	2019
Cost of revenues	6	6	2
Research and development	108	124	49
Sales and marketing expenses	582	504	21
General and administrative expenses	667	425	262
Total	<u>1,363</u>	<u>1,059</u>	<u>334</u>

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**  
(US\$'000, except share data and per share data, or otherwise noted)

**12 Intangible assets, net**

Intangible assets consist of the following:

	As of December 31,	
	2018	2019
Cost:		
Computer software	22,382	22,615
Developed technologies	-	117
Customer relationship	-	1,103
Contract backlog	-	610
Less: Accumulated amortization	(15,136)	(19,910)
Exchange differences	1	(117)
Intangible assets, net	<u>7,247</u>	<u>4,418</u>

Amortization expense recognized for the years ended December 31, 2017, 2018 and 2019 are summarized as follows:

	For the years ended December 31,		
	2017	2018	2019
Cost of revenues	4,147	4,147	4,771
Research and development	3	1	1
Sales and marketing expenses	17	3	-
General and administrative expenses	54	16	2
	<u>4,221</u>	<u>4,167</u>	<u>4,774</u>

The estimated aggregate amortization expense for each of the next five years as of December 31, 2019 is:

	Amortization expense of intangible assets
2020	3,093
2021	664
2022	417
2023	244
2024	-
	<u>4,418</u>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

## 13 Goodwill

Movements on goodwill during the year were as follows:

	Marketing Solutions	Enterprise Solutions	Total
Balance as of January 1, 2018, December 31, 2018 and January 1, 2019	48,496	-	48,496
Goodwill arising from acquisitions during the year (Note 4)	1,125	16,089	17,214
Balance as of December 31, 2019	<u>49,621</u>	<u>16,089</u>	<u>65,710</u>

Goodwill is not deductible for tax purposes. The Group performs the annual impairment test on December 31 of each year using a two-step process as explained in Note 2(q).

For the years ended December 31, 2017 and 2018, the Group determined that there was one single operating segment and one single reporting unit for goodwill impairment purpose. In the first step of the goodwill impairment test, the Group estimated the fair value of its reporting unit using the market approach. Under the market approach, the Group utilized the market capitalization of its publicly-traded shares to determine the fair value of the Group, as a single reporting unit.

Following the acquisition of Changyi on January 1, 2019, management determined that the Group operates under two separate operating segments and two separate reporting units for goodwill impairment purpose with the goodwill arising from the acquisition of Changyi of US\$5,531 attributed to Enterprise Solutions and the goodwill arising from other acquisitions of US\$49,621 attributed to the Marketing Solutions. In the first step of the goodwill impairment test, the Group estimates the fair value of individual reporting unit using a combination of income approach and market approach.

According to the assessment of the first step, as of December 31, 2018 and 2019, the fair values of the reporting units exceeded the respective carrying amounts and goodwill was not considered impaired. Accordingly, the second step was not required. Based on the impairment tests performed, no impairment of goodwill was recorded for all years presented.

## 14 Lease Accounting

The Group adopted ASC 842 as of January 1, 2019. As part of the implementation, the Group recognized its lease liabilities, including the current and non-current portions, within its consolidated balance sheets as of the adoption date, which represents the present value of the Group's obligation related to the estimated future lease payments. The Group also recognized ROU assets which represent the right to use the leased assets over the period of individual leases. The ROU assets were calculated as the lease liabilities less any asset or liability balances that existed at the time of adoption. The amortization expense of ROU assets amounted to US\$1,548 for the year ended December 31, 2019.

The lease term is generally specified in lease agreements, however certain agreements provide for lease term extensions or early termination options. To determine the period for the estimated future lease payments, the Group evaluates whether it is reasonably certain that it will exercise the option at the commencement date and periodically thereafter. The lease terms of the Group's operating leases generally range from 12 months to 39 months, and the weighted average remaining lease term is 18 months as of December 31, 2019.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

## 14 Lease Accounting (Continued)

To determine the estimated future lease payments, the Group reviews each of its lease agreements to identify the various payment components. The Group includes only the actual lease components in its determination of future lease payments for all the leases. Once the estimated future lease payments are determined, the Group uses a discount rate to calculate the present value of the future lease payments. As of December 31, 2019, a weighted average discount rate of 7.00% has been applied to the remaining lease payments to calculate the lease liabilities included within the consolidated balance sheets. This represents the incremental borrowing rate the Group would be subject to on borrowings from its available revolving debt agreements.

The following table presents the maturity of the Group's operating lease liabilities as of December 31, 2019:

Remaining of	
2020	1,200
2021	736
Total operating lease payments (undiscounted)	1,936
Less: Imputed interest	(116)
Total operating lease liabilities (discounted)	1,820

Lease expenses for these leases are recognized on a straight-line basis over the lease term. For short-term leases over which the Group has elected not to apply the recognition requirements of ASC 842, the Group has recognized the lease payments as expenses on a straight-line basis over the lease term. For the years ended December 31, 2017 and 2018, total rental expenses under all operating leases were US\$1,862 and US\$2,737, respectively. For the year ended December 31, 2019, total lease cost is comprised of the following:

	Operating lease cost
Relating to the operating lease liabilities	1,721
Relating to short-term leases	887
	2,608

Supplemental cash flow information related to operating leases for the year ended December 31, 2019 was as follows:

Cash payments for operating leases	2,449
Right-of-use assets obtained in exchange for operating lease liabilities	3,199

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**  
(US\$'000, except share data and per share data, or otherwise noted)

**15 Deferred revenue**

	As of December 31,	
	2018	2019
Deferred revenue, current	27,191	27,089

Changes in deferred revenue balance for the years ended December 31, 2018 and 2019 were as follows:

	For the years ended December 31,	
	2018	2019
Balance at beginning of year	33,037	27,191
Additions to deferred revenue	192,822	260,051
Recognition of deferred revenue as revenues	(197,698)	(259,574)
Exchange differences	(970)	(579)
Balance at end of year	27,191	27,089

**16 Accrued liabilities and other liabilities**

Accrued liabilities and other liabilities consist of the following:

	As of December 31,	
	2018	2019
<b>Current</b>		
Rebates payable to customers	2,209	2,260
VAT and other taxes payable	3,548	3,440
Security deposit received from customers	551	610
Accrued employee benefits	3,980	4,756
Accrued professional fees	3,359	3,662
Accrued marketing and hosting expense	1,342	2,486
Others	1,359	2,723
	16,348	19,937
<b>Non-current</b>		
Deferred other income	673	449

**17 Bank borrowings**

	As of December 31,	
	2018	2019
Half-year revolving loans denominated in RMB (Note (i), (ii), (iii),(x))	9,439	9,851
1-year revolving loan denominated in HK\$ (Note (iv))		538
1-year revolving loan denominated in RMB (Note (vii),(xi))	-	6,796
1-year revolving loan denominated in US\$ (Note (v), (vi),(viii),(ix))	-	19,666
	9,439	36,851

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

17

**Bank borrowings (Continued)**

Note:

- (i) On December 27, 2017, the Company, through its PRC subsidiaries, renewed a one-year revolving loan agreement with a bank amounting to RMB50 million (equivalent to US\$7,603). The interest rate of this loan facility was the benchmark interest rate determined by the People's Bank of China for loans over one year granted by financial institutions plus 1.65% per annum. This loan was subsequently renewed for one year in December 2018 amounting to RMB50 million (equivalent to US\$7,261) at the interest rate determined by the People's Bank of China for loans over half year granted by financial institutions plus 2.65% per annum. The loan was subsequently repaid in 2019.
- (ii) On September 21, 2018, the Company, through a PRC subsidiary, entered into a half-year revolving loan agreement with a bank amounting to a total of RMB15 million (equivalent to US\$2,178). Corporate guarantee by the Company and accounts receivable of certain subsidiaries of the Company were provided as pledge to secure the obligations under this revolving loan. The interest rate of this loan facility was the benchmark interest rate determined by the People's Bank of China for loans over half year granted by financial institutions plus 2.65% per annum. The loan was subsequently repaid in 2019.
- (iii) On January 7, 2019 and February 12, 2019, the Company, through a PRC subsidiary, entered into two facility agreements for working capital loans with a bank, which provides for a RMB32 million (equivalent to US\$5,000) and RMB64 million (equivalent to US\$10,000) half-year revolving loan, respectively. Out of the US\$5,000 loan facility, the PRC subsidiary had utilized RMB20.3 million (equivalent to US\$2,845) as of December 31, 2019. The Company did not have amounts drawn down under the US\$10,000 loan facility which remained outstanding as of December 31, 2019. Corporate guarantee by the Company and deposits of the Company are provided as pledge to secure the obligations under this revolving loan. The interest rate of this loan facility is fixed at 5.25% per annum.
- (iv) On March 18, 2019, the Company through its Hong Kong subsidiaries, entered into a one-year revolving loan agreement with a bank amounting to a total of HK\$24 million (equivalent to US\$3,057). Out of this loan facility, the Hong Kong subsidiaries had utilized HK\$4.2 million (equivalent to US\$538) as of December 31, 2019. Corporate guarantee by the Company and accounts receivable of certain subsidiaries of the Company are provided as pledge to secure the obligations under this revolving loan. The interest rate of this loan facility is at 4.25% per annum over 1-month Hong Kong Interbank Offered Rate ("HIBOR").

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

17

**Bank borrowings (Continued)**

Note: (Continued)

- (v) On April 15, 2019, the Company, through its PRC subsidiary, entered into a facility agreement for working capital loans with a bank. The loan facility provides for a US\$13,600 one-year revolving loan, which is supported by the US\$15,000 standby documentary credit facilities stated in Note 17(ix). On September 24, 2019, this loan was subsequently amended which provides for a US\$20,000 one-year revolving loan. Out of this loan facility, the PRC subsidiary had utilized US\$2,840 as of December 31, 2019. Corporate guarantee by the Company and deposits and accounts receivable of certain subsidiaries of the Company are provided as pledge to secure the obligations under this revolving loan. The interest rate of this loan facility is either (i) 120% of the benchmark interest rate determined by the People's Bank of China for a one-year loan granted by financial institutions if the loan is drawn down in RMB, or (ii) 1-month LIBOR plus 3.00% per annum if the loan is drawn down in US\$. The total balance of US\$2,840 as of December 31, 2019 was wholly drawn down in US\$.
- (vi) On May 23, 2019, the Company, through its Hong Kong subsidiary, entered into a facility agreement for working capital loans with a bank, which provides for a US\$10,000 one-year revolving loan. Out of this loan facility, the Hong Kong subsidiary had utilized US\$6,984 as of December 31, 2019. Corporate guarantee of the Company and deposits of a subsidiary of the Company are provided as pledge to secure the obligations under this revolving loan. The interest rate of this loan facility is 1.00% per annum over deposit rate on the pledged deposit.
- (vii) On August 29, 2019, the Company, through its PRC subsidiaries, entered into a facility agreement for working capital loans with a bank, which provides for a RMB18.5 million (equivalent to US\$2,592) one-year revolving loan. Out of this loan facility, the PRC subsidiary had utilized RMB18.5 million (equivalent to US\$2,592) as of December 31, 2019. Corporate guarantee of the Company and deposits of a Hong Kong subsidiary of the Company are provided as pledge to secure the obligations under this revolving loan. The interest rate of this loan facility was the benchmark interest rate determined by the People's Bank of China for loans over one year granted by financial institutions plus 1.00% per annum. This loan was subsequently renewed in September 2019 whereby the interest rate of this loan facility was amended to be fixed at 5.22% per annum.
- (viii) On August 29, 2019, the Company, through its Hong Kong subsidiaries, entered into a facility agreement for working capital loans with a bank, which provides for a US\$1,600 one-year revolving loan. Out of this loan facility, the Hong Kong subsidiaries had utilized US\$1,600 as of December 31, 2019. Corporate guarantee of the Company and deposits of a Hong Kong subsidiary of the Company are provided as pledge to secure the obligations under this revolving loan. The interest rate of this loan facility is the 1-month London Inter-bank Offered Rate ("LIBOR") plus 1.00% per annum.
- (ix) On October 4, 2019, the Company through its Hong Kong subsidiaries, entered into a one-year facility agreement for working capital loans with a bank, which provides for (i) US\$15,000 standby documentary credit facilities, (ii) US\$10,000 combined limit for pre-shipment buyer loan and revolving loan, and (iii) US\$1,000 overdraft facilities. Out of these loan facilities, the Hong Kong subsidiaries had utilized US\$8,242 as of December 31, 2019. Corporate guarantee of the Company and bank deposits of certain subsidiaries of the Company are provided as pledge to secure the obligations under these loan facilities. For the pre-shipment buyer loan, the interest rate is at either (i) HIBOR plus 3.85% per annum if the loan is drawn down in HK\$, or (ii) LIBOR plus 3.85% per annum if the loan is drawn down in US\$. For the revolving loan, the interest rate is at either (i) HIBOR plus 4.25% per annum if the loan is drawn down in HK\$, or (ii) LIBOR plus 4.25% per annum if the loan is drawn down in US\$. For the overdraft facility, the interest rate is at the bank's US\$ best lending rate.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

(US\$'000, except share data and per share data, or otherwise noted)

**17 Bank borrowings (Continued)**

Note: (Continued)

- (x) On December 20, 2019, the Company, through its PRC subsidiaries, entered into a facility agreement for working capital loans with a bank, which provides for a RMB50 million (equivalent to US\$7,006) half-year revolving loan. Out of this loan facility, the PRC subsidiary had utilized RMB50 million (equivalent to US\$7,006) as of December 31, 2019. Corporate guarantee of the Company and accounts receivable of certain subsidiaries of the Company are provided as pledge to secure the obligations under this revolving loan. The interest rate of this loan facility is fixed at 7% per annum.
- (xi) On December 20, 2019, the Company, through its PRC subsidiaries, entered into a facility agreement for working capital loans with a bank, which provides for a RMB50 million (equivalent to US\$7,006) one-year revolving loan. Out of this loan facility, the PRC subsidiary had utilized RMB30 million (equivalent to US\$4,204) as of December 31, 2019. Corporate guarantee of the Company and deposits of certain subsidiaries of the Company are provided as pledge to secure the obligations under this revolving loan. The interest rate of this loan facility is fixed at 4.95% per annum.
- (xii) As of December 31, 2019, no financial covenants (minimum monthly adjusted quick ratio and minimum quarterly earnings before interest, tax, depreciation and amortization ("EBITDA") as defined in the banking facilities agreements) as set out in these loan agreements have been breached.

The weighted average interest rate for bank loans outstanding as of December 31, 2018 and 2019 was 7.00% and 5.17% per annum, respectively. Other than those shown above, the Company did not have any significant capital and other commitments, long-term obligations, or guarantees as of December 31, 2018 and 2019.

**18 Convertible notes at fair value****(a) Convertible notes issued in 2018**

On September 12, 2018, the Company issued US\$30,000 of zero-coupon convertible notes ("the 2018 Notes") at par. The 2018 Notes mature on September 12, 2023 and are non-interest bearing, unless the 2018 Notes are redeemed or repaid upon the occurrence of events of default or relevant events as defined in the agreement whereby an interest of 5% per annum would be charged. The Company considers the likelihood of occurrence of events or relevant events as defined in the agreement to be remote.

Holder of the 2018 Notes has the option to convert the 2018 Notes at any time on or after October 22, 2018 up to the close of business of the maturity date (the "2018 Notes Conversion Period"). Any outstanding principal amount not converted within the 2018 Notes Conversion Period will mandatorily be converted on the maturity date. The 2018 Notes can be converted into the Company's ADSs at an conversion price of 92% of the lowest of (i) the volume weighted average prices ("VWAP") of the ADSs over the period from the issue date to the conversion date, (ii) the VWAP of the ADSs over the five trading day period preceding the conversion date, and (iii) a fixed price of US\$8. Notwithstanding the foregoing, in no event will the Conversion Price be less than US\$2.78. The Company will not issue any fractional ADSs upon conversion of the 2018 Notes and will instead pay cash in lieu of any fractional ADSs deliverable upon conversion.

If the VWAP of ADSs on the conversion date is lower than that on September 12, 2018, the Company may make an election to settle in whole by paying the holder of the 2018 Notes a cash alternative amount (which is equivalent to principal amount to be converted divided by 92%).

Notwithstanding anything to the contrary in the 2018 Notes, no ordinary shares (including ordinary shares represented by ADSs) will be delivered to the 2018 Notes holder if such delivery would result in the aggregate number of ordinary shares (including ordinary shares represented by ADSs) to be delivered taken together with the aggregate number of ordinary shares delivered by the Company since the issue date to exceed 19.9% of the Company's outstanding common stock as of the issue date (the "Share Cap"). In such event, the Company's obligation will be satisfied by delivering the maximum number of ADSs such that the delivery does not exceed the Share Cap and any portion of the principal amount that is not so converted will be settled by the Company by paying the cash settlement amount ("Cash Settlement Amount") to such converting holder. The Cash Settlement Amount is the remaining amount divided by 92%.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

## 18 Convertible notes at fair value (Continued)

## (a) Convertible notes issued in 2018 (Continued)

Concurrently with the issuance of the 2018 Notes, the Company offered a put option to the holder of the 2018 Notes, whereby the holder has the right to require the Company to repurchase all of the outstanding 2018 Notes for cash at a price equal to 100% of the outstanding principal amount plus accrued and unpaid interest to the repurchase date in case of the occurrence of any of the relevant events as defined in the agreement prior to the maturity date. The Company considers the likelihood of occurrence of such relevant events to be remote. The Company also concluded that the feature of contingent put options being considered clearly and closely related to its debt host does not need to be considered as an embedded derivative to be bifurcated.

For both the convertible debt and conversion option which are recognized as financial liabilities, the Company has elected the fair value option under ASC 825-10 to measure the entire instrument at fair value with realized or unrealized gains and losses recorded in the consolidated statements of comprehensive loss. Also, ASC 825-10-25-11 requires financial instrument that is legally a single contract not to be separated into parts for purposes of applying the fair value option.

Issuance costs related to the 2018 Notes for which the fair value option is elected amounting to US\$2,190 have been recognized in earnings as incurred during the year ended December 31, 2018 and not deferred in accordance with ASC 825-10-25-3.

