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An Examination of the Determinants of Customer Loyalty in Online Group-buying Context in China

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Abstract: With the rapidly development of e-commerce, online shopping becomes very popular among Chinese customers. In the past few years, online group-buying has experienced big rise and fall, thus, how to retain customers and improve customer loyalty should be considered by the practitioners. This study aims to explore potential factors which contribute to customer loyalty in the online group-buying context. Based on the literature review, we proposed a research model included five factors which directly or indirectly affect customer loyalty of online group-buying. The model was empirically evaluated using survey data collected from 352 users, and the data was analyzed by the structural equation modeling technology. Six research hypotheses were proposed in the study. Four research hypotheses were positively significant supported, while two research hypotheses were rejected in this study. The result shows that both customer satisfaction and switching costs have positive effects on customer loyalty in the online group-buying context, and the effect from switching costs is stronger. Furthermore, structural assurances in the process of online group-buying have strong effect on customers' trust, while customer satisfaction is directly affected by trust. In addition, both theoretical and practical implications of this study are discussed at last.

Keywords: online group-buying, customer loyalty, trust, customer satisfaction, switching costs

1. INTRODUCTION

With the large-scale construction of the telecommunication infrastructure in China, the internet becomes more closed to Chinese people's daily life, more and more Chinese would like to shop online. This has contributed to the popularity of online group-buying, which refers to a system provided daily discounts for various services and products^[1].

In the past three years, Chinese online group-buying industry has experienced big rise and fall. Online group-buying has been widely accepted by consumers since 2010, soon the industry appealed to thousands people swarm into this blue sea. In the middle of 2011, there were once more than 5000 group-buying companies at that time. Everybody wants to defeat opponents and stands out, but the horizontal competition was so fierce that most of them had to take the low price strategy. It vastly reduced their profits as well as the vendors who provided the real products or services. What's more, these online group-buying platforms were simple and similar, consumers would like to choose the cheaper one instead of the one which he or she had used before, in other words, most of these platforms lacked of customer loyalty. Till 2012, most of the online group-buying platforms were still unprofitable, and compared to the last year over 75 percent of these platforms disappeared. This industry became relatively cold and cheerless and it is the time to consider the future development direction. The managers in this industry must consider about how to retain the customers and improve the customer loyalty. Therefore, this paper proposed a theoretical model for investigating the five factors directly or indirectly influence on consumer loyalty in online group-buying, and explored how to maintain customer loyalty in group-buying context.

The remainder of this paper is organized as follows: Section 2 discusses the related researches of this study.

The research model and hypotheses are presented in Section 3. The research method and results are described in Section 4. This is followed by a discussion of the findings in Section 5. Theoretical and practical implications of this study are discussed in Section 6. Section 7 concludes this research and suggests directions for future research.

2. REVIEW OF RELATED RESEARCHES

2.1 Group-buying

Over the past decade, group-buying is a strategic form of product acquisition that has emerged as a factor in global retailing. It is an acquisition mechanism employed by groups of consumers to obtain volume discounts on desired goods and services. In consumer markets, group-buying can be seen in three forms: (1) consumer-initiated groups formed for the purchase of specific products/ brands; (2) intermediary group-buying groups organized by individuals or companies for purposes of making a profit; and (3) company-organized group-buying activities to promote their own brands and/or products [2]. In this study we focus on the second forms, group-buying organized by internet companies. These companies invite offline vendors to sell their products or services in online group-buying platforms in a discount price, then the platforms attract more consumers and help vendors increase volume in return. It could have been a win-win strategy for consumers and vendors but the fact is not as we expect. Excessive platforms force the group-buying products price down (sometimes even lower than the cost) to survive in increasingly intensive competition, which leads to vendors have a discount of the products they provided. This begins a vicious cycle, leaving consumers an unhappy consumption experience.

Tai et al. have found perceived price fairness, the peer referent, the ability of the initiator communication had significant influence on consumers' intension to participate in group-buying, and gender is also a factor moderate the intension [3]. According to a recent study, group buying effectiveness – namely, the number of coupons sold, satisfaction improvement, and return intention of group buying customers – can be affected by the discount depth of a deal as well as the service quality and popularity of a restaurant [4]. There have been some researches in online group-buying, but few of them are studied in China, even fewer in the Chinese group-buying loyalty area.

