Impact of Online Retailing Customer Experience on Customer Satisfaction and Customer Loyalty

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Abstract. This paper studied the impact of online retailing customer experience on customer satisfaction and loyalty. Online retailing customer experience was divided into four dimensions in the paper, namely functional experience, sensory experience, affective experience and related experience. A conceptual model was then built to reflect how online retailing customer experience influence customer satisfaction and customer loyalty. Then, structural equation model was applied to test and revise the conceptual model based on data from questionnaire survey. Finally, this paper put forward some suggestions for improving online retailing customer satisfaction and loyalty based on the conceptual model result.

Introduction

Online retailing customer perceived service quality comes from a variety of service contact and interaction in online consumption process. Related research showed that improving customer experience could improve customer perceived service quality and customer satisfaction, thereby increasing customer loyalty [5]. However, related research on online retailing environment is less and not deep enough. Based on the analysis of online retailing customer experience features, the research focuses on the impact of online retailing customer experience on customer satisfaction and customer loyalty to give some suggestions for online retailing enterprises.

Literature Review

Academia generally more accepts the definition of customer experience proposed by Pine and James H Gilmore. Customer experience is consciously provided by enterprise to help customers participate in service process and obtain an unforgettable emotional experience [1]. Schmitt puts forward a strategic experiential module from psychological point, which includes five dimensions, namely sensory experience, affective experience, thinking experience, action experience and related experience [2]. Service experience is customer awareness, feeling and evaluation of service provided by enterprises. It is not a one-dimensional concept [3]. Providing a good customer experience is very important for enterprises, because it can improve customer satisfaction and promote customer loyalty [4]. Zhang Jing uses retailing as an example and takes empirical research to study the impact of customer experience on customer loyalty through establishing an experience – emotion – satisfaction -loyalty model [5]. So far, researches related to customer experience are mainly concentrated on traditional service industries, and less considered the customer experience under online environment.

Conceptual Model and Hypotheses

Combining Schmitt's strategy experience model [2] and the characteristics of online retailing industry, we divide online retail customer experience into four dimensions, namely functional experience, sensory experience, affective experience and related experience.

We take website, convenience, commodity, security, service, and individuation as the factors that have direct impact on online retailing customer experience. We establish a conceptual model about the
impact of online retailing customer experience on customer satisfaction and customer loyalty in Figure 1.

**Figure 1. Model of Online Retailing Customer Experience Impact on Customer Satisfaction and Loyalty.**

Based on the conceptual model in Figure 1, hypotheses are put forward as follows:

H1: Website factor has a positive impact on the customer perception of functional experience.
H2: Website factor has a positive impact on the customer perception of sensory experience.
H3: Website factor has a positive impact on the customer perception of affective experience.
H4: Website factor has a positive impact on the customer perception of related experience.
H5: Convenience factor has a positive impact on customer perception of functional experience.
H6: Convenience factor has a positive impact on customer perception of sensory experience.
H7: Convenience factor has a positive impact on customer perception of affective experience.
H8: Convenience factor has a positive impact on customer perception of related experience.
H9: Commodity factor has a positive impact on customer perception of functional experience.
H10: Commodity factor has a positive impact on customer perception of sensory experience.
H11: Commodity factor has a positive impact on customer perception of affective experience.
H12: Commodity factor has a positive impact on customer perception of related experience.
H13: Security factor has a positive impact on customer perception of functional experience.
H14: Security factor has a positive impact on customer perception of sensory experience.
H15: Security factor has a positive impact on customer perception of affective experience.
H16: Security factor has a positive impact on customer perception of related experience.
H17: Service factor has a positive impact on customer perception of functional experience.
H18: Service factor has a positive impact on customer perception of sensory experience.
H19: Service factor has a positive impact on customer perception of affective experience.
H20: Service factor has a positive impact on customer perception of related experience.
H21: Individuation factor has a positive impact on customer perception of functional experience.
H22: Individuation factor has a positive impact on customer perception of sensory experience.
H23: Individuation factor has a positive impact on customer perception of affective experience.
H24: Individuation factor has a positive impact on customer perception of related experience.
H25: Functional experience has a positive impact on customer perceived value.
H26: Sensory experience has a positive impact on customer perceived value.
H27: Affective experience has a positive impact on customer perceived value.
H28: Related experience has a positive impact on customer perceived value.
H29: Functional experience has a positive impact on customer satisfaction.
H30: Sensory experience has a positive impact on customer satisfaction.
H31: Affective experience has a positive impact on customer satisfaction.
H32: Related experience has a positive impact on customer loyalty.
H33: Functional experience has a positive impact on customer loyalty.
H34: Sensory experience has a positive impact on customer loyalty.
H35: Affective experience has a positive impact on customer loyalty.
H36: Related experience has a positive impact on customer loyalty.
H37: Customer perceived value has a positive impact on customer satisfaction.
H38: Customer satisfaction has a positive impact on customer loyalty.

