Factors Affecting Elderly Consumers' Behavioral Intentions in online marketplace in Beijing, China

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ABSTRACT

The research was to investigate actual factors affecting elderly consumers' behavioral intentions in online marketplace in Beijing, China. The conceptual framework was developed from the literature review and survey in the area and other contemporary research in consumers' behavioral intention and consumer behavior management. Accordingly, the researchers consider the importance of the factors of perceived usefulness, perceived convenience, self-efficacy, perceived compatibility, behavioral intention to use. In this the researchers employed the quantitative research approaches. The instruments of research were steps of a questionnaire. Data were collected from 385 people who are Chinese elderly customer of online marketplace in Beijing who use service on online marketplace in Beijing. The data collected were analyzed using multiple regression analysis and on the basis of observing the actual consumers' behavioral intentions of the organizations studied through all operational links in the consumer behavior management and consumers' behavioral intention.

Findings are as follows: Applications of perceived usefulness, perceived convenience, self-efficacy, perceived compatibility were explanatory of the variance in behavioral intention to use at 39.1 percent (R2 = 0.391). Each factor involves significant aspects with the total being 25. All aspects should be addressed if problems are to be successfully solved over the long haul.

Keywords: consumers' Behavioral intentions, elderly consumers' behavioral

INTRODUCTION

Global Digital Commerce Market Overview The report focuses on the growth prospects, Digital Commerce market forecast, restraints, and analysis of the Digital Commerce market. The study provides Porter's five forces analysis of the digital commerce industry to understand the impact of various factors such as the bargaining power of suppliers, the competitive intensity of competitors, the threat of new entrants, the threat of substitutes, and the bargaining power of buyers in the e-commerce market trends. (Porter, 1976; Kotler, 1997; Porter, 2008).

Factors such as the rise in internet and smartphone penetration, growth in the use of social media and social commerce, and the development of various payment modes are driving the digital commerce market. However, online fraud and cyber security issues, and a lack of consumer confidence in online shopping are restraining the market globally. In addition, the expansion of cross-border e-commerce and digital commerce automation are creating lucrative opportunities in the market. (Porter, 1976; Porter, 2008).

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. (Porter, 1976; Porter, 2008).

Trend of World Aging The 2019 Revision of World Population Prospects published by united nations shows that globally, one in six people will be over 65 years of age by 2050, there is an aging population in almost every country in the world, with a rise in the number and percentage of senior people. In the future, the aging of the population is likely to become a major social trend that will affect almost all social fields.

The elderly population in China began increasing In the late 20th century, and their number and proportion increased significantly. Based on the most recent census from the National Bureau of Statistics, on May 11, 2021, there were 264.02 million people age 60 and over, representing 18.70%, with 190.64 million people aged 65 and over, constituting 13.50%. There is a report proposed by (Wu, Liu, & Kardes, 2020), they conducted research on the elderly market in China, and the survey results showed that China's aging population is predicted to reach 106 trillion yuan in consumption potential by 2050, making the country the country with the largest aging industry market potential globally.

According to the above data, global population aging, including that in China, is a foregone conclusion, and the effects of population aging will be felt across the board. From the viewpoint of theory, further research into the elderly population is necessary to better understand their characteristics and to guide the development of related practices; from the viewpoint of the enterprise, enterprises should focus on the consumption potential of the elderly, according to the consumption demand of the elderly population, and actively carry out various marketing activities aimed at the elderly population to improve the competitiveness of enterprises.

METHODOLOGY

The study of factors affecting elderly consumers' behavioral intentions 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 research tool was a questionnaire. Data was collected by instrument-based interviews. the population is Chinese customer who teenage come to order fast food restaurants in Beijing, China which the population is Chinese elderly people who come to buy something from online marketplace which the researcher did not know the exact number during the research. 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) the Sampling method that researchers recruited subjects to collect data only on Mondays, Wednesdays and Fridays for 4 weeks in August 2023 and distributed questionnaire convenience method to 385 subjects according to the formula formulated by W.G. Cochran (1953). The confidence level is 95%. Multiple Regression Analysis to test the influence of variables between perceived usefulness, perceived convenience, self-efficacy, perceived compatibility, behavioral intention to use.

RESULTS

Determination of instrument confidence

Reliability Test (Reliability) The researcher used the revised questionnaire to try out the researcher (Try Out) with Chinese elderly customer who come to use online marketplace in Beijing 30 people who are not a sample group. Internal consistency was tested using composite reliability and Cronbach' Alpha coefficients, where the researchers analyzed the reliability coefficients of each question and each measure. The alpha value is between 0.5 – 0.65, which is a moderately reliable value. And at values from 0.7 and up, it has quite high reliability. But if it is below 0.5, it is less reliable. Normally, the criterion used to measure these two values should not be less than 0.6 (Cronbach, 1990).

