Role of Perceived usefulness, Perceived convenience, Self-efficacy, perceived compatibility, and behavioral intention to use of elderly in online marketplace in Beijing, China

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ABSTRACT

The research investigated the role of perceived usefulness, perceived convenience, self-efficacy, perceived compatibility, and behavioral intention to use of elderly in online marketplace in Beijing, China. The conceptual framework was developed from the literature review, survey, and other contemporary research in elderly consumers' behavioral and behavioral intentions. Accordingly, the researchers consider the importance of perceived usefulness, perceived convenience, self-efficacy, perceived compatibility, and behavioral intention to use of elderly in online marketplace in Beijing, China. In this, the researchers employed the quantitative research approaches. The instruments of research were the steps of a questionnaire. Data were collected from 300 people who are elderly consumer in online marketplace in Beijing, China. The data collected were analyzed using descriptive statistics as mean, standard deviation, and percentage on the basis of observing the actual behavioral intention to use on the online marketplace studied through all operational links in management. Findings are applications of perceived usefulness, perceived convenience, self-efficacy, perceived compatibility, and behavioral intention to use are mostly-level.

INTRODUCTION

The advent of affordable smartphones and internet connectivity is a key factor driving the demand for retail packaging for digital stores. Thanks to technological advances, the number of people who can afford electronics such as smartphones has increased significantly over the past few years. Additionally, internet access has skyrocketed over the past few years, allowing more people to shop online. This has further led to the expansion of digital industries, including e-commerce, which in turn increases the demand for packaging solutions. The digital commerce market is driven by changing consumer preferences, population growth, and the increasing availability of internet connectivity and mobile phones worldwide.

According to the digital commerce market trends based on business type, the automotive segment generated the highest revenue in 2020 and is projected to maintain its dominance during the forecast period due to the rise in the adoption of digital commerce solutions among automobile manufacturers to gain a competitive edge, which is due to the increase in competition between e-commerce and omni channel players. However, the retail and consumer goods segment is expected to witness the highest growth during the forecast period. This is due to the adoption of digital technology in the sales and marketing of the product. Additionally, the rise in smartphone usage is fueling market growth.

Studying such important issues made the researcher interested in studying factors affecting elderly consumers' behavioral intentions in online marketplace in Beijing, China, which consists of important factors affecting the purchasing of products in online markets by elderly people in China. Perceived usefulness, perceived convenience, self-efficacy, perceived compatibility, behavioral intention to use. These various factors affect the willingness of elderly people to purchase products from online markets

Research on older adults in self-service In much of the literature examining adopter technology acceptance behavior, there is a near universal consensus that older adults are generally not early adopters (Rogers 1995) or early users of an innovation. As the innovation spreads through the social system, older adults tend to be late adopters and laggards in the social system (Kramer and Herbig,1994). Kramer and Herbig (1994) suggest that the main reason for this phenomenon may be due to Innovation Overload. Because older adults are unfamiliar with and less knowledgeable about technology-based products or services, they are often overwhelmed by an innovation and fear the negative consequences of mishandling it, etc.

1. Comparative study of older and younger groups

Most of the literature that has studied younger and older age groups in comparison has found differences in the adoption of self-service technology between older and younger age groups.

(1) Older people are late adopters of self-service technology compared to younger people.

How consumers shop is strongly influenced by their abilities and limitations (Underhill, 2000). Rogers (1962) notes that younger people tend to be innovators and early adopters, while those who struggle to keep up (laggards) tend to be older.

As for the older consumers, although self-service technology has been launched for a long time. Rogers (2003) believes that the time when the product launched cannot be used as a basis for judgment of innovation. Self-service technology is considered new by older consumers is an innovation.

(2) Prior experience with self-service has a greater impact on older age groups compared to younger age groups.

Lee & Lyu (2019) to examine the factors that influence consumers' intentions to use self-checkout technology, a sample of young and old consumers was selected. The result has found the significant discrepancies between older and younger consumers, particularly in terms of prior experience and service quality. Older adults' prior experience with use of self-checkout technology had a significant impact on intention to use self-checkout technology, but this was not significant for younger adults. In contrast, Compared to older consumers, younger people showed a stronger correlation between service quality and self-checkout usage intentions. This further illustrates the importance of treating older consumers as a separate segment and using a different marketing focus than younger consumers in the self-service space.

