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

SCHEDULE 13D

Under the Securities Exchange Act of 1934 (Amendment No. 3)*

MOMO INC.

(Name of Issuer)

CLASS A ORDINARY SHARES, par value \$0.0001 per share

(Title of Class of Securities)

60879B107**

(CUSIP Number)

Timothy A. Steinert, Esq.
Alibaba Group Holding Limited
c/o Alibaba Group Services Limited
26/F Tower One, Times Square
1 Matheson Street, Causeway Bay
Hong Kong
Tel: +852,2215,5100

With a copy to:

Kathryn King Sudol, Esq. Simpson Thacher & Bartlett ICBC Tower – 35th Floor 3 Garden Road, Central Hong Kong Tel: +852.2514.7600

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

March 9, 2017

(Date of Event Which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box. o

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See §240. 13d-7 for other parties to whom copies are to be sent.

- * The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.
- ** This CUSIP number applies to the Issuer's American depositary shares ("ADSs"), each representing two Class A Ordinary Shares.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No. 60879B107

- 1. Name of Reporting Person Alibaba Investment Limited
- 2. Check the Appropriate Box if a Member of a Group
 - (a)

3.	SEC Use Only			
4.	Source of Funds Not applicable			
5.	Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e) o			
6.	Citizenship or Place of Organization British Virgin Islands			
	7.	Sole Voting Power 58,869,140 Class A Ordinary Shares (1)		
Number of Shares	8.	Shared Voting Power 0		
Beneficially Owned by Each Reporting Person With	9.	Sole Dispositive Power 58,869,140 Class A Ordinary Shares (1)		
	10.	Shared Dispositive Power 0		
11.	Aggregate Amount Beneficially Owned by Each Reporting Person 58,869,140 Class A Ordinary Shares (1)			
12.	Check if the Aggregate Amount in Row (11) Excludes Certain Shares o			
13.	Percent of Class Represented by Amount in Row (11) 20.2% of Class A Ordinary Shares issued and outstanding ⁽²⁾ (representing 4.7% of the voting power of the total issued and outstanding Ordinary Shares (including Class A and Class B Ordinary Shares) ⁽³⁾			
14.	Type of Reporting Person CO			
		ons are deemed to beneficially own 58,869,140 Class A Ordinary Shares, a portion of which are held in the form of American he "ADSs"). Each ADS representents two Class A Ordinary Shares.		

(b)

(1)

(3)

Based on an aggregate of 388,948,435 Ordinary Shares (including Class A and Class B Ordinary Shares) issued and outstanding as of December 31,

Each Class B Ordinary Share is entitled to ten (10) votes per share, and each Class A Ordinary Share is entitled to one vote per share.

⁽²⁾ 2016, as disclosed in the Issuer's current report on Form 6-K filed with the Securities and Exchange Commission on March 8, 2017, including 96,886,370 Class B Ordinary Shares issued and outstanding, as disclosed in the Schedule 13D/A filed by Gallant Future Holdings Limited, among other persons, with the Securities and Exchange Commission on August 23, 2016.

1.	Name of Reporting Person Alibaba Group Holding Limited					
2.	2. Check the Appropriate Box if a Member of a Group					
	(a)	0				
	(b)	X				
3.	SEC Use Only					
4.	Source of Funds Not applicable					
5.	Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e) o					
6.	Citizenship or Place of Organization Cayman Islands					
	7.	Sole Voting Power 58,869,140 Class A Ordinary Shares (1)				
Number of Shares Beneficially Owned by Each Reporting Person With	8.	Shared Voting Power 0				
	9.	Sole Dispositive Power 58,869,140 Class A Ordinary Shares (1)				
	10.	Shared Dispositive Power 0				
11.	Aggregate Amount Beneficially Owned by Each Reporting Person 58,869,140 Class A Ordinary Shares (1)					
12.	Check if the Aggregate Amount in Row (11) Excludes Certain Shares o					
13.	Percent of Class Represented by Amount in Row (11) 20.2% of Class A Ordinary Shares issued and outstanding ⁽²⁾ (representing 4.7% of the voting power of the total issued and outstanding Ordinary Shares (including Class A and Class B Ordinary Shares) ⁽³⁾					