On February 1, 2019 and March 1, 2019, the holder of the 2018 Notes partially converted the 2018 Notes with a principal amount of US\$1,000 and US\$2,000 into 283,888 ADSs and 536,594 ADSs at a conversion price of US\$3.52 per ADS and US\$3.73 per ADS, respectively. The fair values of these partially converted 2018 Notes as of February 1, 2019 and March 1, 2019 was US\$1,631 and US\$2,801, respectively. On August 22, 2019, there was a further conversion of the 2018 Notes of US\$3,000 in principal amount. Instead of issuing new ADSs, the Company elected the cash alternative election pursuant to the agreement of the 2018 Notes to satisfy the exercise of the holder's conversion right by making a cash alternative payment of US\$3,261 to the 2018 Notes holder.

In October 2019, the Company entered into a purchase agreement (the "Purchase Agreement") with the 2018 Notes holder, which entitled the Company an option exercisable by the Company to partially redeem US\$20 million in aggregate principal amount of the 2018 Notes at a cash consideration of US\$23.2 million in three stages in November 2019. In November 2019, there was an amendment to the Purchase Agreement ("Amended Purchase Agreement") made with a revised payment schedule for the partial redemption to be done in 4 stages from November 2019 to March 2020 (the "Revised Payment Schedule"). The Company has exercised the option and redeemed the 2018 Notes with a principal amount of US\$3,450 and US\$3,450 on November 14, 2019 and December 12, 2019, respectively, at a total of US\$8,004 in accordance with the Revised Payment Schedule. Subsequent to December 31, 2019, the Company has exercised the option to further redeem the 2018 Notes with a principal amount of US\$6,900 and US\$6,200 on February 3, 2020 and March 31, 2020, respectively, at a total of US\$15,196 in accordance with the Revised Payment Schedule.

The fair value of the 2018 Notes was determined using a Monte Carlo simulation with the key assumptions summarized in the below table. The volatility was based on the implied historical volatility of certain comparable companies. The risk-free interest rate is equal to the yield, as of the measurement date, of the zero-coupon U.S. Treasury bill that commensurates with the remaining period until the maturity of the 2018 Notes.

Measurement date	Volatility %	Risk-free rate %
December 31, 2018	44.32	2.52
February 1, 2019	44.59	2.55
March 1, 2019	44.99	2.62
August 22, 2019	43.86	1.47
November 14, 2019	44.34	1.61
December 12, 2019	43.86	1.71
December 31, 2019	44.17	1.67

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(US\$'000, except share data and per share data, or otherwise noted)

**18 Convertible notes at fair value (Continued)****(b) Convertible notes issued in 2019**

On November 11, 2019 and December 16, 2019, the Company issued 5% coupon convertible notes of US\$ 20,000 (the "November 2019 Notes") and US\$10,000 (the "December 2019 Notes") (collectively, the "2019 Notes"), respectively, at par. The November 2019 Notes and the December 2019 Notes mature on November 11, 2022 and December 16, 2022, respectively.

The following options are embedded to the 2019 Notes:

**(i) Buyer call conversion option**

Holders of the 2019 Notes have an option to convert the 2019 Notes at any time on or after November 11, 2020 (for the November 2019 Notes) or December 16, 2020 (for the December 2019 Notes) up to the close of business of the respective maturity date (the "Buyer Call Conversion Options"). The 2019 Notes can be converted into the Company's ADSs at an conversion price of the lower of (i) the VWAP of the ADSs over the 14 trading day period preceding the conversion date ("14-Day VWAP") plus a 10% premium, or (ii) a fixed price of US\$4.3, which is subject to adjustment if the Company's adjusted EBITDA for the year ending December 31, 2020 is less than US\$10,000 (the "Conversion Price"). Notwithstanding the foregoing, in no event will the Conversion Price be less than US\$3.2. The Company will not issue any fractional ADSs upon conversion and will instead pay cash in lieu of any fractional ADSs deliverable upon conversion.

**(ii) Seller call conversion option**

If the 14-Day VWAP is US\$5.00 or higher at any time on or after November 11, 2020 (for the November 2019 Notes) or December 16, 2020 (for the December 2019 Notes) up to the close of business on the fifth business day immediately preceding the respective maturity dates, the Company may require the holders of 2019 Notes to convert the entire outstanding principal amount (the "Seller Call Conversion Option") at the Conversion Price.

**(iii) Seller call redemption option**

At any time on or after the respective issue date up to the close of business on the 60th day immediately preceding the maturity date, the Company may at its option redeem all or a portion of the outstanding principal amount ("Seller Call Redemption Option").

**(iv) Seller put redemption option**

The holders of the 2019 Notes have an option to require the Company to redeem all of the outstanding principal amount of the 2019 Notes for cash at a price equal to 100% of the outstanding principal amount plus accrued and unpaid interest to the repurchase date in case of the occurrence of any of the relevant events as defined in the agreements of the 2019 Notes prior to the respective maturity dates (the "Seller Put Redemption Options").

The Company concluded that the features of the Seller Call Redemption Option and Seller Put Redemption Option being considered clearly and closely related to its debt host do not need to be considered as embedded derivatives to be bifurcated.

The 2019 Notes, Buyer Call Conversion Option and Seller Call Conversion Option are all financial liabilities and the Company has elected the fair value option under ASC 825-10 to measure the entire instrument at fair value with realized or unrealized gains and losses recorded in the consolidated statements of comprehensive loss. Also, ASC 825-10-25-11 requires financial instrument that is legally a single contract not to be separated into parts for purposes of applying the fair value option.

Issuance costs related to the 2019 Notes for which the fair value option is elected amounting to US\$4,556 in aggregate have been recognized in earnings as incurred and not deferred in accordance with ASC 825-10-25-3.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

**18 Convertible notes at fair value (Continued)****(b) Convertible notes issued in 2019 (Continued)**

The fair values of the 2019 Notes as of December 31, 2019 were determined using a binomial model with the key assumptions summarized in the below table. The volatility was based on the implied historical volatility of certain comparable companies. The risk-free interest rate is equal to the yield, as of the respective measurement dates, of a 5% coupon U.S. Treasury bill that is commensurate with the remaining period until the maturity of the 2019 Notes. The bond yield was based on the yield of corporate bonds with comparable ratings.

	Volatility		Risk-free rate		Bond yield	
		%		%		%
November 2019 Notes		42.53		1.61		10.09
December 2019 Notes		42.63		1.61		10.09

Subsequent to December 31, 2019, the holders of both the November 2019 Notes and December 2019 Notes have elected to convert the entire outstanding principal amount of the 2019 Notes into Class A ordinary shares, par value US\$0.001 per share, of the Company at a price of US\$7.8 per share, which is at an approximately 7% premium to the 14-day VWAP of the Company's ADSs as of February 14, 2020.

**19 Redeemable convertible preferred shares***Series A preferred shares*

On February 17, 2010, the Company entered into an agreement ("Series A Agreement") to issue Series A preferred shares and preferred share warrants to a third-party investor ("Investor A") for a total cash consideration of US\$1,200. Accordingly, the Company issued 1,142,857 Series A preferred shares at US\$1.05 per share; and warrants to purchase 342,857 Series A preferred shares at US\$1.05 per share ("Series A Warrants") at the option of Investor A. Pursuant to the Series A Agreement, the Company also granted an option, exercisable within one year from the date of agreement, to Investor A where the Company would issue 761,905 Series A preferred shares at US\$1.05 per share ("Series A-1 preferred shares") and warrants to purchase 228,571 Series A preferred shares at US\$1.05 per share ("Series A-1 Warrants") at the option of Investor A. On September 29, 2010, Investor A exercised the option and the Group received a total consideration of US\$800. During the year ended December 31, 2013, both Series A Warrants and Series A-1 Warrants were fully exercised.

In December 2017, Series A preferred shares had been automatically converted into 2,476,190 Class A ordinary shares after closing of IPO.

*Series B preferred shares*

On February 21, 2011, the Company entered into agreements ("Series B Agreements") to issue Series B preferred shares and preferred share warrants to two other third-party investors ("Investors B") for an aggregate cash consideration of US\$7,000. Pursuant to the Series B Agreements, the Company issued 1,266,667 Series B preferred shares at US\$5.53 per share; and warrants to purchase 542,858 Series B preferred shares at US\$5.53 per share ("Series B Warrants") at the option of Investors B. During the year ended December 31, 2013, the Series B Warrants were fully exercised.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

(US\$'000, except share data and per share data, or otherwise noted)

**19 Redeemable convertible preferred shares (Continued)**

*Series B preferred shares (Continued)*

On May 16, 2011, the Company entered into an agreement ("Series B-1 Agreement") to issue additional Series B preferred shares to another third-party investor ("Investor B-1") for a total consideration of US\$4,285 ("Series B-1 preferred shares"). Pursuant to the Series B-1 Agreement, the Company issued 723,808 Series B-1 preferred shares at US\$5.92 per share.

On September 24, 2015, the Company repurchased from Investor B-1 723,808 Series B-1 preferred shares at a consideration of US\$11,581.

For accounting purposes, the Company determined the per share fair value of Series B-1 preferred shares to be US\$19.58 on September 24, 2015, the date of repurchase. The per share repurchase price of US\$16.00 was mutually negotiated at the time of the repurchase transaction. There were no other arrangements with Investor B-1. Investor B-1 was willing to sell its Series B-1 preferred shares at the US\$16.00 per share price as it would provide liquidity to Investor B-1. For the Series B-1 preferred shares repurchased, the Company recorded the excess of purchase price over the carrying value of US\$2,591 to accumulated deficit as deemed contribution from Series B-1 preferred shareholders.

In December 2017, Series B preferred shares had been automatically converted into 1,889,249 Class A ordinary shares after closing of IPO.

*Series C preferred shares*

On December 16, 2013, the Company entered into an agreement ("Series C Agreement") to issue Series C preferred shares to another third-party investor ("Investor C") for a total cash consideration of US\$13,000. Pursuant to the Series C Agreement, the Company issued 1,599,186 Series C preferred shares at US\$8.13 per share.

In December 2017, Series C preferred shares had been automatically converted into 1,599,186 Class A ordinary shares after closing of IPO.

*Series D preferred shares*

On December 30, 2014, the Company entered into an agreement ("Series D Agreement") to issue Series D preferred shares to another third-party investor ("Investor D") for a total cash consideration of US\$48,000. Pursuant to the Series D Agreement, the Company issued 2,493,018 Series D preferred shares at US\$19.25 per share.

The Company was also obligated to issue additional Series D preferred shares to Investor D at no consideration, the total number of which is based on a formula stipulated in the agreement, if the gross billing of the Group as defined in the Series D Agreement for the year ended December 31, 2018 is less than US\$85,000. Considering the gross billing of the Group as defined in the Series D Agreement for the year ended December 31, 2018 was more than US\$85,000, no additional Series D preferred shares were issued.

In December 2017, Series D preferred shares had been automatically converted into 2,493,018 Class A ordinary shares after closing of IPO.

*Series E preferred shares*

On December 28, 2016, the Company entered into an agreement ("Series E Agreement") to issue Series E preferred shares to another third-party investor ("Investor E") for a total cash consideration of US\$20,000. Pursuant to the Series E Agreement, the Company issued 1,068,114 Series E preferred shares at US\$18.72 per share.

In December 2017, Series E preferred shares had been automatically converted into 1,068,114 Class A ordinary shares after closing of IPO.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**  
(US\$'000, except share data and per share data, or otherwise noted)

**19 Redeemable convertible preferred shares (Continued)**

*Series E preferred shares (Continued)*

The key terms of the Series A, B, C, D and E preferred shares are as follows:

*Dividend rights*

Subject to the approval and declaration by the Board of Directors, the holders of the preferred shares are entitled to receive dividends in the following order:

- Series E preferred shareholders are entitled to receive dividends at an amount equal to 8% of the issue price prior to and in preference to any dividend on the Series D preferred Shares, Series B preferred shares, Series A preferred shares, Series C preferred shares and ordinary shares or any other class or series of shares
- the Series D preferred shareholders are entitled to receive dividends at an amount equal to 8% of the issue price prior to and in preference to any dividends on the Series B, Series A and Series C preferred shares and ordinary shares or any other class or series of shares;
- the Series B preferred shareholders are entitled to receive dividends at an amount equal to 8% of the issue price prior to and in preference to any dividends on the Series A and Series C preferred shares and ordinary shares or any other class or series of shares;
- the Series A preferred shareholders are entitled to receive dividends at an amount equal to 8% of the issue price prior to and in preference to any dividends on the Series C preferred shares and ordinary shares or any other class or series of shares;
- any remaining dividends shall be distributed on a pro rata basis to holders of all the preferred shares and ordinary shares on a fully diluted and as-if converted basis.

*Voting rights*

The holders of the Series A, B, C, D and E preferred shares shall be entitled to such number of votes equal to the whole number of ordinary shares into which such Series A, B, C, D and E preferred shares are convertible.

*Liquidation preference*

In the event of a liquidating transaction as defined in the Company's Memorandum and Articles of Association as 1) a winding up or other dissolution of the Company or any of its subsidiaries, 2) a merger or acquisition of the Company or any of its subsidiaries in which the shareholders of the Company do not directly or indirectly own a majority of the outstanding shares of the surviving corporation, 3) a sale of all or substantially all of the assets of the Company or assets of its subsidiaries, or 4) government policies promulgated or interpreted after the closing that prohibit investment or exit of the Company by foreign investors, provided, that, in the case of 2) and 3), only when such merger, acquisition or sale implies a valuation of the Company on a fully diluted basis of less than US\$550,000, available assets and funds are distributed as following manner.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

## 19 Redeemable convertible preferred shares (Continued)

*Liquidation preference (Continued)*

The holders of Series E, Series D, Series B and Series A preferred shares are entitled to receive an amount equal to i) 110% prior to or on December 28, 2017 or ii) 120% from January 1, 2018, 150%, 150% and 200%, respectively, of the issue price as defined in the Company's Memorandum and Articles of Association (adjusted for share dividends, splits, combinations, recapitalizations or similar events, and plus all accrued or declared but unpaid dividends thereon minus all paid cash or non-cash dividends and distributions paid thereon since issue date). If the assets of the Company shall be insufficient to make the payment of the amount in full, then the assets of the Company shall be distributed ratably to the holders of preferred shares in proportion to the amount each holder would otherwise be entitled to receive in order of 1) Series E, 2) Series D, 3) Series B and then 4) Series A.

If the liquidating transaction is a qualified merger or acquisition of the Company in which the shareholders of the Company do not directly or indirectly own a majority of the outstanding shares of the surviving corporation or a sale of all or substantially all of the assets of the Company, in each case, which implies i) an equity valuation of the Group of US\$300,000 or higher, the distribution to the holders of Series B and Series A preferred shares shall be reduced to 0% of issue price or ii) an equity valuation of the Group of US\$250,000 or higher, but lower than US\$300,000, the distribution to the holders of Series B and Series A preferred shares shall be reduced to 100% of issue price as defined in the Company's Memorandum and Articles of Association.

After the full amount has been paid to holders of Series E, Series D, Series B and Series A, any remaining funds or assets of the Company legally available for distribution shall be distributed pro rata among the holders of preferred shares on an as-converted basis together with the holders of the ordinary shares.

*Conversion rights*

Each share of the Series A, B, C, D and E preferred shares is convertible at the option of the holder, at any time after the issuance of such shares, and each share can be converted into one ordinary share of the Company. The conversion is subject to adjustments for certain events, including but not limited to additional equity securities issuance share dividends, distribution, subdivisions, redemptions, combinations, or consolidation of ordinary shares. The conversion price is also subject to adjustment in the event the Company issues additional ordinary shares at a price per share that is less than such conversion price. In such case, the conversion price shall be reduced to adjust for dilution on a weighted average basis.

In addition, each share of the Series A, B, C, D and E preferred shares would automatically be converted into ordinary shares of the Company (i) upon the closing of an initial public offering of the Company's shares or (ii) upon the election of holders of at least a majority of the then issued and outstanding preferred shares, voting together as a single class on an as-if-converted basis.

The Company has determined that there was no BCF attributable to the Series A, A-1, B, B-1, C, D and E preferred shares because the accounting conversion of these preferred shares upon issuance were higher than the fair value of the Company's ordinary shares as determined by the Company with the assistance from an independent valuation.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

**19 Redeemable convertible preferred shares (Continued)***Anti-dilution provision*

Pursuant to the provisions of Series B Agreement, there is an anti-dilution provision which prevents the original ownership interest of ordinary shares, Series B preferred shares and Series B preferred share warrants (as if converted into Series B preferred shares) owned by Investors B to be diluted.

In May 2011, the Company issued 457,611 ordinary shares of the Company to Mr. Cong and Mr. Liu in exchange for Mr. Cong and Mr. Liu would procure the grant of an exclusive reseller agreement from Baidu Online Network Technology (Beijing) Co. Ltd. ("Baidu") for Hong Kong, Macau, Taiwan and Singapore for a period up to December 31, 2012. In accordance with the Series B Agreement, the issuance of the ordinary shares was considered an event which triggered the anti-dilution provision. As a result, the Company was required to issue additional 100,452 ordinary shares and 55,807 Series B preferred shares and to amend the conversion price of Series B preferred share warrants to maintain the original ownership interests of these ordinary shares, preferred shares and preferred shares warrants owned by Investors B. There were no BCF for the issuance of additional Series B preferred shares and the value of the additional ordinary shares and Series B preferred shares issued amounted to US\$421 and US\$320, respectively, was charged to additional paid-in capital as a deemed dividend.

Although the anti-dilution provision was triggered in May 2011, the Company only issued the additional ordinary shares and Series B preferred shares in May 2013. Accordingly, the Company recorded such obligation to issue additional ordinary shares and Series B preferred shares as liabilities until the corresponding ordinary shares and preferred shares were issued in May 2013.

*Redemption right*

The Series A and B preferred shares are redeemable at any time after the earlier of: (i) the 4th anniversary of the closing of sale and purchase of the Series A Agreement and Series B Agreement, respectively; or (ii) the occurrence of a material breach as defined in the subscription agreements.

The holders of Series C preferred shares can redeem the preferred shares at any time after the earlier of: (i) the 2<sup>nd</sup> anniversary of the closing of sale and purchase of the Series C Agreement; (ii) the occurrence of any liquidating transaction as defined in the subscription agreements; (iii) Mr. Hsieh, Wing Hong Sammy, ceasing to exert day-to-day management and operational control over the Group; or (iv) any holder of the Series B preferred shares or the Series A preferred shares or the Series D preferred shares or the Series E preferred shares electing for redemption.