(3) Given a choice, older people will prefer to use manual services.

Dean (2008) compared the variability in intention to adopt self-service technologies between three age groups in the context of eight self-service technologies and found that individuals who were older were less likely to choose to use self-service when given the option to do so, for reasons related to limited experience of use leading to less confidence in successful use of self-service.

Wu, Liu and Kardes (2020) conducted a comparative study of self-service technology adoption intentions of older and younger consumers and found that older consumers preferred manual service over younger consumers due to a greater preference for convenience factors. However, older adults also perceive the value of self-service technology when it is only available.

(4) Peers will have an impact on the self-service adoption behavior of the elderly group

Wang, Harris and Patterson (2012) conducted in-depth interviews with customers who used self-checkout machines versus manual checkout in supermarkets and found that older consumers were less likely to use self-checkout machines, but were willing to try them due to the increased social value of peer influence.

METHODOLOGY

The study of Role of perceived usefulness, perceived convenience, self-efficacy, perceived compatibility, and behavioral intention to use in online marketplace in Beijing, China, the researcher has studied documents, textbooks, concepts, theories, and related research consistent with the study's objectives. This research is quantitative research in the format is survey research. The selected sample used in this study was for Chinese elderly customer who come to use an online marketplace in Beijing and the researcher chooses the top online marketplace in serving 3 tops online marketplace in Beijing China, including Amazon.com, Inc; eBay, Inc; J.D..com, Inc from 1 August – 30 August 2023. The sampling is 385 people by the formula W.G. Cochran (1953), but the exact population was unknown. Therefore, a calculation method was used using the formula W.G. Cochran (1953) at a confidence level of 95% with a tolerance of ± 5% as follows.The researcher used a descriptive statistics analysis technique to analyze the data by statistical analysis

RESULTS

Personal characteristics of Chinese customer in Beijing, China

Table 1 Personal characteristics of Chinese customer in Beijing, China

Characteristics of Chinese customer	number (n=385)	Percentage
1. Gender		
- Male	228	59.22
- Female	157	40.78
2. Age		
- 18 - 25 Year	111	28.83
- 26 – 35 year	64	16.62
- 36 – 45 year	129	33.51
- More than 46 year	81	21.04
3. Marital status		
- single	127	32.99
- married	137	35.58
- divorced	121	31.43

4.	Degree of education		
-	lower than bachelor's degree	117	30.39
-	Bachelor's degree	128	33.25
-	Graduated	140	36.36
5.	Working time		
-	1-3 years	122	31.69
-	4-6 years	182	47.27
-	More than 7 years	81	21.04
6.	Monthly income	-	
-	1000-3000 Yuan	130	33.76
-	3001-5000 Y uan	140	36.36
-	5001-8000 Yuan	115	29.87

From the table 4.1, the perspective of gender, male are significantly higher than female, accounting for 59.22 percentage, and female 40.78 percentage.

Regarding the age of elderly Chinese customer, the highest proportion was 36-45 years old, accounting for 33.51%, followed by elderly Chinese customer aged 18-25 years and elderly Chinese customer aged 26-35 years, accounting for 28.83% and 16.62%, respectively, and elderly Chinese customer over 46 years old. Representing 21.04% said that fast food restaurants elderly Chinese customer who responded to the survey were generally middle age.

Regarding marital status, 35.58% were single, 32.99% were divorced, and 31.43% were related to the age distribution. The company had many elderly Chinese customer.

From the perspective of educational background, elderly Chinese customer in Beijing China generally have lower than bachelor's degree, Bachelor's degree, and postgraduate accounting for 30.39, 33.25 and 36.36% respectively.

From the perspective of working years, the elderly Chinese customer in Beijing China are generally in the range of 1-3 years, 4-6 years of employment, accounting for 31.69 and 47.27 respectively, and the employees who have worked for more than 7 years also account for a certain proportion, 21.04%.