Validity checking after collecting the data, the researchers checked their validity using the corrected Item-total correlation. Which is a measure of the correlation between the score of any question and the total score of the category in which the question appears, in the calculation process, the total score must be adjusted by deducting the data value of any question issued in order to prevent the information of the questionnaire from appearing in both places. The decision criteria were that the correlation must not be less than 0.70.

The reliability and validity test results are shown in the following table.

Table 1 Results of testing reliability and validity by statistical methods

Variable	Corrected Item-Total Correlation	Cronbach's Alpha
Perceived usefulness		0.919
1. I know that purchasing products through online marketplace platforms is convenient.	0.787	
2. I know that purchasing products through online marketplace platforms is financially safe.	0.859	
3. I know that purchasing products through online marketplace platforms will be delivered quickly.	0.855	
4. I know that purchasing products through online marketplace platforms receives the correct product according to the order	0.848	
5. I know that purchasing products through online marketplace platforms is no have problem or damage.	0.873	

Perceived compatibility		0.887
1. It is very easy for me to purchasing products using the online marketplace platforms.	0.865	
2. I can learn to purchasing products through the online marketplace platforms in just a few minutes.	0.813	
3. It only takes me a few minutes to purchasing products through the online marketplace platforms.	0.899	
4. I can purchasing products through the online marketplace platforms while traveling.	0.844	
5. I can so happiness purchasing products through the online marketplace platforms	0.877	
Self-Efficacy		0.887
1. I like purchasing products through the online marketplace platforms.	0.839	
2. I purchasing products through the online marketplace platforms rather than in-store.	0.846	
3. I feel that purchasing products through the online marketplace platforms has more products to easy choose from than in the store.	0.867	
4. I feel that purchasing products through the online marketplace platforms is more comparable.	0.912	
5. I prefer purchasing products through the online marketplace platforms rather than going to buy from the store.	0.855	
Perceived Convenience		0.905
1. Service online marketplace platforms is considered convenient when it saves time for consumers.	0.793	
2. Using an online marketplace platforms reduces product lead times.	0.822	
3. Using online marketplace platforms, it is easy to purchasing products.	0.786	
4. Using online marketplace platforms provides convenience to buyers.	0.839	
5. Using online marketplace platforms to get products quickly.	0.855	
6. I am confident that the products sold on online marketplace platforms are good quality	0.995	

Behavioral intention to use		0.919
1. I have an intention to purchasing products through online marketplace platforms only.	0.943	
2. I intend to shop through an online marketplace platforms even though there are many alternatives.	0.855	
3. I have the intention the purchasing products through an online marketplace platforms even though I find the same product at another store.	0.947	
4. I intend to recommend purchasing products through online marketplace platforms to friends and relatives.	0.923	

The results of the study of factors affecting elderly consumers' behavioral intentions in online marketplace in Beijing, China are as follows:

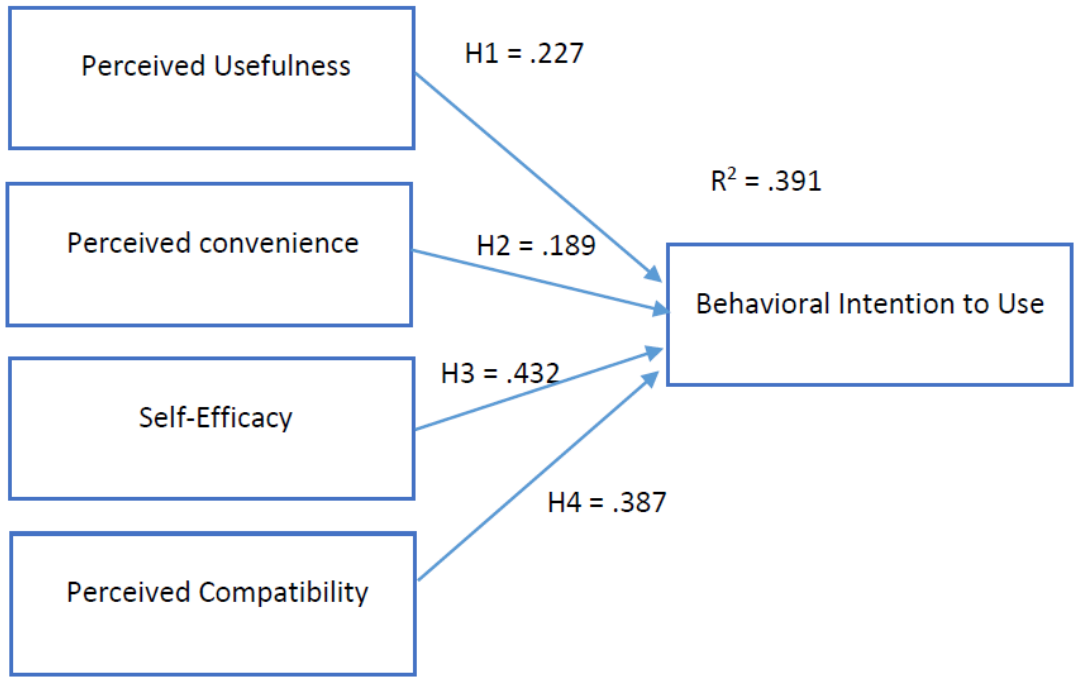

Figure 4 Results of path analysis

Research hypothesis testing

The researcher formulates research hypotheses for testing in accordance with the route equation according to the route analysis model with the following equations and assumptions:

$$BEI = \beta 0 + \beta 1\ PEU + \beta 2PEC + \beta 3SEF + \beta 4PCO + \zeta 1 \ldots\ldots\ldots\ldots\ldots (1)$$

