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Factors affecting consumers' acceptance of e-commerce consumer credit service

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1. Introduction

In the past three decades, exportation serves as the main driving force that stimulates the fast development of Chinese economy (Ding, 2015). However, the world economy grows slower especially after the subprime mortgage crisis. This compels Chinese government to make a transition from exportation-oriented economy to one that also relies on enlargement of internal demands. *Consumer credit service*, a type of financial service that allows an individual to purchase goods or services in the absence of immediate payment, becomes an important financial tool that can be used to enlarge internal demands and thereafter contribute to China's future economic growth (Ding, 2015). The prosperity of consumer credit is also good for consumers and corporates. Consumer credit allows users to purchase products using income in the future, and thus consumers do not need to wait until they have saved enough money. This not only improves consumers' living quality but also helps overcome the negative effect of overproduction and thereafter increases corporate profits (Watkins, 2000). Thus, the popularity of consumer credit is a win–win situation for consumers, corporates, and the society.

Benefiting from the prosperous of China economy and expanding internal demands, e-commerce in China has experienced a rapid development in the past several years. However, as the slower growth of Chinese economy, e-commerce faces a bottleneck to make a further development. For example, Alibaba declared that it will no longer release gross merchandise volume after 2016. Many e-commerce companies initiated their own consumer credit services in hope of exploring the full potential of consumer consumption and promoting the sales of goods in e-commerce environment. These consumer credit services launched by e-commerce companies are named *e-commerce consumer credit services* hereafter. E-commerce consumer credit services are still in their early stage, and their market share and consumer acceptance are still low. It is also challenging for e-commerce companies to prosper their credit services since it takes financial institutions in China several years to break the strong saving habit of Chinese people and help consumers develop the habit of using credit cards to make purchase (Ding, 2015). Nowadays, credit card has become the major approach that consumers use their credit limits. E-commerce consumer credit service serves as a substitution of credit card. It is hard to attract consumers to use alternative products such as e-commerce consumer credit services after they form the habit of using credit cards to make purchase. Moreover, vehicle and house credit services consist of a major part of consumer credit in China (iResearch, 2017). These areas are not prosperous or appropriate in the e-commerce context. Thus, there is a need to explore how to help service providers popularize their e-commerce consumer credit services.

Ant Check Later is a type of e-commerce consumer credit service launched by Alibaba, the largest e-commerce company in China. After opening an Ant Check Later account, an individual can obtain a credit limit from approximate $73–$7266. Then, he or she can make purchases on e-commerce platforms using credit limit and pay bills later. This study uses the Ant Check Later as the focal artifact for two reasons: first, Ant Check Later is the most popular e-commerce consumer credit service in China, and it can be used on both Alibaba's e-commerce platforms such as TMALL.com and Taobao.com and many other famous Chinese e-commerce platforms such as Amazon.cn and Dianping.com. However, only 9.52 percent of purchases in Alibaba e-commerce platforms are paid using the "Ant Check Later" (iResearch, 2017); and second, Alibaba company has launched its own individual credit rating system, which is an important factor that stimulates the development of consumer credit services. Thus, it is promising to use Ant Check Later as the focal service and explore how to attract users and encourage them to use the service.

Past literature demonstrates that systems can be categorized into utilitarian and hedonic systems. However, utilitarian and hedonic systems are not at opposite ends of one spectrum, and there are semi-hedonic systems that can be used for both utilitarian and hedonic purposes (Wu & Lu, 2013). Most recent systems offer both experiential enjoyment and practical functionality to consumers and can be treated as semi-hedonic systems (Gu, Fan, Suh, & Lee, 2010; Wu & Lu, 2013). E-commerce consumer credit service is a type of semi-hedonic service because it not only satisfies consumers' need of purchase, but also but also offers them experiential enjoyment (Turel, Serenko, & Giles, 2011). First, e-commerce consumer credit service is closely embedded in the

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process of online shopping and is under the umbrella of service, one important characteristic of which is hedonic value (Berry, Seiders, & Grewal, 2002). For example, e-commerce consumer credit service provides a seamless connection between online shopping and payment using credits. This helps improve the flow of the whole purchase process and thereafter embodies the hedonic value of the service. Second, e-commerce consumer credit services allow users to purchase items using income in the future. This allows consumers to escape from the real world that they need to wait until they save enough money and helps meet their needs, improving the satisfaction and happiness of consumers. This reflects the hedonic purpose of the e-commerce consumer credit services (Kim, Li, & Kim, 2015). Third, past literature also supports the idea that e-commerce consumer credit services pertain to the scope of hedonic or semi-hedonic systems. For example, Gu et al. (2010) posits that transaction, the function of e-commerce consumer credit services, is an important aim of hedonic systems. Alalwan, Dwivedi, and Williams (2016) also highlights the hedonic value of telebanking, a system like e-commerce consumer credit service.