The holders of Series D preferred shares can redeem the preferred shares at any time after the earlier of: (i) the 2<sup>nd</sup> anniversary of the closing of sale and purchase of the Series D preferred shares; (ii) the occurrence of any liquidating transaction as defined in the subscription agreements; (iii) Mr. Hsieh, Wing Hong Sammy, ceasing to exert day-to-day management and operational control over the Group; (iv) the occurrence of material breach of any warranty and covenants specified in the Series D Agreement; or (v) any holder of the Series A, Series B, or Series C preferred shares electing for redemption.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

## 19 Redeemable convertible preferred shares (Continued)

*Redemption right (Continued)*

The holders of Series E preferred shares can redeem the preferred shares at any time after the earlier of: (i) the occurrence of any liquidating transaction as defined in the subscription agreements; (ii) the failure of the Group to achieve the following targets: (1) the audited consolidated revenues from the principal business (excluding any non-operating and non-recurring revenue) of the Group as of and for the twelve months ending on December 31, 2018 being no less than US\$200,000; and (2) the audited consolidated revenues from the principal business (excluding any non-operating and non-recurring revenue) of the Group as of and for the twelve months ending on December 31, 2019 being no less than US\$300,000; (iii) the termination of the employment with the relevant Group Company by Mr. Hsieh, Wing Hong Sammy, Tang Jian or Lee, Yanshu before the consummation of a Qualified IPO as defined in the Company's Memorandum and Articles of Association (i.e. the first firm commitment underwritten registered public offering by the Company of its ordinary shares for its own account that results in such securities being listed or registered on NASDAQ, New York Stock Exchange, Hong Kong Stock Exchange, the Shenzhen Stock Exchange, Shanghai Stock Exchange or such other international recognized stock exchange approved in writing by certain of its preferred shareholders with an implied market capitalization of the Company immediately prior to such offering of not less than US\$600 million; and which results in aggregate net proceeds to the Company of not less than US\$150 million); (iv) the failure of the Company to consummate a Qualified IPO prior to or on June 30, 2018 (iv) the occurrence of material breach of any warranty and covenants specified in the Series E Agreement; or (v) any holder of the Series A, Series B, Series C or Series D preferred shares electing for redemption.

The redemption price for Series A and B preferred shares is equal to the greater of (1) 200% or 150%, respectively, of the original issue price (plus all declared but unpaid dividends) or (2) the fair market value of the preferred shares subject to redemption as determined by an independent appraiser. With respect to the redemption price for Series C preferred shares, it is equal to 200% of the original issue price (proportionally adjusted for share splits and stock dividends). For the redemption price for Series D preferred shares, it shall be equal to the greater of (1) a price reflecting an implied valuation (on a fully-diluted basis) of the Company at US\$500,000, (2) the highest redemption price that would have been received by any other shareholders of the Company if their shares have become redeemable (proportionally adjusted for share splits and stock dividends), or (3) a price reflecting the implied valuation (on a fully-diluted basis) of the Company used in any liquidating transaction as defined in the Company's Memorandum and Articles of Association. For the redemption price for Series E preferred shares is equal to the greater of (1) 100% of the Series E issue price, plus 9.5% annual compound interest thereon calculated from the Series E original issue date to the date of receipt of the Series E redemption price, plus all declared but unpaid dividends thereon to the date of redemption, proportionally adjusted for stock splits, stock dividends, and the like, or (2) the highest redemption price that would have been received by any other shareholder of the Company if their shares have become redeemable, proportionally adjusted for stock splits, stock dividends, or (3) a price reflecting the implied valuation (on a fully-diluted basis) of the Company used in any Liquidating Transaction as defined in the Company's Memorandum and Articles of Association.

Upon the completion of Series D Agreement, the redemption date of Series A, A-1, B, B-1 and C preferred share was changed to December 30, 2016. The redemption date of Series A, A-1, B, C and D preferred share was further changed to December 28, 2018 upon the completion Series E Agreement. Such change was considered as a modification and no gain or loss was recorded. However, considered the modification was occurred in connection with the issuance of Series D preferred shares and Series E preferred shares, there was a transfer of value from the existing preferred shareholders to new preferred shareholders and ordinary shareholders. With respect to the modification relating to the issuance of Series D preferred share, the transfer of value was considered insignificant. For the modification relating to the issuance of Series E preferred share, the transfer of value was recorded from additional paid in capital to retained earnings.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

(US\$'000, except share data and per share data, or otherwise noted)

**19 Redeemable convertible preferred shares (Continued)***Redemption right (Continued)*

The Company has determined that the Series A, A-1, B, B-1, C, D and E preferred shares should be classified as mezzanine equity after considering the features of the preferred shares as described above. The conversion features and redemption features as mentioned below, Series A Warrants, Series A-1 Warrants and Series B Warrants are initially measured at its fair value and the initial carrying value for Series A, A-1, B, B-1, C, D and E preferred shares is allocated on a residual basis as the warrants are liability classified. There were no BCF for the Series A, A-1, B, B-1, C, D and E preferred shares.

The Company has determined that conversion feature embedded in the Series A, A-1, B, B-1, D and E preferred share is required to be bifurcated and accounted for as derivative liabilities as the economic characteristics and risks of the embedded conversion are not clearly and closely related to that of the preferred shares and there is a mechanism in place for net settlement. However, Series C preferred shares does not have a mechanism in place for net settlement and therefore, bifurcation is considered unnecessary.

The Company has also determined the redemption feature embedded in the Series C, D and E preferred shares is required to be bifurcated and accounted for as derivative liabilities as the economic characteristics and risk of the embedded redemption features are not clearly and closely related to that of the preferred shares. For Series A, A-1, B and B-1 preferred shares, the corresponding redemption feature is not required to be bifurcated and accounted for as derivative liabilities as the economic characteristic and risk of the embedded redemption feature are clearly and closely related to that of the preferred shares.

Due to the redemption features described above with respect to Series A, A-1, B and B-1 preferred shares, the Company recognizes the changes in the redemption value immediately as they occur by way of accreting their respective carrying amounts to the redemption value to the first redemption date, using the effective interest method. The accretion is recorded against retained earnings, or in the absence of retained earnings, by charges against additional paid in capital. Once additional paid-in capital has been exhausted, additional charges are recorded by increasing the accumulated deficit of the Company.

In December 2017, preferred shares had been automatically converted into Class A ordinary shares after the closing of IPO. Accretion to convertible redeemable preferred shares redemption value of US\$3,650 and fair value losses on derivative liabilities of US\$10,190 were recorded in the year ended December 31, 2017.

**20 Redeemable ordinary shares**

On December 30, 2014, concurrent with the issuance of Series D preferred shares to Investor D, the Company issued 742,320 ordinary shares to Investor D at US\$16.17 per share, of which 99,022 shares were transferred from treasury shares held by the Company and 643,298 shares were newly issued shares. The aggregate consideration was US\$12,000.

Investor D shall have an option to require the Company to repurchase all of the ordinary shares if a qualified IPO is not consummated by the 2nd anniversary of the closing of sale and purchase of the Series D preferred shares. The redemption price shall equal to the issue price, plus accrued interest at a non-compound interest rate of 12% per annum. In December 2016, the redeemable date of the ordinary shares was further changed to December 28, 2017 upon the completion of Series E Agreement. The change in value of such modification was insignificant.

As these ordinary shares are contingently redeemable, they are classified as mezzanine equity. The Company recognizes the accretion charge using the effective interest method.

In December 2017, redeemable ordinary shares had been automatically converted into 742,320 Class A ordinary shares after the closing of IPO. Accretion to redeemable ordinary shares redemption value of US\$3,650 was recorded in the year ended December 31, 2017.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

## 21 Ordinary shares

The Company's Memorandum and Articles of Association authorizes the Company to issue 100,000,000 shares of US\$0.001 par value per ordinary share as of December 31, 2018 and 2019, respectively. Each ordinary share is entitled to one vote in shareholders meeting of the Company. The holders of ordinary shares are also entitled to receive dividends whenever funds are legally available and when declared by the board of directors, which is subject to the approval by the holders of the number of ordinary shares and Series A, B, C, D and E preferred shares representing a majority of the aggregate voting power of all outstanding shares. As of December 31, 2018 and 2019, there were 27,986,700 and 28,690,635 ordinary shares outstanding, respectively.

At the time the Company adopted the 2010 Employee Share Option Plan (the "2010 Share Option Plan") and 2018 Post IPO Share Incentive Plan, the Company, together with the then shareholders, also decided to allot ordinary shares with par value of US\$0.001 to Arda Holdings Limited ("Arda"), a British Virgin Islands company owned by the Group's chairman at no consideration. Arda will only hold these ordinary shares on trust for the benefit of the employees who are under the 2010 Share Option Plan and 2018 Post IPO Share Incentive Plan and the dealing of these ordinary shares is under the direction of the board of directors of the Company. The Company considered Arda to be a variable interest entity as this entity has no equity at risk. The Company further considered that it is the primary beneficiary because the purchase of Arda is to hold treasury shares on behalf of the Company and the dealings of those transactions are under the direction of the Company's board of directors. Given the structure of this arrangement, while these ordinary shares have been legally issued, they do not bear the attributes of unrestricted, issued and outstanding shares. Therefore, the ordinary shares issued to Arda are accounted for as treasury shares of the Company until these ordinary shares are earned by the Company's employees, officers, directors or consultants for service provided to the Group. The Company allotted 627,811 shares during the year the 2010 Share Option Plan was adopted. No additional shares have been allotted during the years ended December 31, 2017, 2018 and 2019 to Arda. Arda does not hold any other assets or liabilities as of December 31, 2018 and 2019, nor earn any income nor incur any expenses for the years ended December 31, 2017, 2018 and 2019.

In December 2017, the Company completed its initial public offering in which the Company newly issued 2,156,250 Class A ordinary shares and all of the Company's Series A, Series B, Series C, Series D, Series E preferred shares and redeemable ordinary shares were automatically converted into 10,268,077 Class A ordinary shares.

Immediately prior to the completion of IPO in December 2017, the Company redesignated 2,500,580 Class A ordinary shares held by Wing Hong Sammy Hsieh and 2,320,028 Class A ordinary shares held by Jian Tang into Class B ordinary shares on a one-for-one basis. The holders of Class A ordinary shares shall have one vote in respect of each Class A ordinary share held, the holders of Class B ordinary shares shall have twenty votes in respect of each Class B ordinary share held.

As of December 31, 2018 and 2019, the Company is authorized to issue 100,000,000 shares of US\$0.001 par value per ordinary share, out of which 80,000,000 shares are Class A ordinary shares and 20,000,000 shares are Class B ordinary shares.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

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**Repurchase of shares**

In November 2018, the board of directors of the Company authorized a share repurchase program (the "2018 Share Repurchase Program") whereby the Company may repurchase up to US\$10,000 of the common shares or ADSs of the Company from November 28, 2018 to November 27, 2019. The share repurchases may be made on the open market at prevailing market prices, in negotiated transactions off the market, and/or in other legally permissible means from time to time as market conditions warrant in compliance with applicable requirements of Rule 10b5-1 and/or Rule 10b-18 under the U.S. Securities Exchange Act of 1934, as amended, at times and in such amounts as the Company deems appropriate. The Company has publicly announced the 2018 Share Repurchase Program on November 28, 2018.

The following table is a summary of the shares repurchased by the Company during 2018 and 2019 under the 2018 Share Repurchase Program. All shares were purchased through publicly purchasing from the open market pursuant to the 2018 Share Repurchase Program.

<b>Period</b>	Total number of ADSs purchased as part of the publicly announced plan	Average price paid per ADS
December 2018	10,000	3.7175
<b>For the year ended December 31, 2018</b>	<u>10,000</u>	
March 2019	13,240	3.721
May 2019	5,300	3.844
June 2019	9,471	3.818
July 2019	356,882	3.809
August 2019	273,099	3.354
September 2019	66,018	3.028
October 2019	244,376	3.067
November 2019	333,526	3.230
<b>For the year ended December 31, 2019</b>	<u>1,301,912</u>	

During the years ended December 31, 2017, 2018 and 2019, nil, 10,000 and 1,301,912 ADSs were repurchased at an aggregate consideration of US\$nil, US\$37 and US\$4,414 under the Repurchase Program. The remaining unused amount of US\$5,549 was no longer be available for repurchase after November 27, 2019.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

## 23 Share-based compensation

## (a) Share option plan

The Company's 2010 Share Option Plan provides for the grant of incentive share options to the Company's employees, officers, directors or consultants. The Company's board of directors administers the 2010 Share Option Plan, selects the individuals to whom options will be granted, determines the number of options to be granted, and the term and exercise price of each option.

During the year ended December 31, 2017, the Company granted share options to non-employees, employees, officers and directors of the Group. These options were granted with exercise prices denominated in the US\$, which is the functional currency of the Company. There were no share options granted during the years ended December 31, 2018 and 2019. The table below sets forth information regarding share options granted during the year ended December 31, 2017:

Grant Date	Number of share options	Term (year)	Vesting period (year)	Exercise price at grant date (US\$)
January 1, 2017	4,400	10.01	4.00	20.0000
January 1, 2017 (Note ii)	180,000	10.01	1.67	0.0010
January 1, 2017	100,800	10.01	4.00	8.1290
April 1, 2017	5,000	10.01	4.00	12.0000
July 1, 2017	12,000	8.51	2.50	8.1290

- (i) The Company modified certain terms of the options in 2017 previously granted on February 1, 2015, which these modifications were related to either the vesting period or the exercise price. The incremental costs resulting from such modifications were assessed to be insignificant.
- (ii) The Company modified certain terms of the options in 2018 previously granted on January 1, 2015 and January 1, 2017, respectively, which these modifications were related to the vesting period and the exercise price. The incremental costs recognized as share-based compensation expense during the year ended December 31, 2018 resulting from such modifications were US\$1,495.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

## 23 Share-based compensation (Continued)

## (a) Share option plan (Continued)

The following table summarizes the share option activities for the years ended December 31, 2017, 2018 and 2019:

	Number of share options	Weighted average exercise price US\$	Weighted average grant date fair value US\$	Weighted average remaining contractual life years	Aggregate intrinsic value US\$'000
At January 1, 2017	1,492,185	5.23		7.80	18,631
Granted	302,200	8.37	11.67		
Exercised	(25,898)	2.37			
Forfeited	(225,911)	7.34			
At December 31, 2017	<u>1,542,576</u>	<u>5.62</u>		<u>7.24</u>	<u>19,387</u>
Vested and expected to vest at December 31, 2017	1,199,712	4.75	10.71	6.55	16,081
Exercisable to vest at December 31, 2017	1,118,812	4.72	11.35	6.87	15,035
At January 1, 2018	1,542,576	5.62		7.24	19,387
Exercised	(503,712)	1.28			
Forfeited	(130,455)	9.19			
At December 31, 2018	<u>908,409</u>	<u>7.52</u>		<u>6.27</u>	<u>2,724</u>
Vested and expected to vest at December 31, 2018	862,372	4.69	11.39	5.58	2,793
Exercisable to vest at December 31, 2018	823,341	4.52	12.02	5.88	2,634
At January 1, 2019	908,409	7.52		6.27	2,724
Exercised	(135,281)	1.25			
Forfeited	(105,261)	11.46			
At December 31, 2019	<u>667,867</u>	<u>8.16</u>		<u>5.27</u>	<u>1,807</u>
Vested and expected to vest at December 31, 2019	660,247	4.72	12.08	5.14	780
Exercisable to vest at December 31, 2019	657,142	4.54	12.78	5.64	800

Forfeitures are estimated at the time of grant. If necessary, forfeitures are revised in subsequent periods if actual forfeitures differ from those estimates. Based upon the Company's historical and expected forfeitures for share options granted, the directors of the Company estimated that its future forfeiture rate would be 11% and 9% for employees and 17% and 58% for senior management in 2018 and 2019, respectively.

The aggregate intrinsic value in the table above represents the difference between the estimated fair values of the Company's ordinary shares as of December 31, 2018 and 2019 and the exercise price.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

## 23 Share-based compensation (Continued)

## (a) Share option plan (Continued)

All share-based payments to employees are measured based on their grant-date fair values. Compensation expense is recognized based on the vesting schedule over the requisite service period. Total fair values of options vested and recognized as expenses for the years ended December 31, 2017, 2018 and 2019 were US\$3,681, US\$5,349 and US\$784, respectively.

As of December 31, 2018 and 2019, there were 150,000 share options granted to certain employees which the vesting was subject to the earlier occurrence of any of the following events, either: the Company being approved to be listed on a stock exchange with an expected market capitalization of no less than US\$500,000; or (ii) a merger or acquisition of the Company or any of its subsidiaries at a valuation of US\$500,000 or above in which the shareholders of the Company shall no longer hold a majority of the outstanding shares of the surviving corporation. None of the options were vested as of December 31, 2018 and 2019.

As of December 31, 2018 and 2019, there were US\$921 and US\$96 of unrecognized share-based compensation expenses related to share options, which were expected to be recognized over a weighted-average vesting period of 1.14 and 0.86 years, respectively. To the extent the actual forfeiture rate is different from the Company's estimate, the actual share-based compensation related to these awards may be different from the expectation.

The binomial option pricing model is used to determine the fair value of the share options granted to employees and non-employees. There were no grant or modification of share options during the year ended December 31, 2019. The fair values of share options granted/modified during the years ended December 31, 2017 and 2018 were estimated using the following assumptions:

Date	Risk-free interest rate (Note i)	Dividend yield (Note ii)	Volatility rate (Note iii)	Expected term (in years) (Note iv)
Granted during the year ended December 31, 2017:				
January 1, 2017	2.67%	0%	50.75%	NA
April 1, 2017	2.59%	0%	50.79%	NA
July 1, 2017	2.35%	0%	47.59%	NA
Modified during the year ended December 31, 2018:				
September 1, 2018 (Note v)	2.83%	0%	42.72%	NA
September 1, 2018 (Note vi)	2.92%	0%	44.65%	NA

## Notes:

- (i) The risk-free interest rate of periods within the contractual life of the share option is based on the yield of US Treasury Strips sourced from Bloomberg as of the valuation dates.
- (ii) The Company has no history or expectation of paying dividends on its ordinary shares.
- (iii) Expected volatility is estimated based on the average of historical volatilities of the comparable companies in the same industry as of the valuation dates.
- (iv) The time to expire is assumed to be the option's contractual term while early exercise multiples, being 2.2x and 2.8x for general staff and management staff, respectively, and post-vesting employment termination behavior have been factored into the model to derive the fair values of the share options.
- (v) It refers to the modification of options previously granted on January 1, 2015.
- (vi) It refers to the modification of options previously granted on January 1, 2017.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

## 23 Share-based compensation (Continued)

## (b) Post-IPO share incentive plan

The Company's post-IPO share incentive plan provides for the grant of incentive share options and RSUs to the Company's employees, officers, directors or consultants. The Company's board of directors administers the post-IPO share incentive plan, selects the individuals to whom options and RSUs will be granted, determines the number of options and RSUs to be granted, and the term and exercise price of each option and RSU.