- 14. Type of Reporting Person CO
- (1) The Reporting Persons are deemed to beneficially own 58,869,140 Class A Ordinary Shares, a portion of which are held in the form of American depositary shares (the "ADSs"). Each ADS representents two Class A Ordinary Shares.
- (2) Based on an aggregate of 388,948,435 Ordinary Shares (including Class A and Class B Ordinary Shares) issued and outstanding as of December 31, 2016, as disclosed in the Issuer's current report on Form 6-K filed with the Securities and Exchange Commission on March 8, 2017, including 96,886,370 Class B Ordinary Shares issued and outstanding, as disclosed in the Schedule 13D/A filed by Gallant Future Holdings Limited, among other persons, with the Securities and Exchange Commission on August 23, 2016.
- (3) Each Class B Ordinary Share is entitled to ten (10) votes per share, and each Class A Ordinary Share is entitled to one vote per share.

3

Introductory Note

This Amendment No. 3 to Schedule 13D (this "Amendment No. 3") hereby amends and supplements the statement on Schedule 13D filed with the U.S. Securities and Exchange Commission on April 7, 2016 (the "Initial Filing") on behalf of the Reporting Persons, as amended by Amendment No. 1 to the Initial Filing filed on August 19, 2016 and Amendment No. 2 to the Initial Filing filed on November 15, 2016 (together with the Initial Filing, the "Original Schedule 13D"), with respect to the Class A Ordinary Shares of Momo Inc., a Cayman Islands company (the "Issuer"), including certain Class A Ordinary Shares represented by ADSs. Except as amended or supplemented herein, the information set forth in the Original Schedule 13D remains unchanged, and capitalized terms used but not defined herein have the meanings assigned thereto in the Original Schedule 13D. The agreement among the Reporting Persons relating to the joint filing of this Amendment No. 3 is incorporated hereto as Exhibit 99.1.

Item 2. Identity and Background

Schedules A-1 and A-2 of the Original Schedule 13D are hereby amended and replaced in their entirety by Schedules A-1 and A-2 hereof.

Item 4. Purpose of Transaction

The Reporting Persons acquired the securities covered by this 13D for investment purposes and intend to review their investment in the Issuer on a continuous basis. Depending upon various factors, including but not limited to the Reporting Persons' and the Issuer's business, prospects and financial condition and other developments concerning the Reporting Persons and the Issuer, market conditions and other factors that the Reporting Persons may deem relevant to their investment decision, and subject to compliance with applicable laws, rules and regulations, the Reporting Persons may in the future take actions with respect to their investment in the Issuer as they deem appropriate, including changing their current intentions or increasing or decreasing their investment in the Issuer, with respect to any or all matters required to be disclosed in this Schedule 13D.

Other than as set forth in this Amendment No. 3, the Reporting Persons have no present plans or proposals which relate to or would result in any of the matters set forth in clauses (a) through (j) of Item 4 of Schedule 13D; provided that the Reporting Persons may, at any time, review or reconsider their position with respect to the Issuer and reserve the right to develop such plans or proposals.

4

Item 5. Interests in Securities of the Issuer

Item 5 of the Original Schedule 13D is hereby amended by replacing Items 5(a), (b) and (c) in their entirety as follows:

(a)-(b) The responses of each Reporting Person to Rows (7) through (13) of the cover pages of this Amendment No. 3 are hereby incorporated by reference in this Item 5. The percentage of the class of securities identified pursuant to Item 1 beneficially owned by each Reporting Person is based on an aggregate of 388,948,435 Ordinary Shares (including Class A and Class B Ordinary Shares) issued and outstanding as of December 31, 2016, as disclosed in the Company's current report on Form 6-K filed with the Securities and Exchange Commission on March 8, 2017, including 96,886,370 Class B Ordinary Shares issued and outstanding, as disclosed in the Schedule 13D/A filed by Gallant Future Holdings Limited, among other persons, with the Securities and Exchange Commission on August 23, 2016. Each Class B Ordinary Share is entitled to ten (10) votes per share, and each Class A Ordinary Share is entitled to one vote per share.