The hypothesis testing are as follow:

H1: Perceived usefulness positive direct effect on behavioral intention to use

H2: Perceived convenience positive direct effect on behavioral intention to use

H3: Self-efficacy positive direct effect on behavioral intention to use

H4: perceived compatibility positive direct effect on behavioral intention to use

Table 2 Hypothesis Testing Results

Path	**Path coefficient**	**t-stat**	**p-value**	**Hypothesis**
H1: Perceived usefulness → Behavioral intention to use	0.227	4.113***	0.000	support
H2: Perceived convenience → Behavioral intention to use	0.189	3.916***	0.000	support
H3: Self-Efficacy → Behavioral intention to use	0.432	5.339***	0.000	support
H4: Perceived compatibility → Behavioral intention to use	0.387	2.448***	0.000	support

Table 3 Influence of variables affecting behavioral intention to use

Endogenous	R square	Effect	Antecedents			
			PEU	PEC	SEF	PCO
BEI	0.391	Direct Effect	0.227	0.189	0.432	0.387
		Indirect Effect	N/A	N/A	N/A	N/A
		Total Effect	0.227	0.189	0.432	0.387

From the table of hypothesis test results

Hypothesis 1 found that Perceived usefulness (PEU) has a direct influence on Behavioral intention to use (BEI), true to the hypothesis. The path coefficient is equal to 0.227 and the t-statistics value is 4.113. The p-value is close to 0.000, which is a statistically significant value.

Hypothesis 2 found that perceived convenience (PEC) has a direct influence on Behavioral intention to use (BEI), true to the hypothesis. With a path coefficient of 0.189, a t-statistics value of 3.916, the p-value is close to 0.000, which is a statistically significant value.

Hypothesis 3 found that self-Efficacy (SEF) has a direct influence on Behavioral intention to use (BEI), true to the hypothesis. It has a path coefficient of 0.432, a t-statistics value of 5.339 and a p-value close to 0.000, which is a statistically significant value.

Hypothesis 4 found that perceived compatibility (PCO) has a direct influence on Behavioral intention to use (BEI), true to the hypothesis. It has a path coefficient of 0.387, a t-statistics value of 2.448 and a p-value close to 0.000, which is a statistically significant value.

The significance level was tested at 0.01.

Table 4 Summary of hypothesis test results

hypothesis	results	Path coefficient	R^2
H1: Perceived usefulness positive direct effect on behavioral intention to use	Accept	0.227	0.391
H2: Perceived convenience positive direct effect on behavioral intention to use	Accept	0.189	0.391
H3: Self-efficacy positive direct effect on behavioral intention to use	Accept	0.432	0.391
H4: perceived compatibility positive direct effect on behavioral intention to use	Accept	0.387	0.391

CONCLUSION

The study of factors affecting elderly consumers' behavioral intentions in online marketplace in Beijing, China was based on regression equation analysis. It was found that checking the preliminary terms of linearity and checking the regression coefficient had a positive linear relationship between the variables. All 5 factors including perceived usefulness, perceived convenience, self-efficacy, perceived compatibility, behavioral intention to use were positively linear, which was consistent with agreement. It was also found that there were mutually positive influences, perceived usefulness, perceived convenience, self-efficacy, perceived compatibility. There is a positive direct influence on behavioral intention to use, indicating that the results of the study confirm the consistency of the purchasing products on online marketplace in Beijing, behavioral intention to use variable that is consistent and has a real interplay and can be used in behavioral intention to use in the purchasing products on online marketplace in Beijing, China

REFERENCES

Cochran, W.G. (1953). Sampling Techniques. New York: John Wiley & Sons.

Cronbach, L. J. (1990). Essentials of psychological testing. 5 th ed. New York: Harper & Row.

Kotler, P. (1997). Advance Marketing Management. (9th ed). New Jersey: Prentice Hall.

Porter, M. E. (1976). How Competitive Forces Shape Strategy. Harvard Business Review 57, no. 2 (March–April 1979): 137–145.

Porter, Michael E. (2008). The Five Competitive Forces That Shape Strategy. Special Issue on HBS Centennial. Harvard Business Review 86, no. 1 (January 2008): 78–93.

Wu, R., Liu, M. and Kardes, F. (2021), Aging and the preference for the human touch, *Journal of Services Marketing*, Vol. 35 No. 1, pp. 29-40.