During the years ended December 31, 2018 and 2019, the Company granted RSUs to non-employees, employees, officers and directors of the Group. There were no RSUs granted during the year ended December 31, 2017. The table below sets forth information regarding RSUs granted during the years ended December 31, 2018 and 2019:

Grant Date	Number of RSUs	Vesting period (year)
September 1, 2018 (Note i)	514,991	0.01
September 17, 2018 (Note i)	53,686	0.03
September 17, 2018 (Note vi)	23,452	0.29
October 25, 2018 (Note i)	100,000	0.02
October 25, 2018 (Note vi)	5,000	0.18
October 29, 2018 (Note vi)	431,760	0.01
October 25, 2018 (Note vi)	138,855	0.00
October 25, 2018 (Note iii)	105,000	3.19
October 25, 2018 (Note iii)	37,500	2.19
October 25, 2018 (Note v)	75,000	-
July 1, 2018 (Note iv)	22,000	3.50
July 1, 2018 (Note iv)	118,020	4.00
October 1, 2018 (Note iv)	1,800	4.00
July 1, 2018 (Note vii)	260,810	0.49
July 1, 2018 (Note vii)	12,500	0.54
December 14, 2018 (Note iii)	50,000	2.00
January 1, 2019 (Note iv)	15,000	3.58
January 1, 2019 (Note iv)	55,050	3.58
January 3, 2019 (Note iv)	6,000	3.99
January 3, 2019 (Note iv)	4,000	3.99
April 1, 2019 (Note iv)	22,540	4.00
April 1, 2019 (Note iv)	27,260	4.00
April 1, 2019 (Note iv)	34,540	4.00
April 1, 2019 (Note iv)	33,290	4.00
July 1, 2019 (Note iv)	1,800	4.00
July 1, 2019 (Note iii)	45,000	3.00
July 1, 2019 (Note iii)	6,000	3.00
October 1, 2019 (Note iv)	4,000	4.00
December 1, 2019 (Note iii)	10,000	2.00
December 1, 2019 (Note viii)	15,000	1.00

Notes:

- (i) These RSUs were granted to non-employees for their past services and immediately vested on grant date.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

## 23 Share-based compensation (Continued)

## (b) Post-IPO share incentive plan (Continued)

Notes: (Continued)

- (ii) These RSUs were granted to employees for their past services and immediately vested on the grant date.
- (iii) These RSUs were scheduled to be vested over two to three years on a monthly basis.
- (iv) These RSUs were scheduled to be vested over four years. One-fourth of the awards shall be vested upon the end of the first semi-anniversary dates of the grants or the first anniversary dates of the grants, and the remaining of the awards shall be vested on straight-line basis at the end of the remaining anniversary years.
- (v) On October 25, 2018, the Company authorized and communicated the issuance of RSUs to an officer of the Company which are subject to certain market conditions based on achievement of average closing stock prices. The Company determines the grant-date fair value of these RSUs using the Monte Carlo simulation model utilizes multiple input variables to determine the stock-based compensation expense. The fair value of each of these RSUs was US\$5, as determined using a Monte Carlo simulation with the following assumptions: a historical volatility of 37.02%, 0% dividend yield and a risk-free interest rate of 2.90%. The historical volatility was based on the average volatility of the comparable companies for the most recent 2-year period. The stock price projection for the Company assumes a 0% dividend yield. This is mathematically equivalent to reinvesting dividends in the issuing entity over the performance period. The risk-free interest rate is equal to the yield, as of the measurement date, of the zero-coupon U.S. Treasury bill that is commensurate with the remaining performance measurement period. None of these RSUs were forfeited or expired during the years ended December 31, 2018 and 2019.
- (vi) These RSUs were granted to non-employees and vested within one year.
- (vii) These RSUs were granted to employees and vested within one year.
- (viii) On December 1, 2019, the Company authorized and communicated the issuance of RSUs to an external consultant which are subject to certain market conditions based on achievement of 20-day VWAP of the ADSs. The Company determines the grant-date fair value of these RSUs using the Monte Carlo simulation model utilizes multiple input variables to determine the stock-based compensation expense. The fair value of each of these RSUs was US\$1.3, as determined using a Monte Carlo simulation with the following assumptions: a historical volatility of 50.17%, 0% dividend yield and a risk-free interest rate of 1.72%. The historical volatility was based on the average volatility of the comparable companies for the most recent 1-year period. The stock price projection for the Company assumes a 0% dividend yield. This is mathematically equivalent to reinvesting dividends in the issuing entity over the performance period. The risk-free interest rate is equal to the yield, as of the measurement date, of the zero-coupon U.S. Treasury bill that is commensurate with the remaining performance measurement period. None of these RSUs were forfeited or expired during the year ended December 31, 2019.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**  
(US\$'000, except share data and per share data, or otherwise noted)

**23 Share-based compensation (Continued)**

(b) Post-IPO share incentive plan (Continued)

The following table summarizes the activity of the service-based RSUs for the years ended December 31, 2018 and 2019:

	Number of RSUs	Weighted average grant date fair value
At January 1, 2018	-	-
Granted	1,950,374	8.72
Vested	(1,569,792)	9.94
Forfeited	(4,310)	12.70
At December 31, 2018	<u>376,272</u>	<u>8.02</u>
Vested and expected to vest at December 31, 2018	<u>376,272</u>	<u>8.02</u>
At January 1, 2019	376,272	8.02
Granted	279,480	3.79
Vested	(167,833)	10.25
Forfeited	(24,373)	7.56
At December 31, 2019	<u>463,546</u>	<u>5.52</u>
Vested and expected to vest at December 31, 2019	<u>377,507</u>	<u>7.57</u>

Forfeitures are estimated at the time of grant. If necessary, forfeitures are revised in subsequent periods if actual forfeitures differ from those estimates. Based upon the Company's expected forfeitures for RSUs granted, the directors of the Company estimated that its future forfeiture rate would be 1% for employees and 0% for non-employees in 2018 and 2019, respectively.

All share-based payments to employees are measured based on their grant-date fair values. Compensation expense is recognized based on the vesting schedule over the requisite service period. Total fair values and intrinsic value of RSUs vested and recognized as expenses as of December 31, 2018 and 2019 were US\$14,330 and US\$1,331 respectively.

(c) Issuance of shares to certain employees with performance conditions

On December 28, 2016, the Company authorized and communicated the issuance of restricted ordinary shares of 1,068,114 and 801,086 of the Company to certain employees upon fulfillment of certain performance conditions (mainly financial performance related) for the fiscal years of 2017 and 2018, respectively and these employees have to be remained employed by the Company. Considering the performance conditions were not achieved during the years ended December 31, 2017 and 2018, no share-based compensation expense was recorded. Total fair value of these shares were US\$32,869. Significant factors, assumptions and methodologies used in determining the business valuation include applying the discounted cash flow approach, and such approach involves certain significant estimates. They are terminal growth rate of 3.0%, weighted average cost of capital of 18.3% and growth rate on average spending per customer ranging from 3.0% to 19.0%. All these restricted ordinary shares were forfeited and expired as of December 31, 2019.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

## 23 Share-based compensation (Continued)

## (d) Issuance of warrants to an external consultant

Pursuant to the agreement executed between the Company and an external consultant ("Warrant Agreement"), the Company shall issue warrants to purchase up to 4,651,162 ADSs ("Warrants") to the external consultant in exchange for its financial advisory services which the Warrants shall be vested upon the completion of raising a minimum of US\$20,000 by the Company through issuing convertible notes or any equivalent financial instruments. On December 9, 2019, the Company, based on the Warrant Agreement, issued the Warrants to the external consultant as the Company was able to successfully issue the November 2019 Notes. The exercise period of the Warrants commences on December 16, 2020 at an exercise price of US\$4.30 per ADS and will expire on December 16, 2022. In accordance with ASC 718, the measurement date for the vested warrants was December 9, 2019. The warrants issued to the consultant are classified as equity awards and measured based on the measurement date fair value of US\$0.709 per warrant. During the year ended December 31, 2019, no warrants were exercised.

Since all of the warrants granted were fully vested, compensation expense of US\$3,298 was immediately recognized with a corresponding credit to additional paid-in capital during the year ended December 31, 2019.

The fair value of the warrants granted on December 9, 2019 was estimated by using the binomial option pricing model with the following assumptions:

Input	%
Volatility	42.1
Risk-free interest rate	1.6
Expected dividend yield	0.0
Expected warrant life (years)	3.0
Expected forfeiture rate	0.0

## (e) Total share-based compensation costs

Total share-based compensation costs recognized for the years ended December 31, 2017, 2018 and 2019 are as follows:

	For the years ended December 31,		
	2017	2018	2019
Cost of revenues	49	347	35
Research and development	937	6,587	661
Sales and marketing	2,179	4,811	655
General and administrative	1,907	7,934	4,062
<b>Total</b>	<b>5,072</b>	<b>19,679</b>	<b>5,413</b>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

## 24 Other gains, net

	For the years ended December 31,		
	2017	2018	2019
Net exchange gain/(loss)	1,257	(857)	(410)
Forfeiture of advances from customers (Note (i))	432	1,088	1,369
Gain on bargain purchase	-	285	-
Government subsidy income	-	-	1,394
ADR reimbursement from depository bank	-	-	224
Fair value gains on short-term investments	-	25	107
Others	152	146	308
Total	<u>1,841</u>	<u>687</u>	<u>2,992</u>

Note:

- (i) The forfeited advances from customers are recognized as other gains when the contractual obligation of the Company to provide the agreed services no longer existed legally due to passage of time.

## 25 Income tax

## (a) Cayman Islands

Under the current tax laws of Cayman Islands, the Company and its subsidiaries are not subject to tax on income or capital gains. Besides, upon payment of dividends by the Company to its shareholders, no Cayman Islands withholding tax will be imposed.

## (b) Hong Kong profits tax

Entities incorporated in Hong Kong are subject to Hong Kong profits tax at a rate of 16.5% on the estimated assessable profit for the years ended December 31, 2017, 2018 and 2019.

## (c) PRC Enterprise Income Tax ("EIT")

The Company's subsidiaries, VIE and VIE's subsidiaries in the PRC are governed by the Enterprise Income Tax Law ("EIT Law"). Pursuant to the EIT Law and its implementation rules, enterprises in the PRC are generally subjected to tax at a statutory rate of 25%.

High and new technology enterprises ("HNTE") will enjoy a preferential enterprise income tax rate of 15% under the EIT Law. OptAim WFOE and Changyi, the Company's subsidiaries in the PRC, which are qualified as a HNTE under the EIT Law, are eligible for a preferential enterprise income tax rate of 15% for the period from 2018 to 2020 and 2017 to 2019, respectively, so long as these subsidiaries obtain approval from relevant tax authority if they are profitable during the period.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

25 **Income tax (Continued)**

## (c) PRC Enterprise Income Tax ("EIT") (Continued)

In addition, according to the EIT Law and its implementation rules, foreign enterprises, which have no establishment or place in the PRC but derive dividends, interest, rents, royalties and other income (including capital gains) from sources in the PRC shall be subject to PRC withholding tax ("WHT") at 10% (a further reduced WHT rate may be available according to the applicable double tax treaty or arrangement). The 10% WHT is applicable to any dividends to be distributed from the Group's PRC subsidiaries to the Group's overseas companies unless otherwise exempted pursuant to applicable tax treaties or tax arrangements between the PRC government and the government of other jurisdiction which the WHT is reduced to 5%.

Although there are undistributed earnings of the Company's subsidiaries in the PRC that are available for distribution to the Company, the undistributed earnings of the Company's subsidiaries located in the PRC are considered to be indefinitely reinvested, because the Company does not have any present plan to pay any cash dividends on its ordinary shares in the foreseeable future and intends to retain most of its available funds and any future earnings for use in the operation and expansion of its business. Accordingly, no deferred tax liability has been accrued for the PRC dividend withholding taxes that would be payable upon the distribution of those amounts to the Company as of December 31, 2018 and 2019. The undistributed earnings from the Company's subsidiaries in the PRC as of December 31, 2018 and 2019 amounted US\$1,610 and US\$1,481 would be due if these earnings were remitted as dividends as of December 31, 2018 and 2019. An estimated foreign withholding taxes of US\$81 and US\$74 would be due if these earnings were remitted as dividends as of December 31, 2018 and 2019, respectively.

## (d) Composition of income tax expense

The current and deferred portions of income tax expense included in the consolidated statements of comprehensive loss are as follows:

	For the years ended December 31,		
	2017	2018	2019
Current income tax expense	1,262	1,561	1,130
Deferred tax benefits	(714)	(906)	(1,083)
Income tax expense	<u>548</u>	<u>655</u>	<u>47</u>

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**  
(US\$'000, except share data and per share data, or otherwise noted)

25 **Income tax (Continued)**

(e) Deferred tax assets and liabilities

Deferred taxes were measured using the enacted tax rates for the periods in which they are expected to be reversed. The tax effects of temporary differences that give rise to the deferred tax asset and deferred tax liability balances as of December 31, 2018 and 2019 are as follows:

	As of December 31,	
	2018	2019
<b>Deferred tax assets</b>		
Tax losses carried forward	6,385	5,923
Share-based payments	884	831
Temporary difference on deferred income	269	202
Less: Valuation allowance (Note (i))	(6,385)	(5,923)
	<u>1,153</u>	<u>1,033</u>
<b>Deferred tax liabilities</b>		
Acquired intangible assets	(1,760)	(894)
Outside basis difference (Note (ii))	(1,004)	(942)
Others	(30)	(29)
	<u>(2,794)</u>	<u>(1,865)</u>

Note:

- (i) Valuation allowance is provided against deferred tax assets when the Group determines that it is more likely than not that the deferred tax assets will not be utilized in the future. In making such determination, the Group considered factors including future taxable income exclusive of reversing temporary differences and tax loss carryforwards. Valuation allowance was provided for net operating loss carryforwards because it was more likely than not that such deferred tax assets will not be realized based on the Group's estimate of its future taxable income. If events occur in the future that allow the Group to realize more of its deferred income tax than the presently recorded amounts, an adjustment to the valuation allowances will result in a decrease in tax expense when those events occur.

Movement of valuation allowance is as follows:

	For the years ended December 31,		
	2017	2018	2019
Beginning balance	6,838	7,573	6,385
Additions	735	199	801
Reversals (Note)	–	(1,387)	(1,263)
Ending balance	<u>7,573</u>	<u>6,385</u>	<u>5,923</u>

Note:

The reversals comprise tax loss carryforwards which have been utilized to offset taxable income during the years ended December 31, 2018 and 2019, respectively, and tax loss carryforwards which have been expired in 2018.

- (ii) The deferred tax liabilities are recorded for the undistributed earnings in the Group's VIE in the PRC and its subsidiaries of US\$4,012 and US\$3,770 as of December 31, 2018 and 2019, respectively

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

## 25 Income tax (Continued)

## (e) Deferred tax assets and liabilities (Continued)

## Tax loss carryforwards

As of December 31, 2019, the Group had tax loss carryforwards of approximately US\$25,432, which can be carried forward to offset future taxable income. The net operating tax loss carryforwards will begin to expire as follows:

	As of December 31, 2019
2020	2,833
2021	7,580
2022	7,845
2023	384
2024	4,129
Tax loss with no expiry	2,661
	<u>25,432</u>

In accordance with PRC Tax Administration Law on the Levying and Collection of Taxes, the PRC tax authorities generally have up to five years to claw back underpaid tax plus penalties and interest for PRC entities' tax filings. In the case of tax evasion, which is not clearly defined in the law, there is no limitation on the tax years open for investigation. Accordingly, the PRC entities' tax years from 2014 to 2019 remain subject to examination by the tax authorities. There were no ongoing examinations by tax authorities as of December 31, 2018 and 2019.

## (f) Income tax reconciliation

Reconciliation between the expense of income taxes computed by applying the statutory tax rates to loss before income taxes and the actual provision for income taxes is as follows:

	For the years ended December 31,		
	2017	2018	2019
Tax benefit calculated at statutory tax rates (Note i)	(3,972)	(7,989)	(2,599)
Effect of differences between statutory tax rates and foreign effective tax rates	(1,172)	2,804	1,999
Non-taxable other income	(275)	(274)	(235)
Non-deductible expenses (Note ii)	4,861	6,784	1,338
Valuation allowance	735	(1,188)	(462)
Outside basis difference (Note iii)	486	518	(62)
Others	(115)	-	68
Income tax expense	<u>548</u>	<u>655</u>	<u>47</u>

## Note:

- (i) The Group's major operation during the year ended December 31, 2017 was conducted out of Hong Kong. Accordingly, the Group prepared its tax rate reconciliation starting with the Hong Kong statutory tax rate for the year ended December 31, 2017. The Group's major operation during the years ended December 31, 2018 and 2019 was conducted out of the PRC. Accordingly, the Group prepared its tax rate reconciliation starting with the PRC statutory tax rate during the years ended December 31, 2018 and 2019.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

25 **Income tax (Continued)**

## (f) Income tax reconciliation (Continued)

Reconciliation between the expense of income taxes computed by applying the statutory tax rates to loss before income taxes and the actual provision for income taxes is as follows: (Continued)

Note: (Continued)

- (ii) Non-deductible expenses were mainly related to share-based compensation expenses, fair value losses on derivative liabilities and fair value losses on convertible notes.
- (iii) Outside basis difference is related to undistributed earnings in the Group's VIE in the PRC and its subsidiaries (Note 25(e)(ii)).