Except as disclosed in this Schedule 13D, none of the Reporting Persons nor, to the best of their knowledge, any of the persons listed in Schedule A-1 or A-2 hereto, beneficially owns any Ordinary Shares or has the right to acquire any Ordinary Shares.

Except as disclosed in this Schedule 13D, none of the Reporting Persons nor, to the best of their knowledge, any of the persons listed in Schedule A-1 or A-2 hereto, presently has the power to vote or to direct the vote or to dispose or direct the disposition of any of the Ordinary Shares which it may be deemed to beneficially own.

(c) On November 10, 2016, AIL disposed of an aggregate of 5,000,000 ADS beneficially held by the Reporting Persons for US\$22.16 per ADS through brokered trading transactions.

On March 9, 2017, the Reporting Persons disposed of (i) 3,710,000 ADS beneficially held by the Reporting Persons at a price of US\$29.1000 per ADS, (ii) an aggregate of 353,623 ADS beneficially held by the Reporting Persons at an average price of US\$31.2016¹ per ADS, (iii) an aggregate of 288,783 ADS

beneficially held by the Reporting Persons at an average price of US\$32.2779² per ADS, and (iv) an aggregate of 87,594 ADS beneficially held by the Reporting Persons at an average price of US\$32.7636³ per ADS through brokered trading transactions.⁴

Item 7. Material to Be Filed as Exhibits

Exhibit	Description		
99.1	Joint Filing Agreement, dated April 7, 2016, by and between the Reporting Persons.*		

- ¹ The sales were executed in multiple transactions ranging from US\$30.6600 to US\$31.6590 per share. The price above reflects the weighted-average price per share. The Reporting Persons undertake to provide full information regarding the number of shares sold at each separate price upon request by the staff of the Securities and Exchange Commission.
- ² The sales were executed in multiple transactions ranging from US\$31.6600 to US\$32.6550 per share. The price above reflects the weighted-average price per share. The Reporting Persons undertake to provide full information regarding the number of shares sold at each separate price upon request by the staff of the Securities and Exchange Commission.
- ³ The sales were executed in multiple transactions ranging from US\$32.6600 to US\$33.4100 per share. The price above reflects the weighted-average price per share. The Reporting Persons undertake to provide full information regarding the number of shares sold at each separate price upon request by the staff of the Securities and Exchange Commission.
- ⁴ Numbers are rounded to the ten-thousandths place.

5

SIGNATURES

After reasonable inquiry and to the best of each of the undersigned's knowledge and belief, each of the undersigned, severally and not jointly, certifies that the information set forth in this statement is true, complete and correct.

Dated: March 13, 2017

ALIBABA INVESTMENT LIMITED

By: /s/ Timothy A. Steinert

Name: Timothy A. Steinert

Title: Director

ALIBABA GROUP HOLDING LIMITED

By: /s/ Timothy A. Steinert

Name: Timothy A. Steinert

Title: General Counsel and Secretary

6

SCHEDULE A-1

Directors and Executive Officers of Alibaba Investment Limited

The following table sets forth the names and present principal occupation of each director of Alibaba Investment Limited, a company organized under the laws of the British Virgin Islands ("<u>AIL</u>"). The business address for each person listed below is c/o Alibaba Group Services Limited, 26/F, Tower One, Times Square, 1 Matheson Street, Causeway Bay, Hong Kong. AIL does not have any executive officers. As used below, the term "AGHL" refers to Alibaba Group Holding Limited, an exempted company incorporated under the laws of the Cayman Islands.

Name/Citizenship	Present Principal Occupation
Timothy Alexander STEINERT, United States	General Counsel and Secretary of AGHL
YIP Pak Tung, Jason, Hong Kong	Senior Director of Finance of AGHL
WU Wei (aka Maggie), People's Republic of China	Chief Financial Officer of AGHL

^{*}Previously filed on April 7, 2016.