Recently, researchers have recognized the importance of hedonic components (e.g. perceived enjoyment) in affecting individuals' use of IT systems or services, especially hedonic or semihedonic-oriented services (Dabholkar, 1996; Dellaert & Dabholkar, 2009; Junglas, Goel, Abraham, & Lves, 2013; Lee & Park, 2014; Li & Mao, 2015; Mandel & Nowlis, 2008; Heijden, 2004; Venkatesh, Thong, & Xu, 2012; Yim, Cicchirillo, & Drumwright, 2012; Zhao, 2014). This hedonic component in form of *perceived enjoyment* has been defined as "the extreme mind stimulation that elicits personal interest and involvement in activities (Workman & Studak, 2007)."

Perceived enjoyment is an important variable that can determine the promotion effectiveness from an effects perspective (Nabi & Krcmar, 2004; Yim et al., 2012). Individuals who perceive higher enjoyment from the promotion activity usually act more spontaneously and less deliberately (Benlian, 2015; Koufaris, 2002). In the case of e-commerce consumer credit services, the enjoyment or pleasure obtained from those promotion activities serves as a type of intrinsic psychological reward, improving their attitude toward the services and making them be more involved in using the service (Kima, Leea, & Bonnb, 2017; Wu, Li, & Chiu, 2014). Thus, online service providers rack their brains trying to initiate attractive promotion activities that make consumers fell enjoyed and thereafter encourage them to use or continue using the service. However, it is difficult to design attractive promotion activities, leading to a situation that service providers will imitate each other's success promotion activities and finally leads to the homogenization of promotion activity among e-commerce consumer credit service providers. This is attributed, at least partially, to the lack of systematic exploration of categories of attractive promotion activities that will encourage consumers' acceptance of the focal service. This knowledge determines the effectiveness of marketing and help facilitate consumers' use of the focal service. Thus, it is of both practical and academic importance to explore the categorization of attractive promotion activities.

This study tries to bridge the gap mentioned above by exploring categories of attractive promotion activities initiated by e-commerce consumer credit service providers and testing their impact on consumers' acceptance of the service. Our research questions are: first, what categories of attractive promotion activities can be proposed, and second, what is the impact of these categories of attractive promotion activities on consumers' behavior intention towards e-commerce consumer credit services. Taking Ant Check Later as the focal service, we first summarize activities that Alibaba initiated to stimulate the use of Ant Check Later and then explore whether these activities can be categorized into different factors and whether these factors promote the use of Ant Check Later. The rest of the paper is organized as follows. First, the mechanisms through which attractive promotion activities affect consumers' acceptance of IT artifact are discussed, and attractive promotion activities of Ant Check Later are summarized. Then, hypotheses are developed, and methodology part is explained. Finally, the results and both academic and practical implications of the findings are discussed.

2. Literature review

2.1. Attractive promotion activity and consumer acceptance

This study focuses on the hedonic part of e-commerce consumer credit services, especially enjoyment obtained from promotion activity, for several reasons. First, there are many alternative services such as credit card and loan which are more mature than e-commerce consumer credit services. Also, there are several e-commerce consumer credit services launched by different service providers. All those services have the same basic function of offering consumers credit for consumers to purchase now and pay bills later. It is hard to propose new functions but relatively easy to think of how to improve the hedonic part of the service. Second, the target consumers of e-commerce consumer credit services prefer a more experiential view of consumption. According to the report of iResearch (2016, 2017), young users aged between 18 and 37 serve as the main part of e-commerce consumer credit service users. Younger people are more hedonically oriented consumers who concentrate on the hedonic function of transaction services (Maenpaa, Kanto, Kuusela, & Paul, 2006). Thus, it is wise for the service providers to consider how to improve consumers' enjoyment obtained from their promotion activities. Third, the importance of hedonic value increases as the level of perceived risk (Chiu, Wang, Fang, & Huang, 2014). As a type of financial service, e-commerce consumer credit service is susceptible to risks such as security or privacy concerns associated with vulnerable technology infrastructure (Li & Yeh, 2010). This also demonstrates the importance of hedonic value in the acceptance of e-commerce consumer credit services.