26 **Basic and diluted net loss per share**

Basic and diluted net loss per share for the years ended December 31, 2017, 2018 and 2019 are calculated as follows:

	For the years ended December 31,		
	2017	2018	2019
<b>Numerator:</b>			
Net loss attributable to ordinary shareholders of the Company	(24,619)	(32,409)	(9,603)
Accretion of convertible redeemable preferred shares redemption value	(1,662)	-	-
Accretion to redeemable ordinary shares redemption value	(3,650)	-	-
Numerator for basic and diluted net loss per share	<u>(29,931)</u>	<u>(32,409)</u>	<u>(9,603)</u>
<b>Denominator:</b>			
Denominator for basic and diluted net loss per share - weighted average shares outstanding	<u>13,931,503</u>	<u>26,452,409</u>	<u>28,583,548</u>
Basic net loss per share	(2.15)	(1.23)	(0.34)
Diluted net loss per share	(2.15)	(1.23)	(0.34)

The Company's preferred shares are participating securities and as such would be included in the calculation of basic earnings per share under the two-class method. According to the contractual terms of the preferred shares, the preferred shares do not have a contractual obligation to share in the losses of the Company. Therefore no loss was allocated to the preferred shares in the computation of basic loss per share for the years ended December 31, 2017, 2018 and 2019.

The share options, RSUs, warrants and convertible notes were excluded from the computation of diluted net loss per ordinary share for the years presented because including them would have had an anti-dilutive effect.

The following ordinary share equivalents were excluded from the computation of diluted net loss per ordinary share for the years presented because including them would have had an anti-dilutive effect:

	As of December 31,		
	2017	2018	2019
Share options, RSUs and warrants – weighted average (thousands)	1,071	505	505
Convertible notes – weighted average (thousands)	-	929	6,909

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

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**Related party transactions**

Save as disclosed elsewhere in these consolidated financial statements, there were no transactions nor balances with related parties as of and for the years ended December 31, 2017 and 2019.

The table below sets forth the major related parties and their relationships with the Company as of and for the year ended December 31, 2018:

<b>Related party</b>	<b>Relationship with the Company</b>
Aladdin Fintech Company Limited	An entity controlled by a former director of the Company resigned on May 28, 2019

(a) The Group entered into the following transactions with the major related party for the year ended December 31, 2018:

**Net revenues:**

Platform development fee income, license fee income and maintenance services income from Aladdin Fintech Company Limited	500
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Revenues from the related party represented 0.3% of total net revenues of the Group for the year ended December 31, 2018.

(b) The Group had the following balance with the related party as of December 31, 2018:

Accounts receivable from Aladdin Fintech Company Limited	350
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As of December 31, 2018, the balance with the related party related to outstanding receivables of platform development fee income, license fee income and maintenance services income, which represented 0.5% of the Group's total accounts receivable. The balance has been fully repaid to the Company during the year ended 31st December 2019.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

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## Segments

Effective in the first quarter of 2019, the Group changed its segment disclosure to separately report the financial results of its Enterprise Solutions business in light of the acquisition of Changyi on January 1, 2019. This segment primarily reflects the results of the Group's SaaS products offering, which is conducted through Changyi Group, a group of companies acquired on January 1, 2019. At the same time, the Group named its pre-existing online marketing service business as Marketing Solution business. Therefore, the Group now reports two operating segments: 1) Marketing Solutions, and 2) Enterprise Solutions.

The table below provides a summary of the Group's breakdown of net revenues by type of good or service and operating segment results for the years ended December 31, 2017, 2018 and 2019. The Group does not allocate any operating costs or assets to its business segments as the Group's CODM does not use this information to measure the performance of the operating segments. There was no significant transaction between reportable segments for the years ended December 31, 2017, 2018 and 2019.

	For the years ended December 31,		
	2017	2018	2019
<b>Net revenues:</b>			
Marketing Solutions			
- Sales agent	8,311	8,671	6,563
- Cost-plus	10,788	12,192	17,146
- Specified actions	106,159	139,154	165,263
	<u>125,258</u>	<u>160,017</u>	<u>188,972</u>
Enterprise Solutions			
- SaaS products offering	-	-	10,436
	<u>125,258</u>	<u>160,017</u>	<u>199,408</u>
<b>Cost of revenues:</b>			
Marketing Solutions			
- Sales agent	(2,654)	-	-
- Cost-plus	-	-	-
- Specified actions	(93,079)	(120,897)	(139,976)
	<u>(95,733)</u>	<u>(120,897)</u>	<u>(139,976)</u>
Enterprise Solutions			
- SaaS products offering	-	-	(2,727)
	<u>(95,733)</u>	<u>(120,897)</u>	<u>(142,703)</u>
<b>Gross profit:</b>			
Marketing Solutions			
- Sales agent	5,657	8,671	6,563
- Cost-plus	10,788	12,192	17,146
- Specified actions	13,080	18,257	25,287
	<u>29,525</u>	<u>39,120</u>	<u>48,996</u>
Enterprise Solutions			
- SaaS products offering	-	-	7,709
	<u>29,525</u>	<u>39,120</u>	<u>56,705</u>

The Group currently does not allocate assets to all of its segments, as its CODM does not use such information to allocate resources or evaluate the performance of the operating segments.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

## 28 Segments (Continued)

Revenue generated for the respective countries are summarized as follows:

	For the years ended December 31,		
	2017	2018	2019
PRC	105,380	141,926	175,970
Hong Kong	18,287	17,004	22,567
Others	1,591	1,087	871
	<u>125,258</u>	<u>160,017</u>	<u>199,408</u>

The Group's long-lived assets are located in the following countries:

	As of December 31,	
	2018	2019
PRC	231	412
Hong Kong	92	120
Others	6	4
	<u>329</u>	<u>536</u>

## 29 Commitments and contingencies

*Litigation*

In the ordinary course of the business, the Group is subject to periodic legal or administrative proceedings. As of December 31, 2018 and 2019, the Group is not a party to any legal or administrative proceedings which will have a material adverse effect on the Group's business, financial position, results of operations and cash flows.

## 30 Subsequent events

The Group evaluated subsequent events from December 31, 2019 through the date when the consolidated financial statements were issued, and concluded that no subsequent events have occurred that would require recognition or disclose in the consolidated financial statements other than discussed below.

- (a) On February 18, 2020, the Group has announced a potential acquisition of 80% equity interest of Optimal Power Limited ("Optimal Power"), a wholly-owned entity of Creative Big Limited ("Creative Big"), both incorporated under the laws of the British Virgin Islands at a total consideration of US\$28,000. Creative Big has secured a network of premium media licensing assets in countries including Singapore, Greater China (including Hong Kong), Australia, India, Indonesia, The Philippines and Malaysia and as part of the transaction, Creative Big would inject the selected media licensing assets into Optimal Power. As of the date of these consolidated financial statements, the transaction has not been completed as certain closing conditions of the acquisition remain outstanding.
- (b) On January 15, 2020, the board of directors of the Company authorized a new share repurchase program (the "2020 Share Repurchase Program") whereby the Company may purchase its own ADSs with an aggregate value of up to US\$10,000 over the 12-month period ending on December 29, 2020.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(US\$'000, except share data and per share data, or otherwise noted)

30

## Subsequent events (Continued)

- (c) On January 23, 2020, the Company issued US\$3,450 of zero-coupon convertible notes at US\$4,002 (the "January 2020 Notes"). The January 2020 Notes mature on September 12, 2023 and are non-interest bearing, unless the January 2020 Notes are redeemed or repaid upon the occurrence of events of default or relevant events as defined in the agreement whereby an interest of 5% per annum would be charged. On February 3, 2020, the holder of January 2020 Notes has elected to convert the January 2020 Notes into Class A ordinary shares, par value US\$0.001 per share, of the Company at a price of US\$3.17 per share.
- (d) On February 17, 2020, the Company has entered into an agreement to issue US\$13,100 of zero-coupon convertible notes at US\$15,196 (the "February 2020 Notes") on or before June 16, 2020 upon payment of the consideration by the investor. The February 2020 Notes mature on September 12, 2023 and are non-interest bearing, unless the January 2020 Notes are redeemed or repaid upon the occurrence of events of default or relevant events as defined in the agreement whereby an interest of 5% per annum would be charged. As of the date of these consolidated financial statements, the February 2020 Notes have not been issued.
- (e) In December 2019, a novel strain of coronavirus, later named COVID-19, was reported. In March 2020, the World Health Organization declared coronavirus COVID-19 a global pandemic. This outbreak has led to temporary closure of the Group's offices in the PRC in February 2020 with a significant portion of the Group's employees working from home. The offices have been later re-opened, the Group has adopted and implemented health protocols allowing only half of the employees to work onsite. The Group's business operates as usual under this discretionary working arrangement during the period. This contagious disease outbreak, which has continued to spread, and any related adverse public health developments, have adversely affected workforces, customers, economies, and financial markets globally, likely leading to an economic downturn. It has also disrupted the normal operations of many businesses. This outbreak could decrease corporate's spending on advertising services, adversely affect demand for the Group's Marketing Solutions and Enterprises Solutions services and harm the Group's business and results of operations. While the disruption is currently expected to be temporary, there is uncertainty around the duration of these disruptions or the possibility of other effects on the Group's business. While the Group has not noted significant negative impact to its business, results of operations and financial condition in the first quarter of 2020, the Group's business, financial condition and results of operations may be adversely affected by the coronavirus outbreak in the near term, which are uncertain and cannot be predicted, including new information which may emerge concerning the severity of COVID-19 and the actions to contain COVID-19 or treat its impact, among others.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

(US\$'000, except share data and per share data, or otherwise noted)

**31 Restricted net assets**

Relevant PRC laws and regulations permit payments of dividends by the Group's subsidiary, VIE and its subsidiaries incorporated in the PRC only out of their retained earnings, if any, as determined in accordance with PRC accounting standards and regulations. In addition, the Group's subsidiary and the VIE in the PRC are required to annually appropriate 10% of their net after-tax income to the statutory general reserve fund prior to payment of any dividends, unless such reserve funds have reached 50% of their respective registered capital. As a result of these and other restrictions under PRC laws and regulations, the Group's subsidiaries, VIE and its subsidiaries incorporated in the PRC are restricted in their ability to transfer a portion of their net assets to the Company either in the form of dividends, loans or advances. There are no significant differences between US GAAP and PRC accounting standards in connection with the reported net assets of the legally owned subsidiaries in the PRC and the VIE. Even though the Company currently does not require any such dividends, loans or advances from the PRC entities for working capital and other funding purposes, the Company may in the future require additional cash resources from them due to changes in business conditions, to fund future acquisitions and development, or merely to declare and pay dividends or distributions to our shareholders. Except for the above, there is no other restriction on use of proceeds generated by the Group's subsidiaries, VIE and its subsidiaries to satisfy any obligations of the Company.

As of December 31, 2018 and 2019, the total restricted net assets of the Company's subsidiaries and OptAim VIE incorporated in the PRC and subjected to restriction amounted to approximately US\$65,659 and US\$60,411, respectively. Except for the above there is no other restriction on the use of proceeds generated by the Company's subsidiaries, VIE and VIE's subsidiaries to satisfy any obligations of the Company.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

(US\$'000, except share data and per share data, or otherwise noted)

**ADDITIONAL INFORMATION: CONDENSED FINANCIAL STATEMENTS OF PARENT COMPANY**

Rules 12-04(a) and 4-08(e)(3) of Regulation S-X require condensed financial information as to the financial position, cash flows and results of operations of a parent company as of and for the same periods for which the audited consolidated financial statements have been presented when the restricted net assets of the consolidated subsidiaries together exceed 25% of consolidated net assets as of the end of the most recently completed fiscal year.

The following condensed financial statements of the Company have been prepared using the same accounting policies as set out in the Company's consolidated financial statements except that the Company used the equity method to account for its investment in its subsidiaries and VIEs. Such investment is presented on the separate condensed balance sheets of the Company as "Investment in subsidiaries and VIEs" and "Accumulated losses in excess of investment in subsidiaries and VIEs." The Company, its subsidiaries and VIEs were included in the consolidated financial statements whereby the inter-company balances and transactions were eliminated upon consolidation. The Company's share of income from its subsidiaries and VIEs is reported as share of income from subsidiaries and VIEs in the condensed financial statements.

The Company is a Cayman Islands company and, therefore, is not subjected to income taxes for all years presented. The footnote disclosures contain supplemental information relating to the operations of the Company and, as such, these statements should be read in conjunction with the notes to the consolidated financial statements of the Company. Certain information and footnote disclosures normally included in financial statements prepared in accordance with U.S. GAAP have been condensed or omitted.

As of December 31, 2018 and 2019, there were no material commitments or contingencies, significant provisions for long-term obligations or guarantees of the Company, except for those which have been separately disclosed in the consolidated financial statements, if any.

Inter-company charges, share-based compensation and other miscellaneous expenses for the years ended December 31, 2017, 2018 and 2019, which were previously recognized at the parent company level, had been pushed down to the WFOE/VIE level given the majority of services were provided to the WFOE/VIE entities.

The condensed financial statements of the parent company should be read in conjunction with the Company's consolidated financial statements and the accompanying notes thereto. For purposes of these condensed financial statements, the Company's wholly owned and majority owned subsidiaries are recorded based upon its proportionate share of the subsidiaries' net assets (similar to presenting them on the equity method).

**CONDENSED BALANCE SHEETS**  
**AS OF DECEMBER 31, 2018 AND 2019**

(US\$'000, except share data and per share data, or otherwise noted)

	As of December 31,	
	2018	2019
<b>Assets</b>		
<b>Current assets</b>		
Cash and cash equivalents	2,132	20,459
Time deposits	-	301
Restricted cash	-	2,930
Amounts due from subsidiaries and VIEs	98,829	84,831
Other current assets	929	1,226
<b>Total current assets</b>	<u>101,890</u>	<u>109,747</u>
<b>Non-current assets</b>		
Deferred tax assets	269	201
Investments in subsidiaries and VIEs	40,759	42,783
Long-term investments	503	1,503
Investment in an equity investee	-	158
<b>Total non-current assets</b>	<u>41,531</u>	<u>44,645</u>
<b>Total assets</b>	<u>143,421</u>	<u>154,392</u>
<b>Liabilities and shareholders' equity</b>		
<b>Current liabilities</b>		
Accrued liabilities and other current liabilities	2,586	2,834
Convertible notes at fair value	34,837	49,008
<b>Total current liabilities</b>	<u>37,423</u>	<u>51,842</u>
<b>Non-current liability</b>		
Other liabilities	673	449
<b>Total non-current liability</b>	<u>673</u>	<u>449</u>
<b>Total liabilities</b>	<u>38,096</u>	<u>52,291</u>
<b>Commitments and contingencies</b>	-	-
<b>Shareholders' equity</b>		
Ordinary shares	28	29
Treasury shares	(576)	(4,858)
Other shareholders' equity	105,873	106,930
<b>Total shareholders' equity</b>	<u>105,325</u>	<u>102,101</u>
<b>Total liabilities and shareholders' equity</b>	<u>143,421</u>	<u>154,392</u>

**CONDENSED STATEMENTS OF COMPREHENSIVE LOSS  
FOR THE YEARS ENDED DECEMBER 31, 2017, 2018 AND 2019**  
(US\$'000, except share data and per share data, or otherwise noted)

	For the years ended December 31,		
	2017	2018	2019
<b>Operating expenses</b>			
General and administrative expenses	(6,928)	(27,643)	(12,064)
<b>Total operating expenses</b>	<u>(6,928)</u>	<u>(27,643)</u>	<u>(12,064)</u>
<b>Operating loss</b>	(6,928)	(27,643)	(12,064)
Other (losses)/gains, net	(116)	403	285
Fair value losses on derivative liabilities	(10,190)	-	-
Fair value (losses)/gains on convertible notes	-	(4,837)	133
Share of (losses)/profits from subsidiaries and VIEs	(7,385)	(264)	2,519
<b>Loss before income tax expense</b>	<u>(24,619)</u>	<u>(32,341)</u>	<u>(9,127)</u>
Share of loss from an equity investee	-	-	(408)
Income tax expense	-	(68)	(68)
<b>Net loss attributable to iClick Interactive Asia Group Limited</b>	<u>(24,619)</u>	<u>(32,409)</u>	<u>(9,603)</u>
Accretion to convertible redeemable preferred shares redemption value	(1,662)	-	-
Accretion to redeemable ordinary shares redemption value	(3,650)	-	-
<b>Net loss attributable to iClick Interactive Asia Group Limited's ordinary shareholders</b>	<u>(29,931)</u>	<u>(32,409)</u>	<u>(9,603)</u>
Net loss attributable to iClick Interactive Asia Group Limited	(24,619)	(32,409)	(9,603)
Other comprehensive loss:			
Foreign currency translation adjustment, net of tax	(79)	(2,547)	(1,612)
<b>Comprehensive loss attributable to iClick Interactive Asia Group Limited</b>	<u>(24,698)</u>	<u>(34,956)</u>	<u>(11,215)</u>

**CONDENSED STATEMENTS OF CASH FLOWS**  
**FOR THE YEARS ENDED DECEMBER 31, 2017, 2018 AND 2019**  
(US\$'000, except share data and per share data, or otherwise noted)

	For the years ended December 31,		
	2017	2018	2019
<b>Cash flows from operating activities:</b>			
Net cash (used in)/provided by operating activities	(34,030)	(32,234)	9,746
<b>Cash flows from investing activities:</b>			
Increase in long-term investments	-	(503)	(1,000)
Investment in an equity investee	-	-	(566)
Increase in time deposits	-	-	(301)
Net cash used in investing activities	-	(503)	(1,867)
<b>Cash flows from financing activities:</b>			
Proceeds from exercise of share options	60	656	315
Proceeds from issuance of convertible notes, net of transaction expenses	-	27,810	28,742
Redemption of convertible notes	-	-	(11,265)
Repurchase of ordinary shares	-	(37)	(4,414)
Net proceeds from issuance of ordinary shares upon IPO	28,405	-	-
Net cash provided by financing activities	28,465	28,429	13,378
<b>Net (decrease)/increase in cash and cash equivalents and restricted cash</b>	<b>(5,565)</b>	<b>(4,308)</b>	<b>21,257</b>

**Description of Rights of Each Class of Securities Registered under  
Section 12 of the Securities Exchange Act of 1934**

American Depositary Shares (“ADSs”), two representing one Class A ordinary share, of iClick Interactive Asia Group Limited (“our company”) are listed on the NASDAQ Global Market and the shares are registered under Section 12(b) of the Exchange Act. This exhibit contains a description of the rights of (i) the holders of ordinary shares and (ii) ADS holders. Shares underlying the ADSs are held by JPMorgan Chase Bank, N.A., as depositary, and holders of ADSs will not be treated as holders of the ordinary shares.