Data Collection and Analysis

A web-based questionnaire was used to collect the data. We totally collected 183 questionnaires. After cleansing, a total of 156 usable questionnaires were obtained. We mainly focus on Chinese integrated online retailing enterprises, such as Jingdong Mall, Dangdang, Amazon, the 1st Shops.

Data was analysed by SPSS19.0. Firstly, correlation test is conducted to all the scale items. The results show that KMO values of three parts are all greater than 0.7 and some are even close to 0.9. In addition, a significant value of chi-square statistic in Bartlett test of sphericity was 0.000, less than 0.01. The results show that variables are highly correlated and very suitable for factor analysis.

We adopt principal component factor to extract main components from each three parts of the questionnaire. For the first part, factor analysis shows that service perceived factor and individuation perceived factors can to be merged into a common factor. Therefore, maintaining site, convenience, commodity and security factors, we integrate service and individuation factors into one factor named service perceived factors, and cancel the original hypothesis H21 ~ H24. For the other two parts, no factors need to be merged.

Then, we use Cronbach's α reliability coefficient method to verify whether a set of questions measuring one concept is internal consistency. Reliability analysis results show that except Cronbach’s α coefficients of two common factors are less than 0.7 and greater than 0.6, the Cronbach's α coefficients of all other common factors are greater than 0.7, which reflects that data collected in the survey is reliable.

Comparing the Cronbach's α coefficients of origin and revised factors, Cronbach's α coefficients of service factor and individuation factor were separately 0.858 and 0.745. Cronbach's α coefficient of merged factor named service perceived factor is 0.875, which is higher than that of two origin factors. It shows that merged factor has higher scale reliability. In addition, AVE value of each factor has more than 95% probability greater than correlation coefficient of each factor, which indicates sufficient discriminant validity among those dimensions.

Structural Equation Modelling

Firstly, we research the impact of customer perceived factors on customer experience.

Hypothesis model fitness indexes of before and after revisions are compared in Table 1. RMSEA value is 0.07, in line with standards. Other index values are slightly lower than minimum standard value. Compared with original model, revised model is closer to standard value. Overall, the goodness of fit of revised model is better.

<table>
<thead>
<tr>
<th>Statistical test</th>
<th>Standard or threshold</th>
<th>Before revised</th>
<th>Revised</th>
</tr>
</thead>
<tbody>
<tr>
<td>P value</td>
<td>&lt; 0.05</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>χ²</td>
<td>—</td>
<td>988.91</td>
<td>954.21</td>
</tr>
<tr>
<td>Df</td>
<td>—</td>
<td>564</td>
<td>539</td>
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<td>Chi square degrees of freedom</td>
<td>&lt; 2</td>
<td>1.75</td>
<td>1.77</td>
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<tr>
<td>GFI value</td>
<td>&gt; 0.90</td>
<td>0.74</td>
<td>0.86</td>
</tr>
<tr>
<td>AGFI value</td>
<td>&gt; 0.90</td>
<td>0.69</td>
<td>0.83</td>
</tr>
<tr>
<td>RMSEA value</td>
<td>&lt; 0.05;</td>
<td>0.07</td>
<td>0.07</td>
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</table>
Unidirectional arrows represent causal relationships between variables. Path coefficients are marked on the top of arrows. W represents website perceived factor. The external potential variable contains 3 observation indexes. C represents convenience perceived factor, which has 5 observation indexes. P represents commodity perceived factor. It includes 5 observation indexes. Q is security perceived factor that has 3 observation indexes. S is for service perceived factor. It contains 7 observation indexes. FE, SE, AE and RE are internal latent variables that separately represent functional experience, sensory experience, affective experience and related experience, and separately have three, three, three and four measurement indexes.