In terms of monthly income, 36.36% of elderly Chinese customer in Beijing China have a monthly income of 3000-5000 Yuan, 29.87% of elderly Chinese customer have a monthly income of 5000-8000 Yuan, and only 33.76% of elderly Chinese customer have a monthly income of 1000-3000 Yuan, indicating that the average monthly income of elderly Chinese customer has basically reached the middle-income level.

To study Perceived usefulness, perceived convenience, self-efficacy, perceived compatibility, behavirol intention to use in online marketplace in Beijing, China

4.1 Perceived usefulness

Table 4.2 the level of opinion about the Perceived usefulness

Perceived usefulness	Mean	S.D.	Level	Rank
1. I know that purchasing products through online marketplace platforms is convenient.	3.982	.551	most	5
2. I know that purchasing products through online marketplace platforms is financially safe.	4.331	.598	mostly	2
3. I know that purchasing products through online marketplace platforms will be delivered quickly.	4.342	.567	mostly	1
4. I know that purchasing products through online marketplace platforms receives the correct product according to the order	4.123	.623	most	3
5. I know that purchasing products through online marketplace platforms is no ǐhave problem or damage.	4.012	.612	most	4
Total	4.158	.590	most	

4.2 Perceived compatibility

Table 4.3 the level of opinion about Perceived compatibility

Perceived compatibility	Mean	S.D.	Level	Rank
1．It is very easy for me to purchasing products using the online marketplace platforms.	4.108	.589	most	5
2．I can learn to purchasing products through the online marketplace platforms in just a few minutes.	4.114	.612	most	4
3．It only takes me a few minutes to purchasing products through the online marketplace platforms.	4.355	.590	mostly	2
4．I can purchasing products through the online marketplace platforms while traveling.	4.254	.654	mostly	3
5. I can so happiness purchasing products through the online marketplace platforms	4.442	.643	mostly	1
Total	4.255	.618	mostly	

4.3 Self-Efficacy

Table 4.4 the level of opinion about after Self-Efficacy

Self-Efficacy	Mean	S.D.	Level	Rank
1. I like purchasing products through the online marketplace platforms.	4.121	.662	most	4
2．I purchasing products through the online marketplace platforms rather than in-store.	4.103	.628	most	5
3．I feel that purchasing products through the online marketplace platforms has more products to easy choose from than in the store.	4.201	.568	mostly	3
4．I feel that purchasing products through the online marketplace platforms is more comparable.	4.339	.619	mostly	1
5. I prefer purchasing products through the online marketplace platforms rather than going to buy from the store.	4.221	.611	mostly	2
Total	4.197	.618	most	

4.4 Perceived Convenience

Table 4.5 the level of opinion about Perceived Convenience

Perceived Convenience	Mean	S.D.	Level	Rank
1．Service online marketplace platforms is considered convenient when it saves time for consumers.	3.985	.548	most	5
2．Using an online marketplace platforms reduces product lead times.	4.114	.612	most	4
3. Using online marketplace platforms, it is easy to purchasing products	3.921	.636	most	6
4．Using online marketplace platforms provides convenience to buyers.	4.343	.638	mostly	1
5．Using online marketplace platforms to get products quickly.	4.287	.654	mostly	2
6. I am confident that the products sold on online marketplace platforms are good quality	4.215	.681	mostly	3
Total	4.144	.628	most	

4.5 Behavioral intention to use

Table 4.6 the level of opinion about the Behavioral intention to use

Behavioral intention to use	Mean	S.D.	Level	Rank
1. I have an intention to purchasing products through online marketplace platforms only.	4.117	.611	most	4
2. I intend to shop through an online marketplace platforms even though there are many alternatives.	4.312	.633	mostly	3
3. I have the intention the purchasing products through an online marketplace platforms even though I find the same product at another store.	4.438	.595	mostly	1
4. I intend to recommend purchasing products through online marketplace platforms to friends and relatives.	4.344	.582	mostly	2
Total	4.302	.605	mostly	

4.6 The factors affecting the overall

Table 4.7 the level of opinion about the factors affecting the overall

Variable	Mean	S.D.	Level	Rank
1. Perceived usefulness	4.158	.590	most	4
2. Perceived compatibility	4.442	.643	mostly	1
3. Self-Efficacy	4.197	.618	most	3
4. Perceived convenience	4.144	.628	most	5
5. Behavioral intention to use	4.302	.605	mostly	2
Total	4.249	.617	mostly	