**Description of Ordinary Shares (Items 9.A.3, 9.A.5, 9.A.6, 10.B.3, 10.B.4, 10.B.6, 10.B.7, 10.B.8, 10.B.9 and 10.B.10 of Form 20-F)**

**General**

Our ordinary shares are issued in registered form and are issued when registered in our register of members. Our shareholders who are non-residents of the Cayman Islands may freely hold and vote their shares.

**Preemptive Rights**

The shareholders of our company do not have preemptive right.

**Transfer of Ordinary Shares**

Subject to the restrictions set out below, any of our shareholders may transfer all or any of his or her ordinary shares by an instrument of transfer in the usual or common form or any other form approved by our board of directors.

Our board of directors may, in its absolute discretion, decline to register any transfer of any ordinary share which is not fully paid up or on which we have a lien. Our board of directors may also decline to register any transfer of any ordinary share unless:

- the instrument of transfer is lodged with us, accompanied by the certificate for the ordinary shares to which it relates and such other evidence as our board of directors may reasonably require to show the right of the transferor to make the transfer;
- the instrument of transfer is in respect of only one class of shares;
- the instrument of transfer is properly stamped, if required;
- in the case of a transfer to joint holders, the number of joint holders to whom the ordinary share is to be transferred does not exceed four; and
- a fee of such maximum sum as the NASDAQ may determine to be payable or such lesser sum as our directors may from time to time require is paid to us in respect thereof.

If our directors refuse to register a transfer they shall, within three months after the date on which the instrument of transfer was lodged, send to each of the transferor and the transferee notice of such refusal.

The registration of transfers may, after compliance with any notice required of the NASDAQ, be suspended and the register closed at such times and for such periods as our board of directors may from time to time determine, provided, however, that the registration of transfers shall not be suspended nor the register closed for more than 30 days in any year as our board may determine.

**Limitations or Qualifications**

The rights of our shareholders are not materially limited or qualified.

**Dividend rights**

The holders of our ordinary shares are entitled to such dividends as may be declared by our board of directors. In addition, our shareholders may by ordinary resolution declare a dividend, but no dividend may exceed the amount recommended by our directors. Under Cayman Islands law, dividends may be declared and paid only out of funds legally available therefor, namely out of either profit or our share premium account, and provided further that a dividend may not be paid if this would result in our company being unable to pay its debts as they fall due in the ordinary course of business.

**Voting rights**

Our share capital is currently divided into Class A ordinary shares and Class B ordinary shares. On a show of hands each shareholder is entitled to one vote or, on a poll, each Class A ordinary share shall be entitled to one (1) vote on all matters subject to vote at general meetings of the Company, and each Class B ordinary share shall be entitled to twenty (20) votes on all matters subject to vote at general meetings of the Company. Unless otherwise required under the laws of the Cayman Islands, Class A ordinary shares and Class B ordinary shares shall vote together as a single class.

Voting at any meeting of shareholders is by way of a poll, unless the chairman allows a vote by show of hands on a resolution which relates purely to a procedural or administrative matter. Procedural and administrative matters are those that are not on the agenda of the general meeting and relate to the chairman’s duties to maintain the orderly conduct of the meeting or allow the business of the meeting to be properly and effectively dealt with, while affording all shareholders a reasonable opportunity to express their views.

A quorum required for a meeting of shareholders consists of two shareholders entitled to vote present in person or by proxy or, if the shareholder is a legal entity, by its duly authorized representative. A majority of the board or the chairman of the board may call extraordinary general meetings, which extraordinary general meetings shall be held at such times and locations (as permitted hereby) as such person or persons shall determine. Advance notice of at least ten clear days is required for the convening of our annual general shareholders' meeting and any other general shareholders' meeting.

An ordinary resolution to be passed by the shareholders requires the affirmative vote of a simple majority of votes attached to the ordinary shares cast in a general meeting, while a special resolution requires the affirmative vote of no less than two-thirds of votes cast attached to the ordinary shares. Both ordinary resolutions and special resolutions may also be passed by unanimous written resolutions signed by all the shareholders of our company, as permitted by the Companies Law and our ninth amended and restated memorandum and articles of association. An ordinary resolution will be required for important matters including appointment or removal of the chairman of the board of directors, or removal of any directors (other than "for cause"), among others. A special resolution will be required for fundamental matters including a change of control event, and statutory matters such as merger, a change of name, making changes to our memorandum and articles of association or other matter as required under the laws of the Cayman Islands.

### ***Liquidation***

On a return of capital on winding up or otherwise (other than on conversion, redemption or purchase of shares), assets available for distribution among the holders of ordinary shares shall be distributed among the holders of our ordinary shares on a pro rata basis. If our assets available for distribution are insufficient to repay all of the paid-up capital, the assets will be distributed so that the losses are borne by our shareholders proportionately.

### ***Redemption, Repurchase and Surrender of Ordinary Shares***

We may issue shares on terms that such shares are subject to redemption, at our option or at the option of the holders thereof, on such terms and in such manner as may be determined, before the issue of such shares, by our board of directors or by an ordinary resolution of our shareholders. Our company may also repurchase any of our shares provided that the manner and terms of such purchase have been approved by our board of directors or by ordinary resolution of our shareholders, or are otherwise authorized by our memorandum and articles of association. Under the Companies Law, the redemption or repurchase of any share may be paid out of our company's profits or out of the proceeds of a fresh issue of shares made for the purpose of such redemption or repurchase, or out of capital (including share premium account and capital redemption reserve) if the company can, immediately following such payment, pay its debts as they fall due in the ordinary course of business. In addition, under the Companies Law no such share may be redeemed or repurchased (a) unless it is fully paid up, (b) if such redemption or repurchase would result in there being no shares issued and outstanding, or (c) if the company has commenced liquidation. In addition, our company may accept the surrender of any fully paid share for no consideration.

### ***No Sinking Fund***

Our ordinary shares are not subject to sinking fund provisions.

### ***Calls on Shares and Forfeiture of Shares***

Our board of directors may from time to time make calls upon shareholders for any amounts unpaid on their shares in a notice served to such shareholders at least 14 days prior to the specified time and place of payment. The shares that have been called upon and remain unpaid are subject to forfeiture.

### ***Variations of Rights of Shares***

The rights attached to any class or series of shares (unless otherwise provided by the terms of issue of the shares of that class or series) may be varied with the consent in writing of all the holders of the issued shares of that class or series or with the sanction of a special resolution passed at a separate meeting of the holders of the shares of that class or series. The rights conferred upon the holders of the shares of any class issued shall not, unless otherwise expressly provided by the terms of issue of the shares of that class, be deemed to be varied by the creation or issue of further shares ranking *pari passu* with such existing class of shares.

### ***Limitations on the Right to Own Shares***

There are no limitations on the right to own our shares.

### ***Disclosure of Shareholder Ownership***

There are no provisions in our ninth amended and restated memorandum and articles of association governing the ownership threshold above which shareholder ownership must be disclosed.

### ***Differences in Corporate Law***

The Companies Law is derived, to a large extent, from the older Companies Acts of England but does not follow recent United Kingdom statutory enactments, and accordingly there are significant differences between the Companies Law and the current Companies Act of England. In addition, the Companies Law differs from laws applicable to United States corporations and their shareholders. Set forth below is a summary of the significant differences between the provisions of the Companies Law applicable to us and the laws applicable to companies incorporated in the United States and their shareholders.

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*Mergers and Similar Arrangements.* The Companies Law permits mergers and consolidations between Cayman Islands companies and between Cayman Islands companies and non-Cayman Islands companies. For these purposes, (a) “merger” means the merging of two or more constituent companies and the vesting of their undertaking, property and liabilities in one of such companies as the surviving company and (b) a “consolidation” means the combination of two or more constituent companies into a consolidated company and the vesting of the undertaking, property and liabilities of such companies to the consolidated company. In order to effect such a merger or consolidation, the directors of each constituent company must approve a written plan of merger or consolidation, which must then be authorized by (a) a special resolution of the shareholders of each constituent company, and (b) such other authorization, if any, as may be specified in such constituent company’s articles of association. The written plan of merger or consolidation must be filed with the Registrar of Companies together with a declaration as to the solvency of the consolidated or surviving company, a list of the assets and liabilities of each constituent company and an undertaking that a copy of the certificate of merger or consolidation will be given to the members and creditors of each constituent company and that notification of the merger or consolidation will be published in the Cayman Islands Gazette. Dissenting shareholders have the right to be paid the fair value of their shares (which, if not agreed between the parties, will be determined by the Cayman Islands court) if they follow the required procedures, subject to certain exceptions. Court approval is not required for a merger or consolidation which is effected in compliance with these statutory procedures.

In addition, there are statutory provisions that facilitate the reconstruction and amalgamation of companies, provided that the arrangement is approved by a majority in number of each class of shareholders or creditors with whom the arrangement is to be made, and who must in addition represent three-fourths in value of each such class of shareholders or creditors, as the case may be, that are present and voting either in person or by proxy at a meeting, or meetings, convened for that purpose. The convening of the meetings and subsequently the arrangement must be sanctioned by the Grand Court of the Cayman Islands. While a dissenting shareholder has the right to express to the court the view that the transaction ought not to be approved, the Grand Court can be expected to approve the arrangement if it determines that:

- the statutory provisions as to the required majority vote have been met;
- the shareholders have been fairly represented at the meeting in question and the statutory majority are acting bona fide without coercion of the minority to promote interests adverse to those of the class;
- the arrangement is such that may be reasonably approved by an intelligent and honest man of that class acting in respect of his interest; and
- the arrangement is not one that would more properly be sanctioned under some other provision of the Companies Law.

When a takeover offer is made and accepted by holders of 90% of the shares affected within four months, the offeror may, within a two-month period commencing on the expiration of such four month period, require the holders of the remaining shares to transfer such shares on the terms of the offer. An objection can be made to the Grand Court of the Cayman Islands but this is unlikely to succeed in the case of an offer which has been so approved unless there is evidence of fraud, bad faith or collusion.

If an arrangement and reconstruction is thus approved, the dissenting shareholder would have no rights comparable to appraisal rights, which would otherwise ordinarily be available to dissenting shareholders of Delaware corporations, providing rights to receive payment in cash for the judicially determined value of the shares.

*Shareholders’ Suits.* In principle, we will normally be the proper plaintiff to sue for a wrong done to us as a company and a derivative action may ordinarily not be brought by a minority shareholder. However, based on English authority, which would in all likelihood be of persuasive authority in the Cayman Islands, the Cayman Islands courts can be expected (and have had occasion) to follow and apply the common law principles (namely the rule in *Foss v. Harbottle* and the exceptions thereto) so that a minority shareholder may be permitted to commence a representative action against, or derivative actions in the name of, our company to challenge:

- (a) an act which is *ultra vires* the company or illegal, which is therefore incapable of ratification by the shareholders,
- (b) an act which constitutes a fraud against the minority where the wrongdoers are themselves in control of the company, or
- (c) an act which requires a resolution with a qualified (or special) majority (i.e. more than a simple majority) which has not been obtained.

*Indemnification of Directors and Executive Officers and Limitation of Liability.* Cayman Islands law does not limit the extent to which a company’s memorandum and articles of association may provide for indemnification of officers and directors, except to the extent any such provision may be held by the Cayman Islands courts to be contrary to public policy, such as to provide indemnification against civil fraud or the consequences of committing a crime. Our ninth amended and restated memorandum and articles of association require us to indemnify our officers and directors for losses, damages, costs and expenses incurred in their capacities as such unless such losses or damages arise from dishonesty, willful default or fraud of such directors or officers. This standard of conduct is generally the same as permitted under the Delaware General Corporation Law for a Delaware corporation.

In addition, we will enter into indemnification agreements with our directors and executive officers that provide such persons with additional indemnification beyond that provided in our ninth amended and restated memorandum and articles of association.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers or persons controlling us under the foregoing provisions, we have been informed that in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

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*Directors' Fiduciary Duties.* Under Delaware corporate law, a director of a Delaware corporation has a fiduciary duty to the corporation and its shareholders. This duty has two components: the duty of care and the duty of loyalty. The duty of care requires that a director act in good faith, with the care that an ordinarily prudent person would exercise under similar circumstances. Under this duty, a director must inform himself of, and disclose to shareholders, all material information reasonably available regarding a significant transaction. The duty of loyalty requires that a director acts in a manner he reasonably believes to be in the best interests of the corporation. He must not use his corporate position for personal gain or advantage. This duty prohibits self-dealing by a director and mandates that the best interest of the corporation and its shareholders take precedence over any interest possessed by a director, officer or controlling shareholder and not shared by the shareholders generally. In general, actions of a director are presumed to have been made on an informed basis, in good faith and in the honest belief that the action taken was in the best interests of the corporation. However, this presumption may be rebutted by evidence of a breach of one of the fiduciary duties. Should such evidence be presented concerning a transaction by a director, the director must prove the procedural fairness of the transaction, and that the transaction was of fair value to the corporation.

As a matter of Cayman Islands law, a director of a Cayman Islands company is in the position of a fiduciary with respect to the company and therefore it is considered that he owes the following duties to the company—a duty to act in good faith in the best interests of the company, a duty not to make a personal profit based on his position as director (unless the company permits him to do so), a duty not to put himself in a position where the interests of the company conflict with his personal interest or his duty to a third party and a duty to exercise powers for the purpose for which such powers were intended. A director of a Cayman Islands company owes to the company a duty to act with skill and care. It was previously considered that a director need not exhibit in the performance of his duties a greater degree of skill than may reasonably be expected from a person of his knowledge and experience. However, English and Commonwealth courts have moved towards an objective standard with regard to the required skill and care and these authorities are likely to be followed in the Cayman Islands.

*Shareholder Action by Written Consent.* Under the Delaware General Corporation Law, a corporation may eliminate the right of shareholders to act by written consent by amendment to its certificate of incorporation. Cayman Islands law and our ninth amended and restated articles of association provide that shareholders may approve corporate matters by way of a unanimous written resolution signed by or on behalf of each shareholder who would have been entitled to vote on such matter at a general meeting without a meeting being held.

*Shareholder Proposals.* Under the Delaware General Corporation Law, a shareholder has the right to put any proposal before the annual meeting of shareholders, provided it complies with the notice provisions in the governing documents. A special meeting may be called by the board of directors or any other person authorized to do so in the governing documents, but shareholders may be precluded from calling special meetings.

*Cumulative Voting.* Under the Delaware General Corporation Law, cumulative voting for elections of directors is not permitted unless the corporation's certificate of incorporation specifically provides for it. Cumulative voting potentially facilitates the representation of minority shareholders on a board of directors since it permits the minority shareholder to cast all the votes to which the shareholder is entitled on a single director, which increases the shareholder's voting power with respect to electing such director. There are no prohibitions in relation to cumulative voting under the laws of the Cayman Islands but our ninth amended and restated articles of association do not provide for cumulative voting. As a result, our shareholders are not afforded any less protections or rights on this issue than shareholders of a Delaware corporation.

*Removal of Directors.* Under the Delaware General Corporation Law, a director of a corporation with a classified board may be removed only for cause with the approval of a majority of the outstanding shares entitled to vote, unless the certificate of incorporation provides otherwise. Under our ninth amended and restated articles of association, directors may be removed with or without cause, by an ordinary resolution of our shareholders with or without cause or by our directors for cause.

*Transactions with Interested Shareholders.* The Delaware General Corporation Law contains a business combination statute applicable to Delaware corporations whereby, unless the corporation has specifically elected not to be governed by such statute by amendment to its certificate of incorporation, it is prohibited from engaging in certain business combinations with an "interested shareholder" for three years following the date that such person becomes an interested shareholder. An interested shareholder generally is a person or a group who or which owns or owned 15% or more of the target's outstanding voting share within the past three years. This has the effect of limiting the ability of a potential acquirer to make a two-tiered bid for the target in which all shareholders would not be treated equally. The statute does not apply if, among other things, prior to the date on which such shareholder becomes an interested shareholder, the board of directors approves either the business combination or the transaction which resulted in the person becoming an interested shareholder. This encourages any potential acquirer of a Delaware corporation to negotiate the terms of any acquisition transaction with the target's board of directors.

Cayman Islands law has no comparable statute. As a result, we cannot avail ourselves of the types of protections afforded by the Delaware business combination statute. However, although Cayman Islands law does not regulate transactions between a company and its significant shareholders, it does provide that such transactions must be entered into bona fide in the best interests of the company and for a proper purpose and not with the effect of constituting a fraud on the minority shareholders.

*Dissolution; Winding up.* Under the Delaware General Corporation Law, unless the board of directors approves the proposal to dissolve, dissolution must be approved by shareholders holding 100% of the total voting power of the corporation. Only if the dissolution is initiated by the board of directors may it be approved by a simple majority of the corporation's outstanding shares. Delaware law allows a Delaware corporation to include in its certificate of incorporation a supermajority voting requirement in connection with dissolutions initiated by the board.

Under Cayman Islands law, a company may be wound up by either an order of the courts of the Cayman Islands or by a special resolution of its members or, if the company is unable to pay its debts as they fall due, by an ordinary resolution of its members. The court has authority to order winding up in a number of specified circumstances including where it is, in the opinion of the court, just and equitable to do so. Under the Companies Law and our ninth amended and restated articles of association, our company may be dissolved, liquidated or wound up by a special resolution of our shareholders, or by an ordinary resolution on the basis that our company is unable to pay its debts as they fall due.

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*Variation of Rights of Shares.* Under the Delaware General Corporation Law, a corporation may vary the rights of a class of shares with the approval of a majority of the outstanding shares of such class, unless the certificate of incorporation provides otherwise. Under Cayman Islands law and our post-offering amended and restated articles of association, if our share capital is divided into more than one class of shares, we may vary the rights attached to any class with the written consent of all the holders of the issued shares of that class or with the sanction of a special resolution at a separate meeting of the holders of the shares of that class.

*Amendment of Governing Documents.* Under the Delaware General Corporation Law, a corporation's governing documents may be amended with the approval of a majority of the outstanding shares entitled to vote, unless the certificate of incorporation provides otherwise. Under Cayman Islands law, our post-offering amended and restated memorandum and articles of association may only be amended with a special resolution of our shareholders.