Perceived enjoyment is the most frequently mentioned element of hedonic part of Information Technology (IT) artifact, which serves as the second strongest predictor of behavioral intention in the second generation of the Unified Theory of Acceptance and Use of Technology (UTAUT2) (Slade, Williams, Dwivedi, & Piercy, 2015; Wu & Lu, 2013). Past literature has demonstrated the impact of enjoyment on behavioral intention in different contexts such as mobile payments (Slade et al., 2015), mobile commerce (Li & Yeh, 2010), movie website (Heijden, 2004), and telebanking (Alalwan et al., 2016), etc. Heijden (2004) posited that developers should employ hedonic content in an IT artifact to encourage consumers' prolonged use. When it comes to e-commerce consumer credit services, service providers should also include hedonic content in maintaining current consumers and entice potential consumers.

Promotion activities are a significant source of enjoyment (Collins, Kavanagh, Cronin, & George, 2014). For example, monetary and non-monetary rewards or quota lifting might lead to a consumer to feel proud, wise, and knowledgeable, and a sense of accomplishment (Collins et al., 2014, Holbrook, Chestnut, Oliva, & Greenleaf, 1984). We summarize different mechanisms through which promotion activities affect consumers' acceptance decision from past literature. First, promotion activities help create a fun and enjoyable experience, which offers a state of "jouissance" that people try to maintain and fosters a favorable behavioral intention toward using the focal artifact (Benlian, 2015; Belk, Ger, & Askegaard, 2000; Jiang & Benbasat, 2007; Kim, 2012; Kim, Lee, & Bonn, 2017; Nah, Eschenbrenner, & DeWester, 2011; Wu et al., 2014). Second, promotion activities will increase consumers' pleasure and affect consumers' perceptions of the service such as usefulness and ease of use (Agarwal & Karahanna, 2000; Qiu & Benbasat, 2009; Heijden, 2004) and thereafter entice them to use the service. In addition, higher level of pleasure in using the focal artifact will also help decrease their anxiety, worry, or concern, which lower consumers' perceived risk toward the artifact and thereafter encourage them to accept the artifact (Koenig-Lewis, Marquet, Palmer, & Zhao, 2015).

Third, promotion activity will motivate consumers to search for information of the artifact and explore the focal artifact and thereafter enhance their learning and knowledge of the brand and entice their acceptance of the artifact (Chen & Lu, 2016; Li & Mao, 2015; Nah et al., 2011). Fourth, consumers will form a positive psychological state when they view information of promotion activities. This positive psychological state can be transferred to positive attitude toward the focal service and boost consumers to accept the service (Benlian, 2015; Schlosser & Shavitt, 1999; Zillmann, 1996).

We can see that past literature has sufficiently explored how promotion activities affect consumers' perceived enjoyment or pleasure and thereafter their acceptance decisions. However, most of them just treat promotion activity and enjoyment as independent variables, and there is a surprising lack of research that scrutinizes what categories of promotion activities organizations can design to attract consumers' attention and boost their behavioral intention. The positive connection between promotion activity and enjoyment or acceptance does not have practical meanings if we do not know what types of promotion activities are attractive to users. This study defines *attractive promotion activity* as initiatives launched by e-commerce consumer credit service providers that can help improve consumers' enjoyment or pleasure and encourage them to use the service. Then, this study focuses on categories of attractive promotion activity and explores its impact on consumers' behavioral intention.

2.2. Promotion activities of ant check later

This study first summarizes promotion activities that Alibaba has launched to encourage current users of "Ant Check Later" to continue using the service and entice non-users to use the service. To gather the promotion activities, we pry into the social interactive gateways between "Ant Check Later" and consumers to find out activities or initiatives that it has launched to attract users. Weibo, WeChat and official website of Ant Check Later are taken into consideration. The activities are summarized in Table 1.

3. Hypotheses development

In the later part, a principle component analysis was performed to categorize the activities into factors that will affect consumers' intention to use or continued use the focal service. Three factors, bonus, quota lifting, and scenario enrichment, were distinguished in the principle component analysis part, and the conceptual model was proposed as indicated in Fig. 1. *Bonus* refers to monetary (eg., discount) or non-monetary (eg., fast payment speed) rewards that can be derived from using e-commerce consumer credit service (Campbell & Diamond, 1990). *Quota lifting* refers to improve the maximum amount of credit that e-commerce consumer credit service providers offer their users (Beranek & Scherr, 1991). *Scenario enrichment* refer to improve the comprehensiveness of situations where consumers can use e-commerce consumer credit services to make payments (Limayem, Hirt, & Cheung, 2007). Quota lifting is just for current users because non-users do not use the service and thereafter do not have a credit limit and let alone quota lifting. The impact of these three factors on consumers' behavioral intention should have been discussed after the induction of the three factors. We advanced the discussion here to keep consistent with the conventional structure of academic paper.