CONCLUSION

(1) The level of opinion about the factors affecting the overall

The mean and standard deviation of opinion levels regarding factors affecting behavioral intention to use are at a most overall level, with a mostly-level mean at 4.249. From each variable, we found that the mostly average was perceived compatibility (4.442), at a mostly level, followed by behavioral intention to use (4.302), at a mostly level, self-efficacy (4.197) at a most level, perceived usefulness (4.158), at a most level, and the lowest was perceived convenience, with an average of 4.144.

(2) Perceived usefulness

The mean and standard deviation of the opinion level of the perceived usefulness variable is at a high level, with the mean value at a most level being 4.158. Comprehensive from all aspects, the average of the mostly side is "I know that purchasing products through online marketplace platforms will be delivered quickly", mostly level average of 4.342, followed by "I know that purchasing products through online marketplace platforms is financially safe" mostly level of average of 4.331, "I know that purchasing products through online marketplace platforms receives the correct product according to the order" most level of average of 4.123, "I know that purchasing products through online marketplace platforms is no have problem or damage" most level of average of 4.012, the last is " I know that purchasing products through online marketplace platforms is convenient", the average is 3.982, in the most level.

(3) Perceived compatibility

The mean and standard deviation of the opinion level of the perceived compatibility variable is at a high level, with the mean value at a mostly level being 4.255. Comprehensive from all aspects, the average of the mostly side is "I can so happiness purchasing products through the online marketplace platforms", mostly level average of 4.442, followed by "It only takes me a few minutes to purchasing products through the online marketplace platforms" mostly level of average of 4.355, "I can purchasing products through the online marketplace platforms while traveling" mostly level of average of 4.254, "I can learn to purchasing products through the online marketplace platforms in just a few minutes" most level of average of 4.114, the last is "It is very easy for me to purchasing products using the online marketplace platforms", the average is 4.108, in the most level.

(4) Self-Efficacy

The mean and standard deviation of the opinion level of the self-efficacy variable is at a most level, with the mean value at a most level being 4.197. Comprehensive from all aspects, the average of the mostly side is "I feel that purchasing products through the online marketplace platforms is more comparable", mostly level average of 4.339, followed by "I prefer purchasing products through the online marketplace platforms rather than going to buy from the store" mostly level of average of 4.221, "I feel that purchasing products through the online marketplace platforms has more products to easy choose from than in the store" mostly level of average of 4.201, "I like purchasing products through the online marketplace platforms" most level of average of 4.121, the last is "I purchasing products through the online marketplace platforms rather than in-store", the average is 4.103, in the most level.

(5) Perceived Convenience

The mean and standard deviation of the opinion level of the perceived convenience variable is at a most level, with the mean value at a most level being 4.144. Comprehensive from all aspects, the average of the mostly side is "Using online marketplace platforms provides convenience to buyers", mostly level average of 4.343, followed by "Using online marketplace platforms to get products quickly" mostly level of average of 4.287, "I am confident that the products sold on online marketplace platforms are good quality" mostly level of average of 4.215, "Using an online marketplace platforms reduces product lead times" most level of average of 4.114, "Service online marketplace platforms is considered convenient when it saves time for consumers" most level of average of 3.985, the last is "Using online marketplace platforms, it is easy to purchasing products", the average is 3.921, in the most level.

(6) Behavioral intention to use

The mean and standard deviation of the opinion level of the behavioral intention to use variable is at a mostly level, with the mean value at a mostly level being 4.302. Comprehensive from all aspects, the average of the mostly side is "I have the intention the purchasing products through an online marketplace platforms even though I find the same product at another store", mostly level average of 4.438, followed by "I intend to recommend purchasing products through online marketplace platforms to friends and relatives" mostly level of average of 4.344, "I intend to shop through an online marketplace platforms even though there are many alternatives" mostly level of average of 4.312, the last is "I have an intention to purchasing products through online marketplace platforms only", the average is 4.117, in the most level.

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