Structural model results are shown in Figure 2. The ovals represent latent variables. Rectangles represent measurable variables. Path coefficients are marked on the top of arrows. W represents website perceived factor. The external potential variable contains 3 observation indexes. C represents convenience perceived factor, which has 5 observation indexes. P represents commodity perceived factor. It includes 5 observation indexes. Q is security perceived factor that has 3 observation indexes. S is for service perceived factor. It contains 7 observation indexes. FE, SE, AE and RE are internal latent variables that separately represent functional experience, sensory experience, affective experience and related experience, and separately have three, three, three and four measurement indexes.

![Figure 2. Structure Model of Customer Perceived Factor Impact on Customer Experience.](image)

For hypothesis H1 ~ H20, empirical results reject the hypothesis H1, H3, H4, H7, H8, H11, H12, H17, H18. Remaining assumptions are supported. It means that there are five factors affect customer perceived factor of customer experience, namely website, convenience, commodity, security and service.

Convenient factor (0.10), commodity factory (0.29) and security factory (0.75) all have impact on functional experience. Factors that affect customer sensory experience are website factory (0.19), convenience factory (0.14), commodity factory (0.21) and security factory (0.61). Only service factor (0.47, 0.42) and security factory (0.24,0.23) have impact on affective experience and related experience.

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<tr>
<td>P value</td>
<td>&lt; 0.05</td>
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<td>0.00</td>
</tr>
<tr>
<td>χ²</td>
<td>—</td>
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<td>301.79</td>
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<td>—</td>
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<td>151</td>
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<tr>
<td>Chi square</td>
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<td>1.99</td>
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<tr>
<td>GFI value</td>
<td>&gt; 0.90</td>
<td>0.84</td>
<td>0.86</td>
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<tr>
<td>AGFI value</td>
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<tr>
<td>RMSEA value</td>
<td>&lt; 0.05</td>
<td>0.08</td>
<td>0.08</td>
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<tr>
<td>NFI value</td>
<td>&gt; 0.90</td>
<td>0.84</td>
<td>0.86</td>
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</table>
According to survey statistics, customers’ satisfaction ranking of these five factors is “Convenience > Commodity > Security > Website > Service”. From customer point of view, they think affective experience is the most important dimension of customer experience. Second is related experience. Functional experience and sensory experience have the same effect and rank third.
After integrating the model tests of above two parts, Conceptual model is verified and modified by eliminating non-significant path and shown in Figure 4.

![Figure 4. Model of Online retailing Customer Experience Impact on Customer Satisfaction and Loyalty.](image)

**Conclusions**

The results showed that online retailing customer experience has a positive effect on customer perceived value, customer satisfaction and customer loyalty. For the four dimensions of online retailing customer experience, customers think affective experience is the most important one.

This paper not only identified the relationship between customer perception factors and dimensions of customer experience, but also explored the influence mechanism of customer experience on customer perceived value, customer satisfaction and customer loyalty. The results in the research can provide e-retailers a number of management improvement suggestions.

E-retailers should strengthen their management of online service. In particular, they should pay more attention to training after-sale service personnel and online customer service staff to improve their professionalism, reduce processing time and improve efficiency. Once service failures occur, e-retailer should take action to minimize customer complaint. Measures can be taken to maintain customer emotions and corporate image, such as shorten complaint-processing time, sincerely apologize, returns, refunds, etc.

In the paper, we just take the affective experience as a whole for discussion and validation. For further study, scholars can consider to classify affective experience into positive and negative emotions, and discuss the impact of affective experience on customer satisfaction and customer loyalty.

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**References**