Bonus and coupon are useful mechanisms for boosting marketing management functions such as sales promotion and thereafter are effective in improving individuals' purchase intention (Chen, Monroe, & Lou, 1998; Jayasingh & Eze, 2015). When it comes to e-commerce consumer credit services, consumers can obtain monetary or non-monetary rewards if they pay using the services. For example, users may receive discount coupons that can be used in their next payment if they pay using the service. These rewards serve as stimuli for consumers to use e-commerce consumer credit services. Thus, we anticipate that:

Hypothesis 1a. Bonus has a positive relationship with users' intention to continue using e-commerce consumer credit services.

Hypothesis 1b. Bonus has a positive relationship with non-users' intention to use e-commerce consumer credit services.

Consumers do not make purchase decisions based on present income level but on expected income level (Friedman, 1957). Consumers will adjust their consumption based on their expectation of future income. If financial institutions improve consumers' credit limits, consumers will expect a higher level of future income and are likely to spend more in their purchase. Then, they are more likely to make purchases using credit services if their credit limits are improved. Past literature also supports the positive relationship between credit limit and credit consumption. For example, Gross and Souleles (2000) finds that an increase in credit limits generates an immediate and significant rise in credit consumption. Soman and Cheema (2002) examines the relationship between credit quota and consumer decisions and finds that upgrading credit limits of a credit card will improve consumers' expectation of their future income, which reflects their capability to pay bill in the future and thereafter increase consumers' credit purchases.

Table 1
Promotion activities of Ant Check Later.

Variables	Description
Lucky draw	Users can participate in lucky draw if they pay using Ant Check Later, and they can get small gifts such as paying only one penny to watch a movie.
Free of charge	Users of Ant Check Later can win the chance to shop on TMall.com for free in the next year.
Discount coupon	Users can apply a discount coupon to spend less when they pay using Ant Check Later.
High payment success rate	Pay using Ant Check Later improves the payment success rate. For example, during the payment peak period in the 11.11-shopping day, pay using Ant Check Later has a success rate of 99.99%.
Fast payment speed	Pay using Ant Check Later fastens the payment process. For example, pay using Ant Check Later is the fastest payment approach in the 11.11-shopping day.
Interest-free consumption loan	A type of promotion activity that allow users to pay using Ant Check Later without paying interest.
Queen's quota activity	Female users can ask male friends to help them improve credit limits without affecting the credit limits of their male friends.
Lift quota by showing good appearance	The Ant Check Later application will scan the faces of their users and then offer additional credits based on how beautiful or hansom the users are.
Lift quota by adding contacts with good credit score	An activity that users can increase their quotas by adding friends whose Ant Check Later credit scores are high.
Double eleven privileged	Ant Check Later temporally lifts the quotas of all their users in the 11.11-shopping day.
Cooperation with Hospitals	Ant Check Later cooperates with hospitals, in which patients can get treated first and pay bills online later.
Cooperation with Fliggy[†]	Ant Check Later cooperates with Fliggy, and then Ant Check Later users can travel first and pay bills online later.
Support oversea shopping	Ant Check Later can be used in about 80 thousand oversea stores of 20 countries.
Cooperation with physical stores	Ant Check Later cooperates with physical stores, in which users can purchase items first and pay bills online later.

Note: [†] fliggy is the online travel agency platform of Alibaba.

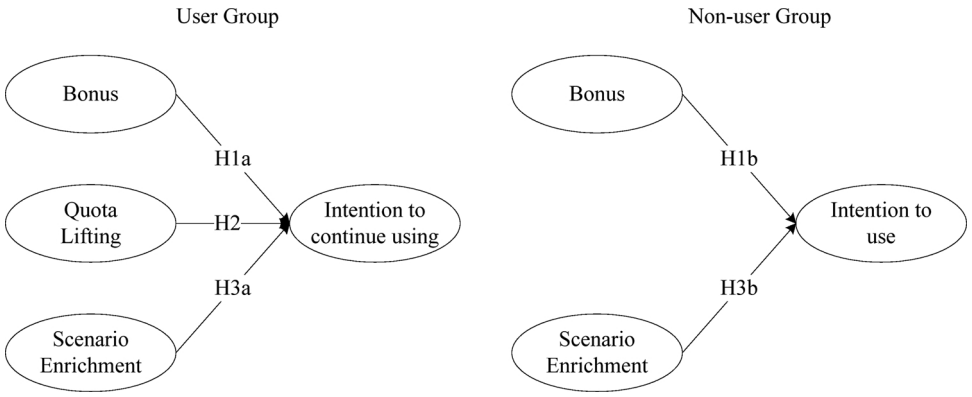

Fig. 1. Conceptual Model for Two Groups.