2.2 Trust and structural assurances

Trust has been identified as a key factor in e-commerce. Dan et al. found Internet consumers' trust and perceived risk have strong impacts on their purchasing decisions. High-level trust has a strong positive effect on the purchasing intention as well as a strong negative effect on a consumer's perceived risk [5]. Luarn and Lin's study indicates trust is a determinate construct to the customer loyalty [6]. In addition, structural assurances refer to an assessment of success due to safety nets such as legal recourse, guarantees, and regulations that exist in a specific context [7]. Indeed, experimental research shows that adding a structural assurance, such as a 1-800 number, to a Web site increases trust in that Web site [8]. Besides, Gefen (2003) had found that perceptions of structural assurances built into a Web site will positively affect trust in an e-vendor in the online shopping context [9].

2.3 Customer satisfaction and service quality

Customer satisfaction has been considered a key driver of the long-term relationship between suppliers and buyers [10]. In previous research, customer satisfaction was found to affect variables that are indicators of customer loyalty or orientation toward a long-term relationship. In group-buying context, customer satisfaction composed of two parts, one is the feeling from customer to group-buying platform and the other is the feeling

from customer to product or service provider. Yang and Peterson found there were five key dimensions to satisfy online customers, service quality, correct service, different products from others, ease of use and security/privacy [11]. Eugene and Jamie's study also supports the relationship between service quality and customer satisfaction [12].

2.4 Switching costs

Switching costs can be defined as the costs involved in changing from one service provider to another [13]. Merchants sometimes inflict switching costs on their customers to inhibit them from defecting to new suppliers. In addition to objectively measurable monetary costs, switching costs may also pertain to time and psychological effort involved in facing the uncertainty of dealing with a new service provider (e.g., learning the lay-out of a new office [14]. Shun et al. found switching costs had a positive effect on customer loyalty in B2B context [15], as well as Albert found a direct influence between higher switching costs and stronger levels of loyalty to corporate customers of mobile phone firms.

3. RESEARCH MODEL AND HYPOTHESES

3.1 The research model

On the basis of the previous studies, we proposed a research model illustrated in Fig. 1. The research model shows that there are five factors which affect customer loyalty of online group-buying. Among them, customer satisfaction, trust and switching costs have directly effects on customer loyalty.

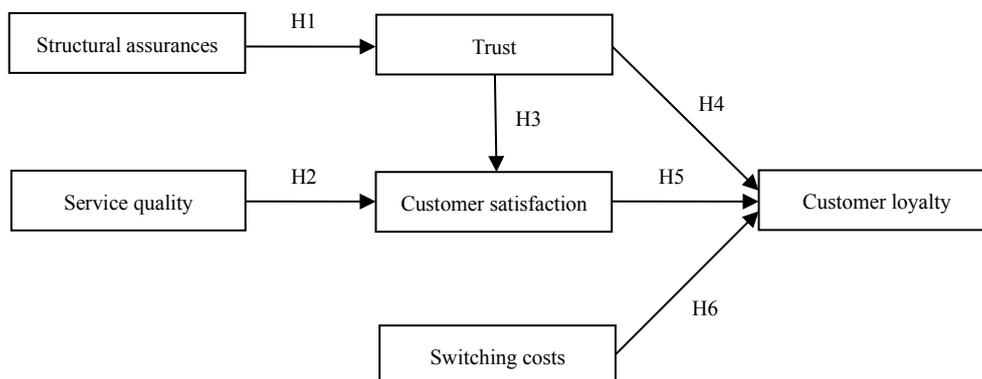


Figure 1. The research model

3.2 Research Hypotheses

Structural assurances or structural safeguards refer to an assessment of success due to safety nets such as legal recourse, guarantees, and regulations that exist in a specific context. According to McKnight et al. (2000), trust emanates from the security that one feels about the situation as a result of such guarantees, safety nets, or other structures [16]. Therefore, the following hypothesis was proposed:

H1: Structural assurances have a positive effect on customers' trust in group-buying websites.

The relationship between customer satisfaction and service quality has received a good deal of attention in the literature [17]. According to the previous studies, we proposed the following hypothesis:

H2: Service quality has a positive effect on customer satisfaction of online group-buying.

In an e-commerce environment, trusting beliefs can be described as consumers' perceptions of particular attributes of vendors, including the ability, integrity and benevolence of the vendors, when handling the consumers' transactions. Chiou et al. (2004) found that perceived trust had direct and positive impacts on the

overall satisfaction and loyalty of customers ^[18]. Thus, we proposed the following hypotheses:

H3: Trust has a positive effect on customer satisfaction of online group-buying.

H4: Trust has a positive effect on customer loyalty of online group-buying.

Satisfaction is a consumer's post-purchase evaluation and affective response to the overall product or service experience (An investigation of the attribute basis of emotion). It is considered a strong predictor for behavioral variables such as recommendations, repurchase intentions, or loyalty (Customer perceived value: a substitute). According to the previous studies, we proposed the following hypothesis:

H5: Customer satisfaction has a positive effect on customer loyalty.