*Rights of Non-resident or Foreign Shareholders.* There are no limitations imposed by our post-offering amended and restated memorandum and articles of association on the rights of non-resident or foreign shareholders to hold or exercise voting rights on our shares. In addition, there are no provisions in our post-offering amended and restated memorandum and articles of association governing the ownership threshold above which shareholder ownership must be disclosed.

#### **Description of Debt Securities, Warrants and Rights and Other Securities (Items 9.A.7, 12.A, 12.B and 12.C of Form 20-F)**

Not applicable.

#### **Description of American Depositary Shares (Items 12.D.1 and 12.D.2 of Form 20-F)**

JPMorgan Chase Bank, N.A. ("JPMorgan"), as depositary, registers and delivers ADSs. Each ADS will represent an ownership interest in a designated number of shares which we will deposit with the custodian, as agent of the depositary, under the deposit agreement among ourselves, the depositary and yourself as an ADR holder. In the future, each ADS will also represent any securities, cash or other property deposited with the depositary but which they have not distributed directly to you. Unless certificated ADRs are specifically requested by you, all ADSs will be issued on the books of our depositary in book-entry form and periodic statements will be mailed to you which reflect your ownership interest in such ADSs. In our description, references to American depositary receipts or ADRs shall include the statements you will receive which reflect your ownership of ADSs.

The depositary's office is located at 383 Madison Avenue, Floor 11, New York, NY 10179.

You may hold ADSs either directly or indirectly through your broker or other financial institution. If you hold ADSs directly, by having an ADS registered in your name on the books of the depositary, you are an ADR holder. This description assumes you hold your ADSs directly. If you hold the ADSs through your broker or financial institution nominee, you must rely on the procedures of such broker or financial institution to assert the rights of an ADR holder described in this section. You should consult with your broker or financial institution to find out what those procedures are.

As an ADR holder, we will not treat you as a shareholder of ours and you will not have any shareholder rights. Cayman Islands law governs shareholder rights. Because the depositary or its nominee will be the shareholder of record for the shares represented by all outstanding ADSs, shareholder rights rest with such record holder. Your rights are those of an ADR holder. Such rights derive from the terms of the deposit agreement to be entered into among us, the depositary and all registered holders from time to time of ADSs issued under the deposit agreement. The obligations of the depositary and its agents are also set out in the deposit agreement. Because the depositary or its nominee will actually be the registered owner of the shares, you must rely on it to exercise the rights of a shareholder on your behalf. The deposit agreement and the ADSs are governed by New York law. Under the deposit agreement, as an ADR holder, you agree that any legal suit, action or proceeding against or involving us or the depositary, arising out of or based upon the deposit agreement, the ADSs or the transactions contemplated thereby, may only be instituted in a state or federal court in New York, New York, and you irrevocably waive any objection which you may have to the laying of venue of any such proceeding and irrevocably submit to the exclusive jurisdiction of such courts in any such suit, action or proceeding.

The following is a summary of what we believe to be the material terms of the deposit agreement. Notwithstanding this, because it is a summary, it may not contain all the information that you may otherwise deem important. For more complete information, you should read the entire deposit agreement and the form of ADR which contains the terms of your ADSs. You can read a copy of the deposit agreement incorporated in this annual report by reference to Exhibit 4.3 of our Registration Statement on Form F-1/A (file No. 333-221034) filed with the Securities and Exchange Commission on December 1, 2017. You may also obtain a copy of the deposit agreement at the SEC's Public Reference Room which is located at 100 F Street, NE, Washington, DC 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-732-0330. You may also find the registration statement and the attached deposit agreement on the SEC's website at <http://www.sec.gov>.

#### **Share Dividends and Other Distributions**

##### ***How will I receive dividends and other distributions on the shares underlying my ADSs?***

We may make various types of distributions with respect to our securities. The depositary has agreed that, to the extent practicable, it will pay to you the cash dividends or other distributions it or the custodian receives on shares or other deposited securities, after converting any cash received into U.S. dollars (if it determines such conversion may be made on a reasonable basis) and, in all cases, making any necessary deductions provided for in the deposit agreement. The depositary may utilize a division, branch or affiliate of JPMorgan Chase Bank, N.A. to direct, manage and/or execute any public and/or private sale of securities under the deposit agreement. Such division, branch and/or affiliate may charge the depositary a fee in connection with such sales, which fee is considered an expense of the depositary. You will receive these distributions in proportion to the number of underlying securities that your ADSs represent.

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Except as stated below, the depositary will deliver such distributions to ADR holders in proportion to their interests in the following manner:

- *Cash.* The depositary will distribute any U.S. dollars available to it resulting from a cash dividend or other cash distribution or the net proceeds of sales of any other distribution or portion thereof (to the extent applicable), on an averaged or other practicable basis, subject to (i) appropriate adjustments for taxes withheld, (ii) such distribution being impermissible or impracticable with respect to certain registered ADR holders, and (iii) deduction of the depositary's and/or its agents' expenses in (1) converting any foreign currency to U.S. dollars to the extent that it determines that such conversion may be made on a reasonable basis, (2) transferring foreign currency or U.S. dollars to the United States by such means as the depositary may determine to the extent that it determines that such transfer may be made on a reasonable basis, (3) obtaining any approval or license of any governmental authority required for such conversion or transfer, which is obtainable at a reasonable cost and within a reasonable time and (4) making any sale by public or private means in any commercially reasonable manner. If exchange rates fluctuate during a time when the depositary cannot convert a foreign currency, you may lose some or all of the value of the distribution.
- *Shares.* In the case of a distribution in shares, the depositary will issue additional ADRs to evidence the number of ADSs representing such shares. Only whole ADSs will be issued. Any shares which would result in fractional ADSs will be sold and the net proceeds will be distributed in the same manner as cash to the ADR holders entitled thereto.
- *Rights to receive additional shares.* In the case of a distribution of rights to subscribe for additional shares or other rights, if we timely provide evidence satisfactory to the depositary that it may lawfully distribute such rights, the depositary will distribute warrants or other instruments in the discretion of the depositary representing such rights. However, if we do not timely furnish such evidence, the depositary may:
  - (i) sell such rights if practicable and distribute the net proceeds in the same manner as cash to the ADR holders entitled thereto; or
  - (ii) if it is not practicable to sell such rights by reason of the non-transferability of the rights, limited markets therefor, their short duration or otherwise, do nothing and allow such rights to lapse, in which case ADR holders will receive nothing and the rights may lapse.
- *Other Distributions.* In the case of a distribution of securities or property other than those described above, the depositary may either (i) distribute such securities or property in any manner it deems equitable and practicable or (ii) to the extent the depositary deems distribution of such securities or property not to be equitable and practicable, sell such securities or property and distribute any net proceeds in the same way it distributes cash.

If the depositary determines in its discretion that any distribution described above is not practicable with respect to any specific registered ADR holder, the depositary may choose any method of distribution that it deems practicable for such ADR holder, including the distribution of foreign currency, securities or property, or it may retain such items, without paying interest on or investing them, on behalf of the ADR holder as deposited securities, in which case the ADSs will also represent the retained items.

Any U.S. dollars will be distributed by checks drawn on a bank in the United States for whole dollars and cents. Fractional cents will be withheld without liability and dealt with by the depositary in accordance with its then current practices.

The depositary is not responsible if it fails to determine that any distribution or action is lawful or reasonably practicable.

There can be no assurance that the depositary will be able to convert any currency at a specified exchange rate or sell any property, rights, shares or other securities at a specified price, nor that any of such transactions can be completed within a specified time period. All purchases and sales of securities will be handled by the Depositary in accordance with its then current policies, which are currently set forth in the "Depositary Receipt Sale and Purchase of Security" section of <https://www.adr.com/Investors/FindOutAboutDRs>, the location and contents of which the Depositary shall be solely responsible for.

## **Deposit, Withdrawal and Cancellation**

### ***How does the depositary issue ADSs?***

The depositary will issue ADSs if you or your broker deposit shares or evidence of rights to receive shares with the custodian and pay the fees and expenses owing to the depositary in connection with such issuance.

Shares deposited in the future with the custodian must be accompanied by certain delivery documentation and shall, at the time of such deposit, be registered in the name of JPMorgan Chase Bank, N.A., as depositary for the benefit of holders of ADRs or in such other name as the depositary shall direct.

The custodian will hold all deposited shares for the account and to the order of the depositary. ADR holders thus have no direct ownership interest in the shares and only have such rights as are contained in the deposit agreement. The custodian will also hold any additional securities, property and cash received on or in substitution for the deposited shares. The deposited shares and any such additional items are referred to as "deposited securities".

Upon each deposit of shares, receipt of related delivery documentation and compliance with the other provisions of the deposit agreement, including the payment of the fees and charges of the depositary and any taxes or other fees or charges owing, the depositary will issue an ADR or ADRs in the name or upon the order of the person entitled thereto evidencing the number of ADSs to which such person is entitled. All of the ADSs issued will, unless specifically requested to the contrary, be part of the depositary's direct registration system, and a registered holder will receive periodic statements from the depositary which will show the number of ADSs registered in such holder's name. An ADR holder can request that the ADSs not be held through the depositary's direct registration system and that a certificated ADR be issued.

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### ***How do ADR holders cancel an ADS and obtain deposited securities?***

When you turn in your ADR certificate at the depositary's office, or when you provide proper instructions and documentation in the case of direct registration ADSs, the depositary will, upon payment of certain applicable fees, charges and taxes, deliver the underlying shares to you or upon your written order. Delivery of deposited securities in certificated form will be made at the custodian's office. At your risk, expense and request, the depositary may deliver deposited securities at such other place as you may request.

The depositary may only restrict the withdrawal of deposited securities in connection with:

- temporary delays caused by closing our transfer books or those of the depositary or the deposit of shares in connection with voting at a shareholders' meeting, or the payment of dividends;
- the payment of fees, taxes and similar charges; or
- compliance with any U.S. or foreign laws or governmental regulations relating to the ADRs or to the withdrawal of deposited securities.

This right of withdrawal may not be limited by any other provision of the deposit agreement.

### **Record Dates**

The depositary may, after consultation with us if practicable, fix record dates (which, to the extent applicable, shall be as near as practicable to any corresponding record dates set by us) for the determination of the registered ADR holders who will be entitled (or obligated, as the case may be):

- to receive any distribution on or in respect of deposited securities,
- to give instructions for the exercise of voting rights at a meeting of holders of shares,
- to pay the fee assessed by the depositary for administration of the ADR program and for any expenses as provided for in the ADR, or
- to receive any notice or to act in respect of other matters,

all subject to the provisions of the deposit agreement.

### **Voting Rights**

#### ***How do I vote?***

If you are an ADR holder and the depositary asks you to provide it with voting instructions, you may instruct the depositary how to exercise the voting rights for the shares which underlie your ADSs. Subject to the next sentence, as soon as practicable after receipt from us of notice of any meeting at which the holders of shares are entitled to vote, or of our solicitation of consents or proxies from holders of shares, the depositary shall fix the ADS record date in accordance with the provisions of the deposit agreement in respect of such meeting or solicitation of consent or proxy. The depositary shall, if we request in writing in a timely manner (the depositary having no obligation to take any further action if our request shall not have been received by the depositary at least 30 days prior to the date of such vote or meeting) and at our expense and provided no legal prohibitions exist, distribute to the registered ADR holders a notice stating such information as is contained in the voting materials received by the depositary and describing how you may instruct, or, subject to the next sentence, will be deemed to instruct, the depositary to exercise the voting rights for the shares which underlie your ADSs, including instructions for giving a discretionary proxy to a person designated by us. To the extent we have provided the depositary with at least 40 days' notice of a proposed meeting, if voting instructions are not timely received by the depositary from any holder, such holder shall be deemed, and in the deposit agreement the depositary is instructed to deem such holder, to have instructed the depositary to give a discretionary proxy to a person designated by us to vote the shares represented by their ADSs as desired, provided that no such instruction shall be deemed given and no discretionary proxy shall be given (a) if we inform the depositary in writing that (i) we do not wish such proxy to be given, (ii) substantial opposition exists with respect to any agenda item for which the proxy would be given or (iii) the agenda item in question, if approved, would materially or adversely affect the rights of holders of shares and (b) unless, with respect to such meeting, we have provided the depositary with an opinion of our counsel, in form and substance satisfactory to the depositary, to the effect that (a) the granting of such discretionary proxy does not subject the depositary to any reporting obligations in the Cayman Islands, (b) the granting of such proxy will not result in a violation of Cayman Island law, rule, regulation or permit and (c) the voting arrangement and deemed instruction as contemplated herein will be given effect under Cayman Island law.

Holders are strongly encouraged to forward their voting instructions to the depositary as soon as possible. For instructions to be valid, the ADR department of the depositary that is responsible for proxies and voting must receive them in the manner and on or before the time specified, notwithstanding that such instructions may have been physically received by the depositary prior to such time. The depositary will not itself exercise any voting discretion. Furthermore, neither the depositary nor its agents are responsible for any failure to carry out any voting instructions, for the manner in which any vote is cast or for the effect of any vote. Notwithstanding anything contained in the deposit agreement or any ADR, the depositary may, to the extent not prohibited by law or regulations, or by the requirements of the stock exchange on which the ADSs are listed, in lieu of distribution of the materials provided to the depositary in connection with any meeting of, or solicitation of consents or proxies from, holders of deposited securities, distribute to the registered holders of ADRs a notice that provides such holders with, or otherwise publicizes to such holders, instructions on how to retrieve such materials or receive such materials upon request (i.e., by reference to a website containing the materials for retrieval or a contact for requesting copies of the materials).

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We have advised the depositary that under the Cayman Islands law and our constituent documents, each as in effect as of the date of the deposit agreement, voting at any general meeting of shareholders is by a poll save that the chairman of the meeting may in good faith, allow a resolution which relates purely to a procedural or administrative matter to be voted on by a show of hands in accordance with relevant provisions in the Memorandum and Articles of Association of the Company. In the event that voting on any resolution or matter is conducted on a show of hands basis in accordance with our constituent documents, the depositary will refrain from voting and the voting instructions received by the depositary from holders shall lapse. The depositary will not demand a poll or join in demanding a poll, whether or not requested to do so by holders of ADSs.

There is no guarantee that you will receive voting materials in time to instruct the depositary to vote and it is possible that you, or persons who hold their ADSs through brokers, dealers or other third parties, will not have the opportunity to exercise a right to vote.

## **Reports and Other Communications**

### ***Will ADR holders be able to view our reports?***

The depositary will make available for inspection by ADR holders at the offices of the depositary and the custodian the deposit agreement, the provisions of or governing deposited securities, and any written communications from us which are both received by the custodian or its nominee as a holder of deposited securities and made generally available to the holders of deposited securities.

Additionally, if we make any written communications generally available to holders of our shares, and we furnish copies thereof (or English translations or summaries) to the depositary, it will distribute the same to registered ADR holders.

## **Reclassifications, Recapitalizations and Mergers**

If we take certain actions that affect the deposited securities, including (i) any change in par value, split-up, consolidation, cancellation or other reclassification of deposited securities or (ii) any distributions of shares or other property not made to holders of ADRs or (iii) any recapitalization, reorganization, merger, consolidation, liquidation, receivership, bankruptcy or sale of all or substantially all of our assets, then the depositary may choose to, and shall if reasonably requested by us:

- (1) amend the form of ADR;
- (2) distribute additional or amended ADRs;
- (3) distribute cash, securities or other property it has received in connection with such actions;
- (4) sell any securities or property received and distribute the proceeds as cash; or
- (5) none of the above.

If the depositary does not choose any of the above options, any of the cash, securities or other property it receives will constitute part of the deposited securities and each ADS will then represent a proportionate interest in such property.

## **Amendment and Termination**

### ***How may the deposit agreement be amended?***

We may agree with the depositary to amend the deposit agreement and the ADSs without your consent for any reason. ADR holders must be given at least 30 days' notice of any amendment that imposes or increases any fees or charges (other than stock transfer or other taxes and other governmental charges, transfer or registration fees, SWIFT, cable, telex or facsimile transmission costs, delivery costs or other such expenses), or otherwise prejudices any substantial existing right of ADR holders. Such notice need not describe in detail the specific amendments effectuated thereby, but must identify to ADR holders a means to access the text of such amendment. If an ADR holder continues to hold an ADR or ADRs after being so notified, such ADR holder is deemed to agree to such amendment and to be bound by the deposit agreement as so amended. Notwithstanding the foregoing, if any governmental body or regulatory body should adopt new laws, rules or regulations which would require amendment or supplement of the deposit agreement or the form of ADR to ensure compliance therewith, we and the depositary may amend or supplement the deposit agreement and the ADR at any time in accordance with such changed laws, rules or regulations, which amendment or supplement may take effect before a notice is given or within any other period of time as required for compliance. No amendment, however, will impair your right to surrender your ADSs and receive the underlying securities, except in order to comply with mandatory provisions of applicable law.

### ***How may the deposit agreement be terminated?***

The depositary may, and shall at our written direction, terminate the deposit agreement and the ADRs by mailing notice of such termination to us and the registered holders of ADRs at least 30 days prior to the date fixed in such notice for such termination; provided, however, if the depositary shall have (i) resigned as depositary under the deposit agreement, notice of such termination by the depositary shall not be provided to registered holders unless a successor depositary shall not be operating under the deposit agreement within 60 days of the date of such resignation, and (ii) been removed as depositary under the deposit agreement, notice of such termination by the depositary shall not be provided to registered holders of ADRs unless a successor depositary shall not be operating under the deposit agreement on the 90th day after our notice of removal was first provided to the depositary. The depositary may terminate the deposit agreement upon 30 days' notice to us and the registered holders of ADR under the following circumstances: (i) in the event of the Company's bankruptcy or insolvency, (ii) if the Company's shares are de-listed, (iii) if the Company effects (or will effect) a redemption of all or substantially all of the deposited securities, or a cash or share distribution representing a return of all or substantially all of the value of the Deposited Securities, or (iv) there occurs a merger, consolidation, sale of all or substantially all assets or other transaction as a result of which securities or other property are delivered in exchange for or in lieu of deposited securities. After the date so fixed for termination, (a) all direct registration ADRs shall cease to be eligible for the direct registration

system and shall be considered ADRs issued on the ADR register maintained by the depositary and (b) the depositary shall use its reasonable efforts to ensure that the ADSs cease to be DTC eligible so that neither DTC nor any of its nominees shall thereafter be a registered holder of ADRs. At such time as the ADSs cease to be DTC eligible and/or neither DTC nor any of its nominees is a registered holder of ADRs, the depositary shall (a) instruct its custodian to deliver all shares to us along with a general stock power that refers to the names set forth on the ADR register maintained by the depositary and (b) provide us with a copy of the ADR register maintained by the depositary. Upon receipt of such shares and the ADR register maintained by the depositary, we have agreed to use our best efforts to issue to each registered holder a Share certificate representing the Shares represented by the ADSs reflected on the ADR register maintained by the depositary in such registered holder's name and to deliver such Share certificate to the registered holder at the address set forth on the ADR register maintained by the depositary. After providing such instruction to the custodian and delivering a copy of the ADR register to us, the depositary and its agents will perform no further acts under the deposit agreement or the ADRs and shall cease to have any obligations under the deposit agreement and/or the ADRs.