Table 2
Demographic Information.

	Category	Users	Non-Users	Total
Age	< 18	1	6	7
	18–22	144	120	264
	23–35	18	22	40
	36–50	16	28	44
	> 50	5	6	11
Gender	Male	92	107	199
	Female	92	75	167
Student or not	Yes	142	130	272
	No	42	52	94
Income (monthly)	< 2000	115	117	232
	2000–5000	49	49	98
	5000–10000	11	7	18
	10000–20000	5	6	11
	> 20000	4	3	7

Thus, we anticipate that:

Hypothesis 2. Quota lifting has a positive relationship with users' intention to continue using e-commerce consumer credit services.

The more scenarios consumers can use the credit services to make payments, the more frequently they are exposed to the credit services. This exposure to the credit services will increase consumers' familiarity with the services and increase their trust in the services (Moorthy & Hawkins, 2005), facilitating consumers to use the services. Moreover, as the increasing of scenario that consumers can use the service, the usage comprehensiveness is improved, which has a positive impact on consumers' automatic use of the service in the future (Limayem et al., 2007). In addition, scenario enrichment can be perceived as context-aware marketing. For example, advertising information is usually displayed in scenarios where the service can be used. This information serves as context-aware marketing advertisement, which is effective in attracting consumers to use a certain product or service (Deighton & Kornfeld, 2009). Thus, we anticipate that rich scenario will entice consumers to use the credit services.

Hypothesis 3a. Scenario enrichment activities has a positive relationship with users' intention to continue using e-commerce consumer credit services.

Hypothesis 3b. Scenario enrichment has positive relationship with non-users' intention to use e-commerce consumer credit services.

3.1. Control variables

Young consumers are more likely to accept new technology and service. Also, female and male consumers have different purchase habits in the e-commerce context and thus different needs of e-commerce consumer credit service. In addition, students have no salary or low internship salaries, which may strengthen their intention to use e-commerce consumer credit services. Thus, we include age, gender, student or not, and income as control variables.

4. Method

4.1. Data collection

Data was collected via an online survey distributed using the Sojump platform, the largest online survey platform in China, in December 2016. The snowball sampling, a way of gathering information along through personal relationship network, was deployed to collect the data (Handcock & Gile, 2011). The consumer credit service is not as mature as credit card and mobile payments in contemporary Chinese society, so little portion of consumers use the service to pay bills at this moment. One advantage of snowball sampling is that it reveals the hidden users. By survey passing through connected participants, data can be retrieved from a small group to a larger one that is related to our theme. Finally, 373 questionnaires were collected. Seven questionnaires were excluded because of a high rate of same answers for all items, making the final sample size 366 with 184 users and 182 non-users. Table 2 summarizes the demographic information of the respondents.

According to the report of iResearch (2016, 2017), the proportion of young users of "Ant Check Later" increases fast, and the generation after 90 s (those who aged 18–27) and the generation after 80 s (those who aged 28–37) are the major sources of consumption in e-commerce and the main part of credit service users. Our respondents centered between 18 and 35, and thus are proper respondents for this study.

4.2. Measures

One item was used to measure the attraction of each activity as listed in Table 1. For example, "the lucky draw activity is attractive." This study covers both non-users and current users of e-commerce consumer credit service and explores factors affecting their intention to use (or continue using) the service. Thus, the dependent variable is intention to use for the non-user group and intention to continue using for the user group. Three items adapted from Gu, Lee, and Suh (2009) were used to measure non-users' intention to use the e-commerce consumer credit service, and three items adapted from Venkatesh et al. (2012) were used to measure current users' intention to continue using the service. All items are reflective items measured with seven-point Likert scale from 1 strongly disagree to 7 strongly agree.

5. Empirical model and analysis

We performed Kaiser-Meyer-Olkin (KMO) test and Bartlett's Test of

Table 3
Principal Component Analysis.

Promotion Activities	Factors for Users			Factors for Non-Users	
	1	2	3	4	5
Lucky draw	0.673	0.047	0.157	0.861	−0.055
Free of charge	**0.686**	0.018	0.104	**0.629**	0.417
Discount coupon	**0.716**	0.210	0.074	**0.594**	0.488
Interest-free consumption loan[a]	0.493	0.450	*0.104*	**0.686**	0.325
High payment success rate	**0.580**	0.477	0.261	**0.671**	0.461
Fast payment speed	**0.573**	0.382	0.381	**0.638**	0.527
Lift quota by showing good appearance[b]	−0.052	**0.721**	0.175	–	–
Queen's quota activity[b]	0.125	**0.770**	0.066	–	–
Double eleven privileged[b]	0.303	**0.613**	0.274	–	–
Lift quota by adding contacts with good credit score [b]	0.312	**0.663**	0.213	–	–
Cooperation with physical stores	0.396	0.233	**0.603**	0.316	**0.786**
Support oversea shopping	0.340	0.187	**0.729**	0.459	**0.581**
Cooperation with Fliggy	0.074	0.300	**0.783**	0.203	**0.842**
Cooperation with Hospitals	0.046	0.058	**0.867**	0.136	**0.772**

Note: Extraction with Principal Component Analysis; rotation with Varimax.
[a] not included in factor 1 because it does not pass the two rules.
[b] activities just for current users.

