FACTORS INFLUENCING THE ONLINE SHOPPING BEHAVIOR VIA SOCIAL NETWORKS OF CHINESE CUSTOMERS IN SHANGHAI, PRC

Liu Xiaoxu*
Asst.Prof.Dr. Leela Tiangsoongnern**

ABSTRACT

China is the world's largest and most dynamic e-commerce market, with 854 million online shoppers and a penetration rate of 61.2% in June, 2019 (CNNIC, 2019). Therefore, the researcher is interested in studying the online shopping behavior via social networks of Chinese customers in Shanghai, PRC, including its influencing factors. This study collected data from 102 respondents using a questionnaire. Data was analyzed by using descriptive statistics. Hypotheses were tested by using Chi-square (X²-test) and correlation analysis.

The findings revealed that customers in Shanghai from different demographic profiles (e.g. gender, age and monthly income) are likely to be differed in their online shopping behavior (e.g. average shopping time, monthly shopping frequency). It is also found that there is a significant relationship between online perceived risk, marketing mix strategy (4PS) and the online shopping behavior (buyer's shopping time and number of purchases), at significant level of 0.05. This result can be used as guidelines to improve the marketing strategies of online sellers via social network in Shanghai, and probably other provinces in future.

Keywords: Chinese Consumer in Shanghai, Online Shopping Behavior via Social Network

* A Student of MBA (International Program), College of Innovative Business & Accountancy, Dhurakij Pundit University, Bangkok, Thailand.
**A Research Supervisor, Director of Digital Language Learning Center (DLLC), DPU Academic Affairs and Director of Postgraduate English Programs.
Introduction

Nowadays, according to CNNIC's 26th China Internet Development Survey, online shopping via social networks has gradually become an important channel for consumers to choose (CNNIC, 2010). By the report from National Bureau of Statistics, the nation's online retail sales were 1,062.4324 billion yuan in 2019, an increase of 16.5% over the previous year. Among them, the online retail sales of physical goods were 853.9 billion yuan, an increase of 19.5%, accounting for 20.7% of the total retail sales of consumer goods (National Bureau of Statistics, 2020).

There is few research about the factors affecting online consumer purchase behavior under new online shopping development trend in China. For example, SUN and LIU (2014) investigated the research that affects online shopping behavior of online consumers under the new trend of e-commerce. So researcher is interested in the online shopping behavior via social networks of Chinese customers in Shanghai, PRC. This result might benefit online companies and social networks companies. It can be used as guidelines to improve their marketing strategies and service of online sellers via social network in Shanghai, and probably in other provinces in the future.

This study aims to test whether there are relationships between demographic profile, marketing mix 4P’s and perceived risk on the online shopping behavior via social networks of Chinese customers in Shanghai, PRC. Therefore, this study proposed three hypotheses as follows:

H1: Customers in Shanghai from different demographic profiles are likely to be differed in term of their online shopping behavior.

H2: There is a relationship between marketing mix strategy(4Ps) and the online shopping behavior of customers in Shanghai, PRC.

H3: There is a relationship between perceived risk and the online shopping behavior of customers in Shanghai, PRC.

Investigating constructs

This research mainly focuses on the online shopping behavior via social networks of Chinese customers in Shanghai, PRC. The proposed factors of demographics, online perceived risk and marketing mix (4ps) to examine the relationship between online shopping behavior via social networks of Chinese customers in Shanghai, PRC. The definitions of key terms in this study are described as follows:

- **Social Networks** – The popular Chinese online shopping networks include Taobao, Jingdong and Pinduoduo
- **Customer** – Chinese people in Shanghai city, in 5 distracts: Pudong, Huangpu, Changning, Jingan and Xuhui districts who purchase product via online social networks.
- **Online purchasing behavior** – refers to parts of the consumer behavior
analysis according to 6Ws and 1H: Who is the customer, what does customer buy, when does customer buy, and how does customer buy (Kotler, 2013)

- **Online perceived risk** – refers to the uncertainty and consequence following the online shopping via social networks. Uncertainty means the uncertainty of consumers' perception of product satisfaction. Consequence means possible losses after purchasing and using the product.

To future understand the relationship between demographic profile, online perceived risk, marketing mix 4P’s and online shopping behavior, the following relevant studies have been reviewed. Akhter (2002) indicated that more educated, younger, males, and wealthier people in contrast to less educated, older, females, and less wealthy are more likely to use the Internet for purchasing. Gender differences in online shopping.