### **Limitations on Obligations and Liability to ADR holders**

#### ***Limits on our obligations and the obligations of the depositary; limits on liability to ADR holders and holders of ADSs***

Prior to the issue, registration, registration of transfer, split-up, combination, or cancellation of any ADRs, or the delivery of any distribution in respect thereof, and from time to time in the case of the production of proofs as described below, we or the depositary or its custodian may require:

- payment with respect thereto of (i) any stock transfer or other tax or other governmental charge, (ii) any stock transfer or registration fees in effect for the registration of transfers of shares or other deposited securities upon any applicable register and (iii) any applicable fees and expenses described in the deposit agreement;
- the production of proof satisfactory to it of (i) the identity of any signatory and genuineness of any signature and (ii) such other information, including without limitation, information as to citizenship, residence, exchange control approval, beneficial ownership of any securities, compliance with applicable law, regulations, provisions of or governing deposited securities and terms of the deposit agreement and the ADRs, as it may deem necessary or proper; and
- compliance with such regulations as the depositary may establish consistent with the deposit agreement.

The issuance of ADRs, the acceptance of deposits of shares, the registration, registration of transfer, split-up or combination of ADRs or the withdrawal of shares, may be suspended, generally or in particular instances, when the ADR register or any register for deposited securities is closed or when any such action is deemed advisable by the depositary; provided that the ability to withdraw shares may only be limited under the following circumstances:

(i) temporary delays caused by closing transfer books of the depositary or our transfer books or the deposit of shares in connection with voting at a shareholders' meeting, or the payment of dividends, (ii) the payment of fees, taxes, and similar charges, and (iii) compliance with any laws or governmental regulations relating to ADRs or to the withdrawal of deposited securities.

The deposit agreement expressly limits the obligations and liability of the depositary, ourselves and our respective agents, provided, however, that no disclaimer of liability under the Securities Act of 1933 is intended by any of the limitations of liabilities provisions of the deposit agreement. In the deposit agreement it provides that neither we nor the depositary nor any such agent will be liable if:

- any present or future law, rule, regulation, fiat, order or decree of the United States, the Cayman Islands, the People's Republic of China (including the Hong Kong Special Administrative Region, the People's Republic of China) or any other country or jurisdiction, or of any governmental or regulatory authority or securities exchange or market or automated quotation system, the provisions of or governing any deposited securities, any present or future provision of our charter, any act of God, war, terrorism, nationalization, expropriation, currency restrictions, work stoppage, strike, civil unrest, revolutions, rebellions, explosions, computer failure or circumstance beyond our, the depositary's or our respective agents' direct and immediate control shall prevent or delay, or shall cause any of them to be subject to any civil or criminal penalty in connection with, any act which the deposit agreement or the ADRs provide shall be done or performed by us, the depositary or our respective agents (including, without limitation, voting);
- it exercises or fails to exercise discretion under the deposit agreement or the ADRs including, without limitation, any failure to determine that any distribution or action may be lawful or reasonably practicable;
- it performs its obligations under the deposit agreement and ADRs without gross negligence or willful misconduct;
- it takes any action or refrains from taking any action in reliance upon the advice of or information from legal counsel, accountants, any person presenting shares for deposit, any registered holder of ADRs, or any other person believed by it to be competent to give such advice or information; or
- it relies upon any written notice, request, direction, instruction or document believed by it to be genuine and to have been signed, presented or given by the proper party or parties.

Neither the depositary nor its agents have any obligation to appear in, prosecute or defend any action, suit or other proceeding in respect of any deposited securities or the ADRs. We and our agents shall only be obligated to appear in, prosecute or defend any action, suit or other proceeding in respect of any deposited securities or the ADRs, which in our opinion may involve us in expense or liability, if indemnity satisfactory to us against all expense (including fees and disbursements of counsel) and liability is furnished as often as may be required. The depositary and its agents may fully respond to any and all demands or requests for information maintained by or on its behalf in connection with the deposit agreement, any registered holder or holders of ADRs, any ADRs or otherwise related to the deposit agreement or ADRs to the extent such information is requested or required by or pursuant to any lawful authority, including without limitation laws, rules, regulations, administrative or judicial process, banking, securities or other regulators. The depositary shall not be liable for the acts or omissions made by, or the insolvency of, any securities depositary, clearing agency or settlement system. Furthermore, the depositary shall not be responsible for, and shall incur no liability in connection with or arising from, the insolvency of any custodian that is not a branch or affiliate of JPMorgan Chase Bank, N.A.

Notwithstanding anything to the contrary contained in the deposit agreement or any ADRs, the depository shall not be responsible for, and shall incur no liability in connection with or arising from, any act or omission to act on the part of the custodian except to the extent that the custodian has (i) committed fraud or willful misconduct in the provision of custodial services to the depository or (ii) failed to use reasonable care in the provision of custodial services to the depository as determined in accordance with the standards prevailing in the jurisdiction in which the custodian is located. The depository and the custodian(s) may use third party delivery services and providers of information regarding matters such as pricing, proxy voting, corporate actions, class action litigation and other services in connection with the ADRs and the deposit agreement, and use local agents to provide extraordinary services such as attendance at annual meetings of issuers of securities. Although the depository and the custodian will use reasonable care (and cause their agents to use reasonable care) in the selection and retention of such third party providers and local agents, they will not be responsible for any errors or omissions made by them in providing the relevant information or services. The depository shall not have any liability for the price received in connection with any sale of securities, the timing thereof or any delay in action or omission to act nor shall it be responsible for any error or delay in action, omission to act, default or negligence on the part of the party so retained in connection with any such sale or proposed sale.

The depository has no obligation to inform ADR holders or other holders of an interest in any ADSs about the requirements of Cayman Islands or People's Republic of China law, rules or regulations or any changes therein or thereto.

Additionally, none of us, the depository or the custodian shall be liable for the failure by any registered holder of ADRs or beneficial owner therein to obtain the benefits of credits on the basis of non-U.S. tax paid against such holder's or beneficial owner's income tax liability. Neither we nor the depository shall incur any liability for any tax consequences that may be incurred by registered holders or beneficial owners on account of their ownership of ADRs or ADSs.

Neither the depository nor its agents will be responsible for any failure to carry out any instructions to vote any of the deposited securities, for the manner in which any such vote is cast or for the effect of any such vote. The depository may rely upon instructions from us or our counsel in respect of any approval or license required for any currency conversion, transfer or distribution. The depository shall not incur any liability for the content of any information submitted to it by us or on our behalf for distribution to ADR holders or for any inaccuracy of any translation thereof, for any investment risk associated with acquiring an interest in the deposited securities, for the validity or worth of the deposited securities, for the credit-worthiness of any third party, for allowing any rights to lapse upon the terms of the deposit agreement or for the failure or timeliness of any notice from us. The depository shall not be liable for any acts or omissions made by a successor depository whether in connection with a previous act or omission of the depository or in connection with any matter arising wholly after the removal or resignation of the depository. Neither the depository nor any of its agents shall be liable to registered holders or beneficial owners of interests in ADSs for any indirect, special, punitive or consequential damages (including, without limitation, legal fees and expenses) or lost profits, in each case of any form incurred by any person or entity, whether or not foreseeable and regardless of the type of action in which such a claim may be brought.

In the deposit agreement each party thereto (including, for avoidance of doubt, each holder and beneficial owner and/or holder of interests in ADRs) irrevocably waives, to the fullest extent permitted by applicable law, any right it may have to a trial by jury in any suit, action or proceeding against the depository and/or us directly or indirectly arising out of or relating to the shares or other deposited securities, the ADSs or the ADRs, the deposit agreement or any transaction contemplated therein, or the breach thereof (whether based on contract, tort, common law or any other theory).

The depository and its agents may own and deal in any class of securities of our company and our affiliates and in ADRs.

#### **Disclosure of Interest in ADSs**

To the extent that the provisions of or governing any deposited securities may require disclosure of or impose limits on beneficial or other ownership of deposited securities, other shares and other securities and may provide for blocking transfer, voting or other rights to enforce such disclosure or limits, you agree to comply with all such disclosure requirements and ownership limitations and to comply with any reasonable instructions we may provide in respect thereof. We reserve the right to instruct you to deliver your ADSs for cancellation and withdrawal of the deposited securities so as to permit us to deal with you directly as a holder of shares and, by holding an ADS or an interest therein, you will be agreeing to comply with such instructions.

#### **Books of Depository**

The depository or its agent will maintain a register for the registration, registration of transfer, combination and split-up of ADRs, which register shall include the depository's direct registration system. Registered holders of ADRs may inspect such records at the depository's office at all reasonable times, but solely for the purpose of communicating with other holders in the interest of the business of our company or a matter relating to the deposit agreement. Such register may be closed at any time or from time to time, when deemed expedient by the depository or, in the case of the issuance book portion of the ADR Register, when reasonably requested by the Company solely in order to enable the Company to comply with applicable law.

The depository will maintain facilities for the delivery and receipt of ADRs.

#### **Appointment**

In the deposit agreement, each registered holder of ADRs and each person holding an interest in ADSs, upon acceptance of any ADSs (or any interest therein) issued in accordance with the terms and conditions of the deposit agreement will be deemed for all purposes to:

- be a party to and bound by the terms of the deposit agreement and the applicable ADR or ADRs, and
  - appoint the depository its attorney-in-fact, with full power to delegate, to act on its behalf and to take any and all actions contemplated in the deposit agreement and the applicable ADR or ADRs, to adopt any and all procedures necessary to comply with applicable laws and to take such action as the depository in its sole discretion may deem necessary or appropriate to carry out the purposes of the deposit agreement and the applicable ADR and ADRs, the taking of such actions to be the conclusive determinant of the necessity and appropriateness thereof.
-

## Governing Law

The deposit agreement and the ADRs shall be governed by and construed in accordance with the laws of the State of New York. In the deposit agreement, we have submitted to the jurisdiction of the courts of the State of New York and appointed an agent for service of process on our behalf. Notwithstanding the foregoing, (i) any action based on the deposit agreement or the transactions contemplated thereby may be instituted by the depositary in any competent court in the Cayman Islands, Hong Kong, the People's Republic of China and/or the United States, (ii) the depositary may, in its sole discretion, elect to institute any action, controversy, claim or dispute directly or indirectly based on, arising out of or relating to the deposit agreement or the ADRs or the transactions contemplated thereby, including without limitation any question regarding its or their existence, validity, interpretation, performance or termination, against any other party or parties to the deposit agreement (including, without limitation, against ADR holders and owners of interests in ADSs), by having the matter referred to and finally resolved by an arbitration conducted under the terms described below, and (iii) the depositary may in its sole discretion require that any action, controversy, claim, dispute, legal suit or proceeding brought against the depositary by any party or parties to the deposit agreement (including, without limitation, by ADR holders and owners of interests in ADSs) shall be referred to and finally settled by an arbitration conducted under the terms described below. Any such arbitration shall be conducted in the English language either in New York, New York in accordance with the Commercial Arbitration Rules of the American Arbitration Association or in Hong Kong following the arbitration rules of the United Nations Commission on International Trade Law (UNCITRAL).

By holding an ADS or an interest therein, registered holders of ADRs and owners of ADSs each irrevocably agree that any legal suit, action or proceeding against or involving us or the depositary, arising out of or based upon the deposit agreement, the ADSs or the transactions contemplated thereby, may only be instituted in a state or federal court in New York, New York, and each irrevocably waives any objection which it may have to the laying of venue of any such proceeding, and irrevocably submits to the exclusive jurisdiction of such courts in any such suit, action or proceeding.

## List of Subsidiaries of iClick Interactive Asia Group Limited

Name	Subsidiaries	Place of Incorporation
Optimix Media Asia Limited	100%	Hong Kong
iClick Interactive Asia Limited	100%	Hong Kong
Digital Marketing Group Limited	100%	Hong Kong
Tetris Media Limited	100%	Hong Kong
iClick Interactive (Singapore) Pte. Ltd.	100%	Singapore
Performance Media Group Limited	100%	Hong Kong
iClick Data Technology (Beijing) Limited	100%	People's Republic of China
Tetris Media (Shanghai) Co., Ltd.	100%	People's Republic of China
Diablo Holdings Corporation	100%	British Virgin Islands
Harmattan Capital Holdings Corporation	100%	British Virgin Islands
China Search (Asia) Limited	100%	Hong Kong
Search Asia Technology (Shenzhen) Co., Ltd.	100%	People's Republic of China
OptAim Limited	100%	Cayman Islands
OptAim (HK) Limited	100%	Hong Kong
OptAim (Beijing) Information Technology Co., Ltd.	100%	People's Republic of China
Anhui Zhiyunzhong Information Technology Co., Ltd.	100%	People's Republic of China
Beijing OptAim Network Technology Co., Ltd.	100% <sup>(1)</sup>	People's Republic of China
Zhiyunzhong (Shanghai) Technology Co., Ltd.	100% <sup>(2)</sup>	People's Republic of China
Shanghai Myhayo Technology Co., Ltd.	40% <sup>(2)</sup>	People's Republic of China
Anhui Myhayo Technology Co., Ltd.	37% <sup>(2)</sup>	People's Republic of China
Changyi (Shanghai) Information Technology Ltd.	42%	People's Republic of China
Xi'an Changzhan Information Technology Ltd.	42%	People's Republic of China
iClick Interactive Asia Limited, Taiwan Branch	100% <sup>(3)</sup>	Taiwan

(1) VIE.

(2) VIE's subsidiary.

(3) Subsidiary's branch.

**Certification by the Principal Executive Officer  
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, Jian Tang, certify that:

1. I have reviewed this annual report on Form 20-F of iClick Interactive Asia Group Limited;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;
4. The company's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by this annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting;
5. The company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date: April 30, 2020

By: /s/ Jian Tang  
Name: Jian Tang  
Title: Chief Executive Officer

**Certification by the Principal Financial Officer  
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, Terence Li, certify that:

1. I have reviewed this annual report on Form 20-F of iClick Interactive Asia Group Limited;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;
4. The company's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rule 13a-15(f) and 15d-15(f)) for the company and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and
5. The company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent function):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date: April 30, 2020

By: /s/ Terence Li  
Name: Terence Li  
Title: Chief Financial Officer

**Certification by the Principal Executive Officer  
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

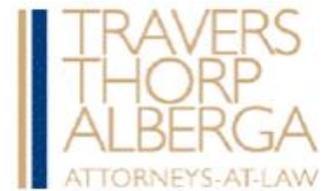
In connection with the Annual Report of (the "Company") on Form 20-F for the fiscal year ended December 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Jian Tang, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: April 30, 2020

By: /s/ Jian Tang  
Name: Jian Tang  
Title: Chief Executive Officer





**Office:** +852 2801 6066  
**Mobile:** +852 9718 8740  
**Email:** rthorp@tta.lawyer

iClick Interactive Asia Group Limited  
15/F Prosperity Millennia Plaza  
663 King's Road  
Quarry Bay  
Hong Kong S.A.R.

30 April 2020

Dear Sirs,

**iClick Interactive Asia Group Limited**

We have acted as legal advisers as to the laws of the Cayman Islands to iClick Interactive Asia Group Limited, a Cayman Islands exempted company incorporated with limited liability (the "**Company**"), in connection with the filing by the Company with the United States Securities and Exchange Commission (the "**SEC**") of an annual report on Form 20-F for the year ended 31 December 2019 ("**Form 20-F**").

We hereby consent to the reference of our name under the headings, "Item 10.E Additional Information—Taxation—Cayman Islands Taxation" in the Form 20-F, and further consent to the incorporation by reference of the summaries of our opinions under these captions into iClick Interactive Asia Group Limited's registration statement on Form S-8 (File No. 333-225568) that was filed on 12 June 2018 and Form S-8 (File No. 333- 227747) that was filed on 9 October 2018.

Yours faithfully

/s/ Travers Thorp Alberga

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**TRAVERS THORP ALBERGA**

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Fax: +852 2801 6767 60 Wyndham Street  
[www.traversthorpalberga.com](http://www.traversthorpalberga.com) Central HONG KONG  
Cayman Islands & British Virgin Islands Attorneys-at-Law  
**Resident Hong Kong Partners:** Anthony Travers  
Richard Thorp, Jos Briggs, Anna Peccarino

競天公誠律師事務所

JINGTIAN & GONGCHENG

北京市朝阳区建国路 77 号华贸中心 3 号写字楼 34 层 邮编: 100025  
电话: (86-10) 5809-1000 传真: (86-10) 5809-1100

April 30, 2020

iClick Interactive Asia Group Limited  
15/F, Prosperity Millennia Plaza  
663 King's Road, Quarry Bay  
Hong Kong S.A.R., People's Republic of China

Dear Sir/Madam:

We consent to the reference to our firm under the headings “Item 3. Key Information—D. Risk Factors—Risks Related to Our Corporate Structure” “Item 4. Information On the Company—B. Business Overview—Regulation—Regulations on Foreign-related Surveys Measures” “Item 4. Information On the Company—C. Organizational Structure” in the Annual Report of iClick Interactive Asia Group Limited on Form 20-F for the year ended December 31, 2019, which will be filed with the Securities and Exchange Commission in the month of April 2020.

In giving such consent, we do not hereby admit that we come within the category of persons whose consent is required under Section 7 of the Securities Act of 1933, or under the Securities Exchange Act of 1934, in each case, as amended, or the regulations promulgated thereunder.

Yours faithfully,

/s/ Jingtian & Gongcheng

Jingtian & Gongcheng

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (No. 333-225568, and No. 333-227747) of iClick Interactive Asia Group Limited of our report dated April 30, 2020 relating to the consolidated financial statements, which appears in this Form 20-F.

/s/ PricewaterhouseCoopers  
Hong Kong  
April 30, 2020