Sphericity for user and non-user groups respectively. For the user group, the value of KMO statistics is 0.895, and the *p*-value of Bartlett's Test of Sphericity test is less than 0.001. For the non-user group, the value of KMO statistics is 0.874, and the *p*-value of Bartlett's Test of Spherical test is less than 0.001. These results indicate that correlations between the variables are relatively strong and fit for factor analysis. A principal component analysis was performed to determine how groups of correlated variables can be combined into uncorrelated factors (Neter, Wasserman, & Kutner, 1990). Two rules were set based on the recommendation of Gefen and Straub (2005). First, only loadings above 0.4 are viewed significant; second, if an activity that loads above 0.4 on multiple factors, there must be a difference of at least 0.1 between its highest loading on one factor to its second highest loading on a different factor. Activities that did not pass the two rules were excluded from further analysis. We illustrate the application of the above rules with the following example. As shown in Table 3, the highest loading of "interest-free consumption loan" for the user group is 0.493 on factor 1. Its second highest loading is 0.450 on factor 2. The difference between these two loadings is lower than 0.1. Thus, it is included in none of the three factors for the user group.

Using the above rules, thirteen activities out of the fourteen activities were assigned to three factors for the user group. The three factors explain 58.9% of the information included by all the original variables. Five items loaded on Factor 1, four items loaded on Factor 2, and four other items loaded on Factor 3. For the non-user group, two factors are distinguished and explain 64.6% of the information included by all the original variables. Six items loaded on Factor 4, and four items loaded on Factor 5. Table 3 shows the loadings of each factor in boldface. We found that Factor 1 has same items with factor 4 excluding interest-free consumption loan while factor 3 has same items with factor 5. Factor 2 has items that are just for users because quota-lifting activities target at current users but not non-users.

It is shown that as to factor 1 (or factor 4), which includes lucky draw, free offer, coupon, high payment success rate, the fastest payment speed, and interest-free for installment (just for non-users but not users). These items are "***bonus***" that consumers can enjoy if they use or continue using the credit service.

As to factor 2, items include queen's quota activity, lifting quota by showing good appearance, lifting quota by adding contacts with good credit and special quota for Singles' Day. These items are about "***quota lifting***" activities that e-commerce credit service providers can offer consumers to increase their credit limits.

Factor 3 (or factor 5) includes cooperation with hospitals, cooperation with Fliggy, supporting overseas shopping, and cooperation with physical stores. These items are about "scenario enrichment" that reflects the comprehensiveness of scenarios that consumes can use the e-commerce consumer credit service.

In summary, three independent variables, bonus, quota lifting, and scenario enrichment, are distinguished for user group while two independent variables, bonus and scenario enrichment, are distinguished for non-user group.

The model for users and non-users can be described as below:

Intention (users) $= f$ *(age, sex, student, income; bonus, quota lifting, scenario enrichment)* $+ \varepsilon$

Intention (non-users) $= f$ *(age, sex, student, income; bonus, scenario enrichment)* $+ \varepsilon$

6. Results

To test our hypotheses, we first created scores for each factor by using the averages of the items for each corresponding factor. To ensure that multicollinearity does not pose a potential threat to our regression results, we first examined the variance inflation factors (VIFs) for all independent variables. We detected no severe multicollinearity issue since all VIFs were lower than 5 (Belsley, Kuh, & Welsch, 2004). We utilized the hierarchical linear regression model to test our hypotheses, and the results were summarized in Table 4.

For both the user and non-user groups, we used the two-stage regression process. In the first model, we examined the independent effects of the control variables (age, gender, income, and student or not) without including any of the bonus, quota lifting, and scenario enrichment variables. This model is named model 1 for the user group and model 3 for the non-user group. Model 1 only explains 3.2 percent of the variance of users' intention to continue using the credit service. Meanwhile, model 3 only explains 11 percent of the variance of non-users' intention to use the service.