Online retailers provide diverse sales promotions, such as free gifts, discounts, or free shipping to attract shoppers to their websites. Promotion serves as an immediate economic incentive to purchase a product (Honea and Dahl, 2005; Oliver and Shor, 2003). Online shoppers tend to believe that product prices in online stores are often lower than in physical retail stores (Grewal et al., 2003). The established dimensions of risk – financial, social, time, performance, psychological and physical, according to Bearden and Mason (1978) – includes online and offline purchasing environments. It is easy to see how customers might consider that buying some products is risky.

**Methodology**

This research is a survey research design that uses a self-administrative questionnaire to collect data from respondents. The research adopted convenience sampling method by giving out questionnaire to customers who had online shopping experience in 5 districts of Shanghai (Pudong, Huangpu, Changning, Jingan and Xuhui). Convenience sampling was used for this study because the respondents are selected to be in the right place at the right time and least time consuming compared to other sampling techniques (Malhotra, 2007). The sample size is calculated based on 95% confidence level and 5% sampling error.

Chi-Square was used to delimit the relationships between the demographic profile and online shopping behavior of Chinese customers in Shanghai, PRC. The correlation was used to find the relationships between marketing mix strategy and online shopping behavior of Chinese customers in Shanghai, PRC. The correlation was used to find the relationships between online perceived and risk online shopping behavior of Chinese customers in Shanghai, PRC at the confidence level of 95% or α< 0.05.
Results and Discussion

This study collected data from Chinese customers who are interested to shop online in Pudong, Huangpu, Changning, Jingan and Xuhui Districts in Shanghai. Questionnaires were distributed to 140 respondents and 124 sets were received. Therefore, the response rate of 88.6% were achieved.

In summary, the majority of the respondents were female (71.6%) and male is 28.4% of the total. The largest groups are aged between 26-35 years old and most of them are single, holding a bachelor’s degree. In addition, they mostly worked in private companies with the average monthly income of 3601-6000 yuan. The result was in line with the study of Afizah Hashim, Erlane K Ghani and Jamaliah Said (2009). The study showed the differences in gender, age, and income affects customers' online shopping behavior.

The study has found a significant relationship between marketing mix strategy 4PS (e.g. product, price, place, promotion) of online shopping customers, and average shopping hours, shopping frequency per month. The result was in line with the study of Kevin Wongleeede (2019). The study found that the marketing mix 4PS (e.g. variety of packages, free shipping store, place, promotion discount) determines the customer's shopping frequency and average shopping time. And this was related to Chen (2009) whose study on information-oriented online shopping behavior in electronic commerce environment. The study revealed that the marketing mix had effect on online shopping behavior.

The study has found a significant relationship between online perceived risk (e.g. uncertainly, consequence) of online shopping customer and average shopping hours, shopping frequency per month. This study found that the most important factors of the online perceived risk-focused by the customers are online shopping safety, false product description, insurance services. Such the result implied that online perceived risk factors effecting the customers decision when online shopping via social network. This finding was in line with a study of Tong (2013) whose study on investigation and analysis of perceived risk of college students' online shopping. The study revealed that perceived risk had a significant impact on college students’ online shopping behavior.

This leads to development of conceptual framework of the study and the following hypothesis:

H1: Customers in Shanghai from different demographic profiles are likely to be differed in term of their online shopping behavior.

H2: There is a relationship between marketing mix strategy(4Ps) and the online shopping behavior of customers in Shanghai, PRC.

H3: There is a relationship between perceived risk and the online shopping behavior of customers in Shanghai, PRC.

Note:* Partial support at significant level of 0.05.
Table 1: Demographic Profile on online shopping behavior

<table>
<thead>
<tr>
<th>Demographic Profile</th>
<th>Online shopping behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average shopping hours</td>
</tr>
<tr>
<td>Gender</td>
<td>0.000</td>
</tr>
<tr>
<td>Age</td>
<td>0.034</td>
</tr>
<tr>
<td>Status</td>
<td>-</td>
</tr>
<tr>
<td>Education level</td>
<td>-</td>
</tr>
<tr>
<td>Occupation</td>
<td>-</td>
</tr>
<tr>
<td>Income/month</td>
<td>0.034</td>
</tr>
</tbody>
</table>

*Level of significant $\alpha = 0.05$

Table 1 showed that gender, age, income per month was found to have effects on frequency of online shopping per month, average shopping hours ($P < 0.05$). Status, educational level and occupation was found to have no effects on frequency of online shopping per month and average shopping hours.