Switching costs can be defined as the costs involved in changing from one service provider to another. In addition to objectively measurable monetary costs, switching costs may also pertain to time and psychological effort involved in facing the uncertainty of dealing with a new service provider. Switching costs was found affect customer loyalty directly in a Business-to-Business Service Context. Therefore, the following hypothesis was proposed:

H6: Switching costs have a positive effect on customer loyalty of online group-buying.

4. DATA ANALYSIS

Empirical data was collected by conducting a survey, in form of a written questionnaire online and offline. According to the iResearch, the customers purchasing online are relatively young, and about 56.1% concentrated in 19-30 years old in 2012. Meanwhile, students account for a relatively large proportion of the customers purchasing online. Therefore, the college students are representative as the major participants for our study. We got 352 valid questionnaires (excluding the participants who did not have the experience of online group-buying) and the response rate was 92.6%. The first part of the questionnaire was about the demographic questions. Among the participants, 57.1% of the participants were male, and 42.9% were female. More than 80% of the participants were between 18 and 24 years old, and 82.0% of them have the bachelor degree at least.

The second part of the questionnaire was set to test the hypotheses proposed above. A seven point Likert scale, with 1 being the negative end of the scale (strongly disagree) and 7 being the positive end of the scale (strongly agree), was used to examine participants' responses to all items in this part. In addition, data were analyzed using the structural equation modeling (SEM).

4.1 Measurement model

The fitness measures are shown in table 1. Except for the RMESA was equal to 0.05, all the other fitness measures were within acceptable range. In practice, RMESA is also acceptable when it is less than 0.08 ^[19]. Therefore, we consider the measurement model is acceptable, and the measures indicate that the model fit the data.

Table 1. Fit indices for the measurement model

Measures	Recommended criteria	Measurement model
Chi-square/d.f.	<3.0	1.883
GFI	>0.9	0.925
AGFI	>0.8	0.900
CFI	>0.9	0.957
RMESA	<0.05	0.050

Besides, the item reliabilities range from 0.55 to 0.85, which exceed the acceptable value of 0.5. Table 2

shows the composite reliability and average variance extracted. All the reliabilities exceed the threshold value of 0.7. Meanwhile, the average variances extracted for all constructs exceed the benchmark of 0.5. As the three values of reliability are above the recommended values, the scales for measuring these constructs are deemed to exhibit satisfactory convergence reliability.

Table 2. Construct reliabilities

Construct	Composite reliability	Average variance extracted
Structural assurances	0.886	0.661
Service quality	0.807	0.585
Trust	0.908	0.767
Customer satisfaction	0.865	0.617
Switching costs	0.858	0.668
Customer loyalty	0.908	0.832

Furthermore, the variances extracted by the constructs are more than the squared correlations among variables. The fact reveals that constructs are empirically distinct. As the convergent and discriminant validity measures are quite well, the test of the measurement model is satisfactory.

4.2 Tests of the structural model

The structural model was tested using Amos 20. The results of the structural model are shown in Fig. 2.