Next, we analyzed the added effects of bonus, quota lifting, and scenario enrichment variables for the user group, which we refer to as model 2, and analyzed the added effects of bonus and scenario enrichment variables for the non-user group using model 4. The increase in R^2 for model 2 ($F = 22.98$, p-value < 0.001) and model 4 ($F = 32.11$, p-value < 0.001) are both significant. This means that the impact of added effects was significantly higher than that explained by control variables in model 1 and model 2. For user group, the coefficients of quota lifting ($b = 0.337$, $p < 0.001$) and scenario enrichment ($b = 0.344$, $p < 0.001$) are significant, supporting Hypothesis 2 and

Table 4
Hierarchical Regression Analysis for Both Groups.

	User Group		Non-User Group	
	Model 1	Model 2	Model 3	Model 4
Controls				
Age	0.051	−0.016	0.050	−0.009
Gender (1 for female)	−0.048	−0.043	0.101	0.158**
Income	−0.053	−0.084	0.062	−0.011
Student	−0.152	−0.131	−0.267*	−0.171
Independent Variables				
H1a, b: Bonus		0.125†		0.274***
H2: Quota lifting		0.337***		–
H3a, b: Scenario enrichment		0.344***		0.450***
R^2	0.032	0.478	0.110	0.524
Adjusted R^2	0.010	0.457	0.09	0.508
Sig. F Change	$p > 0.05$	$P < 0.01$	$P < 0.01$	

Note: † for $p < 0.1$,* for $p < 0.05$,** for $p < 0.01$,*** for $p < 0.001$; standardized coefficients reported.

Hypothesis 3a but not Hypothesis 1a. For non-user group, the coefficients of bonus ($b = 0.274$, $p < 0.001$) and scenario enrichment ($b = 0.450$, $p < 0.001$) are significant, supporting Hypothesis 1b and Hypothesis 3b.

7. Discussion

This study summarizes fourteen activities that Alibaba has launched to promote its e-commerce consumer credit service, Ant Check Later, and explores categories of attractive promotion activities that can encourage consumers to use or continue using the service. According to data analysis, three categories of attractive promotion activities are extracted, which are bonus, quota lifting, and scenario enrichment. Among these three factors, quota lifting and scenario enrichment encourage users to continue using e-commerce consumer credit service while bonus and scenario enrichment help entice non-users to use the credit service.

7.1. Theoretical implication

Past literature has supported the positive impact of promotion activities on perceived enjoyment. For example, Collins et al. (2014); Holbrook et al. (1984) demonstrate that promotion activities make consumers feel proud, wise, and knowledgeable, and a sense of accomplishment and thereafter improve their enjoyment. However, we still do not know what categories of promotion activity are attractive for consumers. Our work tries to bridge this gap by exploring categories of attractive promotion activities and testing their impact on consumers' behavior intention toward e-commerce consumer credit services. This study uses "Ant Check Later" as focal service and summarizes fourteen promotion activities from the real world of Ant Check Later (as indicated in Table 1). Three categories of attractive promotion activities were proposed based on the principle component analysis, which are bonus, quota lifting, and scenario enrichment. The results indicate that quota lifting and scenario enrichment activities are attractive to current users and positively affect their intention to continue using the service. Meanwhile, bonus and scenario enrichment activities are attractive to potential users and motivate them to adopt the service. This serves as a theoretical support for e-commerce consumer credit service providers when they design promotion activities in the future.

This study also contributes to adoption and post-adoption literature. Some articles posited that there exists a great difference between antecedents of adoption and post adoption, and then proposed new variables such as expectation confirmation and satisfaction to predict post adoption. However, there are still many articles that just simply use antecedents of adoption behavior to predict individuals' post adoption. Our study contributes to understanding of the difference in antecedents of adoption and post adoption in two aspects. First, our results provide evidence to support that the difference is not at the opposite ends of one spectrum, which means totally different or totally the same. Scenario enrichment affects both intention to use and intention to continue use while bonus just has a significant positive impact on non-users' intention to use the service but not for users. Second, it is interesting that bonus does not impact current users' intention to continue using the service but positively affect potential users' intention to use the service. This demonstrates that the role of bonus in attracting consumers' behavioral intention may change from motivational factor in the adoption stage to hygiene factor in the post-adoption stage. Current users may take the bonus of using the service as granted and are no longer attracted by these bonus activities. This requests future research to systematically explore how the importance of different antecedents of behavior intention changes during the diffusion process of a focal artifact.

In addition, our findings demonstrate the importance of scenario enrichment since it positively affects behavioral intention of both users and non-users and the coefficients of scenario enrichment are larger than the coefficients of other factors for both groups. Moreover, our approach of extracting factors from marketing activities of Ant Check Later in practice is also different from past literature that mainly select variables based on theory. This encourages the combination of theoretical research and managerial practice in the future.