Directors and Executive Officers of Alibaba Group Holding Limited

The following table sets forth the names, business addresses and present principal occupation of each director and executive officer of Alibaba Group Holding Limited, an exempted company incorporated under the laws of the Cayman Islands ("AGHL"). Unless otherwise noted, the business address for each director listed below is c/o Alibaba Group Services Limited, 26/F, Tower One, Times Square, 1 Matheson Street, Causeway Bay, Hong Kong. Unless otherwise noted, the business address for each executive officer listed below is 969 West Wen Yi Road, Yu Hang District, Hangzhou 310013, People's Republic of China.

Republic of China.	
Name/Citizenship Jack Yun MA, People's Republic of China 969 West Wen Yi Road, Yu Hang District, Hangzhou 310013 People's Republic of China	Present Principal Occupation Executive Chairman of AGHL
Joseph C. TSAI, Canada	Executive Vice Chairman of AGHL
Daniel Yong ZHANG, People's Republic of China 969 West Wen Yi Road, Yu Hang District, Hangzhou 310013 People's Republic of China	Director and Chief Executive Officer of AGHL
J. Michael EVANS, Canada	Director and President of AGHL
Eric Xiandong JING, People's Republic of China c/o Zhejiang Ant Small and Micro Financial Services Group Co.,Ltd. Block B, Dragon Times Plaza, 18 Wantang Road Xihu District, Hangzhou 310099 People's Republic of China	Director of AGHL; President of Zhejiang Ant Small and Micro Financial Services Group Co.,Ltd.
Masayoshi SON, Japan c/o SOFTBANK CORP. 1-9-1 Higashi-shimbashi Minato-ku, Tokyo, 105-7303 Japan	Director of AGHL; Chairman and Chief Executive Officer of SoftBank Group Corp.
Chee Hwa TUNG, Hong Kong	Independent Director of AGHL; Vice Chairman of the Twelfth National Committee of the Chinese People's Political Consultative Conference of the PRC
Walter Teh Ming KWAUK, Canada	Independent Director of AGHL; Senior Consultant of Motorola Solutions (China) Co.,Ltd.
Jerry YANG, United States	Independent Director of AGHL; Founding Partner of AME Cloud Ventures
Börje E. EKHOLM, United States and Switzerland	Independent Director of AGHL; Head of Patricia Industries Division of Investor AB
Wan Ling Martello, United States	Independent Director of AGHL; Executive Vice President of Nestlé S.A.
WU Maggie Wei, People's Republic of China c/o Alibaba Group Services Limited, 26/F, Tower One, Times Square, 1 Matheson Street, Causeway Bay, Hong Kong	Chief Financial Officer of AGHL
Judy TONG, People's Republic of China	Chief People Officer of AGHL
Jeff Jianfeng ZHANG, People's Republic of China	Chief Technology Officer of AGHL
Zhenfei LIU, People's Republic of China	Chief Risk Officer of AGHL
Trudy Shan DAI, People's Republic of China	President of Wholesale Marketplaces Division of AGHL
Timothy Alexander STEINERT, United States c/o Alibaba Group Services Limited, 26/F, Tower One, Times Square, 1 Matheson Street, Causeway Bay, Hong Kong	General Counsel and Secretary of AGHL
Jianhang JIN, People's Republic of China	President of AGHL
Chris Pen-hung TUNG, Republic of China	Chief Marketing Officer of AGHL
Yongfu YU, People's Republic of China	Chairman and Chief Executive Officer, Alibaba Digital Media & Entertainment Group of AGHL
Simon Xiaoming HU, People's Republic of China	President of Alibaba Cloud Computing Division of AGHL

Sophie Minzhi WU, People's Republic of China	Chief Customer Officer of AGHL
Jessie Junfang ZHENG, People's Republic of China	Chief Platform Governance Officer and Deputy Chief Financial Officer of AGHL