Table 2: Marketing mix 4ps on online shopping behavior

<table>
<thead>
<tr>
<th>Service Marketing mix 4Ps</th>
<th>Average shopping hours</th>
<th>$R$ value</th>
<th>Shopping Frequency/month</th>
<th>$R$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product strategy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of product</td>
<td>-</td>
<td>0.046</td>
<td>-</td>
<td>0.032</td>
</tr>
<tr>
<td>Variety of packages</td>
<td>0.006</td>
<td>0.268</td>
<td>-</td>
<td>0.152</td>
</tr>
<tr>
<td>Brand reputation</td>
<td>-</td>
<td>0.104</td>
<td>0.044</td>
<td>0.20</td>
</tr>
<tr>
<td>Wide variety of products</td>
<td>-</td>
<td>-0.127</td>
<td>-</td>
<td>-0.045</td>
</tr>
<tr>
<td>Many brand choices</td>
<td>-</td>
<td>-0.066</td>
<td>-</td>
<td>-0.005</td>
</tr>
<tr>
<td><strong>Price strategy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cheapest price</td>
<td>0.700</td>
<td>-0.039</td>
<td>0.647</td>
<td>0.046</td>
</tr>
<tr>
<td>Free shipping store</td>
<td>0.028</td>
<td>0.217</td>
<td>0.002</td>
<td>0.302</td>
</tr>
<tr>
<td>Higher price to buy</td>
<td>-</td>
<td>0.080</td>
<td>-</td>
<td>0.136</td>
</tr>
<tr>
<td><strong>Place strategy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>From shipping city</td>
<td>-</td>
<td>-0.037</td>
<td>-</td>
<td>0.110</td>
</tr>
<tr>
<td>Oversea delivery service</td>
<td>-</td>
<td>0.014</td>
<td>-</td>
<td>0.090</td>
</tr>
<tr>
<td>Own mobile applications</td>
<td>0.024</td>
<td>-0.224</td>
<td>-</td>
<td>-0.026</td>
</tr>
<tr>
<td>Social medial platform has ability to order</td>
<td>0.024</td>
<td>-0.224</td>
<td>-</td>
<td>-0.026</td>
</tr>
</tbody>
</table>

**Promotion strategy**

<table>
<thead>
<tr>
<th>Service Marketing mix 4Ps</th>
<th>Average shopping hours</th>
<th>$R$ value</th>
<th>Shopping Frequency/month</th>
<th>$R$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales promotion</td>
<td>-</td>
<td>-0.011</td>
<td>0.025</td>
<td>0.222</td>
</tr>
<tr>
<td>E-coupon</td>
<td>-</td>
<td>-0.041</td>
<td>0.018</td>
<td>0.234</td>
</tr>
<tr>
<td>Interesting advertisements</td>
<td>0.037</td>
<td>0.207</td>
<td>-</td>
<td>0.084</td>
</tr>
<tr>
<td>Internet celebrity</td>
<td>-</td>
<td>0.099</td>
<td>-</td>
<td>0.093</td>
</tr>
</tbody>
</table>
Table 2, showed the significant positive relationships between the variety of packages (R = 0.268, P < 0.05) and average shopping hours. Showed the significant positive relationships between the brand reputation (R = 0.200, P < 0.05) and shopping frequency per month. Showed the significant positive relationships between the free shipping store (R = 0.217, P < 0.05) and average shopping hours, and the significant positive relationships between the free shipping store (R = 0.302, P < 0.05) and shopping frequency per month. Showed the significant negative relationships between the own mobile applications (R = -0.224, P < 0.05) and average shopping hours. Showed the significant positive relationships between sales promotion (R = 0.222, P < 0.05) and shopping frequency per month. Showed the significant positive relationships between e-coupon (R = 0.234, P < 0.05) and shopping frequency per month. Showed the significant positive relationships between interesting advertisements (R = 0.207, P < 0.05) and average shopping hours. Showed the significant positive relationships between flash sales (R = 0.204, P < 0.05) and shopping frequency per month. Others factors showed there are no significant relationships.