7.2. Practical implication

This study also offers practitioners some suggestions on how to design attractive promotion activities. They should deliver bonus, quota lifting, or scenario enrichment to their audience when they design attractive promotion activities. The fourteen promotion activities of Ant Check Later we summarized also offer some detailed suggestions on how to attract consumers. For example, they can offer "free of charge" randomly to attract users. They can also improve users' quota both temporally and permanently. For example, the 11.11 day, like Cyber Monday in the U.S., is a popular online shopping day. The sales of TMALL.com, a B2B e-commerce website of Alibaba, reached $17.6 billion in the 11.11 shopping day of 2016. They can offer temporary increase in quota to attract consumers to use their credit services during a specific e-commerce purchase day.

The practitioners should keep in mind that current users and non-users cherish different factors in their acceptance decisions. Thus, the practitioners should first clarify the target audience of their promotion activities and then design proper promotion activities to maximize their impacts on consumers' acceptance of e-commerce consumer credit services. If the practitioners plan to entice potential users to use the service, they can initiate interesting promotion activities that deliver bonus to potential users. Apart from the activities summarized in our study, the practitioners can cooperate with other companies to provide discount. For example, potential users can purchase monthly passes for ofo, one of the two top sharing bike service providers in China, at the price of approximately 60 cents in US dollar. However, if the practitioners hope to maintain current users, they should better not merely rely on bonus since it does not significantly affect current users' intention to continue using the service. Credit limits matters for current users. Considering that the practitioners usually decide users' credit limit based on personal information and accurate mathematical models, they can delineate a clear path on how current users can improve their credit limits and then initiate quota lifting activities to fasten the quota lifting process. This will help improve users' flow in the use experience.

Practical managers should realize that scenario enrichment is the most important factor among bonus, quota lifting, and scenario enrichment because it affects behavioral intention of both users and non-users and its coefficients are the largest among the coefficients for the three factors. They should break the conventional approach that only allows consumers to use credit service in their own e-commerce platforms and cooperate with other e-commerce platforms to expand the comprehensiveness of scenario of their e-commerce consumer credit services. Up till now, Ant check later is mainly used in online e-commerce platforms. The offline scenario is still very limited. Service providers should strengthen the promotion in offline stores because offline purchase accounts for a large proportion of the whole transactions. They can follow the example of Alipay, the largest third-party online payment service in China. Recently, Alipay initiates a large scale promotional campaigns. Users can scan the quick response (QR) code of an offline store to get discount coupon. If consumers use Alipay to make purchase in store, the users can enjoy the discount, and meanwhile, the store will earn the same amount of money with the coupon. This motivates both merchants and consumers to use the service and is effective in enriching offline scenario of the service.

The results also indicate that female potential users are more likely to use the service compared with male potential users, and this is not true for current users. Thus, service providers should pay more attention to whether the activities are attractive to female when they design activities to entice potential users to use the service. Alibaba considers

this point when it designs quota lifting activities. For example, female users can borrow credit limits from their male friends who are also users of Ant Check Later without decreasing their friends' quota. However, we suggest that service providers should consider the preference of female users when they design bonus and scenario enrichment activities to attract female users. For example, they can initiate promotion activities related to nail salon and beauty salon.

7.3. Limitations and future directions

The results must be interpreted recognizing that our samples consist a large majority of consumers who are students and aged between 18 and 22. This may affect the generalizability of our findings. However, the demographic profile of our subjects corresponds closely to consumer credit reports, making our samples proper respondents for this study. Future research may explore how the proposed three factors affect consumers' behavioral intention. For example, credit service providers usually base consumers' quota on their prediction of consumers' future income. Thus, quota lifting may serve as a cue of increasing future income for consumers. If consumers obtain this cue, they may improve their expectation of future income and become more likely to use the service. In addition, future research can explore whether and how the importance of the three factors in affecting consumers' behavioral intention changes in different stages of the diffusion process of the e-commerce consumer credit services.

8. Conclusion

This study explores factors that are attractive for consumers and thereafter affect their use of e-commerce consumer credit services. We used "Ant Check Later" as the focal artifact and summarized fourteen activities initiated by the service provider of "Ant Check Later". A principle component analysis approach was performed to categorize those activities. The results distinguish three factors, bonus, quota lifting, and scenario enrichment, that will attract consumers and affect their behavioral intention toward using or continue using the credit service. We also found that scenario enrichment is the most important factor among the three factors, which suggests that practical managers should pay more attention to expand the usage scenario of their credit services.

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