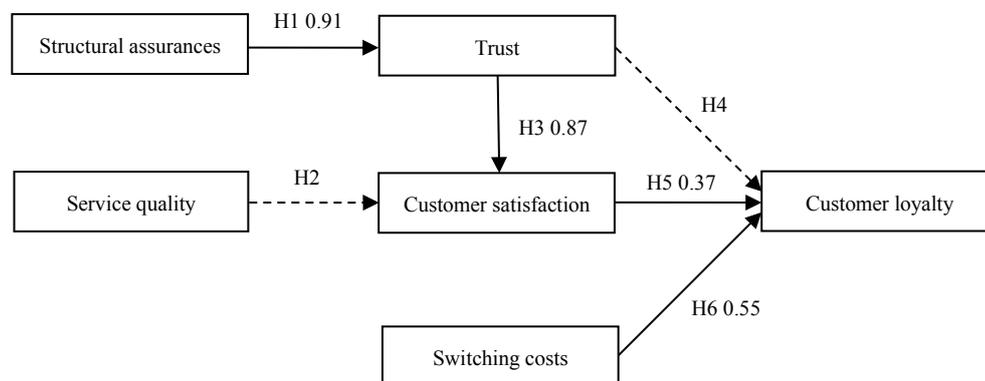


Figure 2. Results of structural modeling analysis

The standardized path coefficients between constructs are presented, while the dotted lines stand for the non-significant paths. Contrary to our hypothesis (Hypothesis 2), service quality has no significant direct effect on customer satisfaction of online group-buying. Meanwhile, trust has no significant direct effect on customer loyalty as well, so Hypothesis 4 is not supported. The path coefficient from structural assurances to trust is statistically significant, and the positive effect is relatively strong, as shown by the path coefficient of 0.91 ($P < 0.001$). Besides, trust also affects customer satisfaction strongly, and the path coefficient is 0.87 ($P < 0.001$). In addition, path coefficient from customer satisfaction and switching costs to customer loyalty are all statistically significant, and the path coefficients are 0.37 ($P < 0.05$) and 0.55 ($P < 0.001$). Therefore, Hypotheses 1, 3, 5 and 6 are supported. Furthermore, the amount of variance in customer loyalty explained by the model was 0.52. The explained variance of trust is 83%. The percentage of variance explained for customer satisfaction is 74%.

5. DISCUSSION

In our study, we find two hypotheses are not supported. Firstly, service quality does not directly affect customer satisfaction in the online group-buying context. In previous study, service quality was found may have a positive impact on customer satisfaction. But according to our analytical results, service quality did not appear to directly affect customer satisfaction. It may be explained by that the consumer groups of online group-buying are mostly young people with the relatively low consumption level, and they consume on the group-buying websites mainly because of the cheap price. They think highly of the price, and pay relatively little attention to the service quality. Besides, most group-buying websites have close service quality. The customers have not perceived significant difference between different group-buying websites. Thus, the service quality does not have significant effect on customer satisfaction. Secondly, trust does not have directly effect on customer loyalty in the online group-buying context. Previous studies had found that trust affected customer loyalty directly, but we did not verify that hypothesis in our study. Most customers have strong trust in online group-buying according to the descriptive results. However, the customers focus much on the price, if they find another website which provides the similarly goods but at a lower price, they may easily turn to the website. Therefore, trust affects the customer satisfaction directly, but it may not have significant impact on customer loyalty.

Furthermore, from the analytical results, structural assurances directly affect trust. The security of payment is one of the most important things customers care about in the online shopping context, so it is obviously that customers will trust in the group-buying websites with higher structural assurances. In addition, both customer satisfaction and switching costs have positive effects on customer loyalty. Many previous studies have verified the relationship between customer satisfaction and customer loyalty. If it is very troublesome for a customer to change the group-buying website they always purchase on, they will less likely turn to another website similar to the one the use at the moment.

6. IMPLICATIONS

6.1 Theoretical implications

From a theoretical perspective, this study examined the factors that directly affect customer loyalty of online group-buying. The previous studies pay little attention to customer loyalty in the online group-buying context. In our study, we find that the relationship between service quality and customer satisfaction along with the relationship between trust and customer loyalty are not consistent with the previous studies. Meanwhile, our results also indicate that both customer satisfaction and switching costs have positive effects on customer loyalty, and the effect from switching costs is stronger.

6.2 Managerial implications

From a managerial perspective, the findings in our study imply that there are two factors practitioners should concern about to raise customers' loyalty to their group-buying websites. On the one hand, they should make efforts to improve customer satisfaction. To raise customer satisfaction, they can try to raise customers' trust in the websites. Meanwhile, they can make efforts to improve the structural assurances of websites which have strong impact on customers' trust. On the other hand, switching costs also affect the customer loyalty directly, and the effect is stronger than customer satisfaction. Therefore, the practitioners should take measures to raise the switching costs to retain more customers. For example, they can use the membership system and they can also provide personalized services to different customers.

7. CONCLUSION

Online shopping becomes very popular among Chinese customers nowadays. In the past few years, online group-buying has experienced big rise and fall, thus, how to retain customers and improve customer loyalty should be considered by the practitioners. However, only few studies are concerned with factors affect customer loyalty in the online group-buying context. This study explored potential factors which contribute to customer loyalty in the online group-buying context. Six research hypotheses were proposed in the study. Four research hypotheses were positively significant supported, while two research hypotheses were rejected in this study. The result shows that both customer satisfaction and switching costs have positive effects on customer loyalty in the online group-buying context, and the effect from switching costs is stronger. Besides, structural assurances in the process of online group-buying have strong effect on customers' trust, while customer satisfaction is directly affected by trust.

This study also has some limitation. For example, the participants of our study are mainly college students, they can represent the customers of online group-buying to some extent, but they cannot reflect the total customers in China. Furthermore, besides the factors in our structural model, there may have other factors affecting customer loyalty, such as contact interactivity and character. Thus, future studies can investigate how customer loyalty is influenced by these factors. In addition, some mediating factors (e.g. gender and age), may provide fresh insights and offer new directions for future research.

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