Table 3: Marketing mix 4ps on online shopping behavior

<table>
<thead>
<tr>
<th>Perceived risk</th>
<th>Average shopping hours</th>
<th>R value</th>
<th>Shopping Frequency/month</th>
<th>R value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Uncertainty</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shopping safety</td>
<td>-</td>
<td>0.061</td>
<td>0.048</td>
<td>0.196</td>
</tr>
<tr>
<td>Delivery time</td>
<td>0.041</td>
<td>-0.202</td>
<td>0.045</td>
<td>-0.199</td>
</tr>
<tr>
<td>Damage or loss</td>
<td>-</td>
<td>-0.029</td>
<td>-</td>
<td>0.039</td>
</tr>
<tr>
<td>False product description</td>
<td>-</td>
<td>0.044</td>
<td>0.032</td>
<td>-0.212</td>
</tr>
<tr>
<td>Different product quality</td>
<td>-</td>
<td>-0.029</td>
<td>-</td>
<td>-0.142</td>
</tr>
<tr>
<td>Good reputation</td>
<td>-</td>
<td>-0.057</td>
<td>-</td>
<td>0.009</td>
</tr>
<tr>
<td>Assurance</td>
<td>0.046</td>
<td>0.198</td>
<td>0.021</td>
<td>0.229</td>
</tr>
<tr>
<td><strong>Consequence</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Be laughed</td>
<td>0.048</td>
<td>-0.196</td>
<td>0.030</td>
<td>-0.215</td>
</tr>
<tr>
<td>Losing money</td>
<td>0.045</td>
<td>-0.199</td>
<td>-</td>
<td>0.038</td>
</tr>
<tr>
<td>Official flagship store</td>
<td>-</td>
<td>-0.134</td>
<td>-</td>
<td>0.055</td>
</tr>
</tbody>
</table>

*Level of significant α = 0.05
Table 3, showed the significant positive relationships between online shopping safety ($R = 0.196, P < 0.05$) and shopping frequency per month. And showed the significant negative relationships between delivery time ($R = -0.202, P < 0.05$) and average shopping hours and the significant negative relationships between delivery time ($R = -0.199, P < 0.05$) and shopping frequency per month. Showed the significant negative relationships between false product description ($R = -0.212, P < 0.05$) and shopping frequency per month. Showed the significant positive relationships between assurance ($R = 0.198, P < 0.05$) and average shopping hours and the significant positive relationships between assurance ($R = 0.229, P < 0.05$) and shopping frequency per month. Showed the significant negative relationships between terrible products ($R = -0.196, P < 0.05$) and average shopping hours and the significant negative relationships between terrible products ($R = -0.215, P < 0.05$) and shopping frequency per month. Showed the significant negative relationships between worry about losing money ($R = -0.199, P < 0.05$) and average shopping hours. Others factors showed there are no significant relationships.

**Implication of the study**

1. The majority of the respondents were aged between 26-35 years old, holding bachelor's degree. They mostly worked in private companies with the average monthly income of 3601-6000 yuan. Therefore, if you want to increase online sales, you should develop marketing strategies for staff who have a bachelor's degree and work in the company.

2. Researchers recommend that merchants don't invest too much in quality, but can design more product packaging types, such as limited edition packaging.

3. The results of the study show that seller’s providing own mobile applications, may not help to increase the average shopping hours of Chinese consumers to shop online.

4. Businesses can launch marketing strategies such as allowance, e-coupons and flash sales.

5. Online insurance services are very necessary, and merchants can formulate marketing strategies here.

6. Most customers will worry about the delivery time of goods when shopping. If the delivery time is longer, their shopping times and browsing time will be reduced. Therefore, merchants can speed up the delivery time of goods.

**Limitations and Recommendations for Future Study**

The limitations of this study still leave the room for future studies in this area as follow:

1. The future study may replicate this study and extend sampling frame to other districts in different city, such as Beijing. The larger sample size may help to
increase the explanation power of the finding.

2. Another avenue for future study is to conduct a comparative study, comparing the factor affecting online shopping behavior of customers in different kind of online service, such as online teaching service, because there are few relevant literatures in this field, studying online teaching services will help make up for the lack of this field. And can better improve online teaching services.

3. Future studies may identify particular online shopping platform on this study in order to seek the deeper factors affecting purchasing decision, may be able to provide marketing strategies for e-commerce platforms.

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