Purchase Intention of Silver-Haired Generation in Context of Online Shopping --Taking the Interaction Willingness and Perceived Value of Silver-Haired Individuals as an Example

Chuze Han

Marketing and Brand Management, Macao University of Tourism, Macao, China
D246163@utm.edu.mo

Abstract. With the advent of the new retail era and the development of the e-commerce economy, online shopping has become a new way of consumption for residents, and a growing number of silver-haired groups are starting to explore online shopping. The silver economy presents enormous potential in the context of online shopping. This paper focuses on the silver-haired generation and establishes a model to analyze the characteristics and influencing factors of their online purchasing behavior. The independent variables of the model are the silver-haired generation's willingness to engage in interaction on online shopping platforms and their perceived value, the mediating variable is customer satisfaction, and the dependent variable is their purchase intention. Based on the model, this study designed a questionnaire validation and data analysis, and concluded that the silver-haired generation's willingness to interact on online shopping platforms and their perceived value increases their purchase intention by enhancing customer satisfaction. On the basis of this conclusion, this paper suggests that online shopping platforms can increase interaction and explanation to control the silver-haired customers' perception of functional, economic, social, and other values to enhance their satisfaction, and drive them to generate purchase intentions, thereby stimulating the vitality of the silver economy.

Keywords: Silver-Haired Consumers, Interaction Willingness, Perceived Value, Satisfaction, Purchase Intention

1. Introduction

With the rapid development of Internet technology and the popularization of e-commerce, online shopping has become an important way of modern consumption. As population aging accelerates in China, the silver-haired generation has become a can-not-be-ignored consumer group in the digital era [1]. As of 2023, the number of netizens aged 60 and above had exceeded 150 million domestically, and the internet usage rate of the silver-haired population has significantly increased. For example, Duan Yuzhen & Lv Xin believe that mobile internet has penetrated into the silver-haired generation's lives and has had a great impact on them [2]. The frequency and scale of online shopping among the silver-haired generation are gradually expanding. Consequently, due to their large scale, strong consuming power, and constantly changing consumption demands, an emerging

market concerned by e-commerce platforms and numerous manufacturers is gradually forming among this group. Interaction willingness refers to the information collaborative network among live streamers, consumers, and users in the context of live e-commerce. That is to say, two-way information penetration is achieved through channels such as bullet comments, messages, and real-time likes. Consumers will continue to be in a strong interactive atmosphere by engaging in real-time interaction with the live streamers through the above channels during the live broadcast. For the silver-haired generation, a good willingness to interact can reduce their usage threshold for online shopping, enhance their sense of trust, and thus increase their intention to purchase. Perceived value is the subjective evaluation of the utility of a product or service by users, including functional value, emotional value, economic value, social value, etc. Silver-haired individuals may be more concerned about convenience, safety, and after-sales service when shopping online, factors that directly affect their perceived value.

Although the internet usage rate of the silver-haired generation has been increasing year by year, their participation in online shopping is still relatively low. Compared to the younger generation, the silver-haired generation faces certain obstacles in adapting to digital technology, operating online platforms, and trusting online transactions. Most existing online shopping is designed for young people, so there is relatively little attention paid specifically to the purchase intention of silver-haired individuals. Therefore, this study investigates two aspects that affect the purchase intention of the silver-haired generation: the willingness to interact on online platforms and the silver-haired generation's perceived value.

This study introduces the silver-haired generation's willingness to interact on online platforms and their perceived value as variables, enriching the research perspective on the online consumption behavior of the silver-haired population theoretically, promoting the government to formulate relevant policies to regulate the online shopping of the silver-haired population practically, and encouraging online platform enterprises to pay attention to optimizing the silver-haired generation's consumption experience. This research not only helps to reveal the behavioral patterns of the silver-haired generation in online shopping and promote the healthy development of the silver economy, but also pushes for the upgrade of online shopping for silver-haired individuals.

2. Research design

2.1. Extraction of existing variables

At present, there have been discussions on the dependence of the silver-haired generation on mobile phones, and it has been found that they rely heavily on digital products like mobile phones currently [1]. There is also a study, not targeting the silver-haired population, which examines the relationship among service quality of shopping websites, customer trust, and customer satisfaction, and explores the factors influencing customers' purchase intention during online shopping [2]. In terms of variable definitions, relevant research has provided relatively clear definitions for customer satisfaction, interaction willingness, and perceived value, providing a basic theory for this research [3]. Therefore, the independent variables extracted are interaction willingness and perceived value, where perceived value is divided into perceived functional value, perceived social value, perceived economic value, and perceived emotional value. Besides, the purchase intention serves as the dependent variable, while customer satisfaction is extracted as a mediating variable.

2.2. Variable design

Building on the current research, this study takes interaction willingness and perceived value as independent variables, customer satisfaction as the mediating variable, and purchase intention as the dependent variable. The model is shown in Figure 1.

Customer satisfaction was first introduced into the marketing field by Cardozo and later defined by different scholars in the field. Spreng thinks that customer satisfaction refers to the emotional and rational perception generated by consumers when evaluating their purchasing process after making a purchase [3]. Kotler holds that customer satisfaction is the customer's level of psychological pleasure after they compare the intuitive performance of a product with their expectations of it [3].

Huang Lan believes that the interaction willingness refers to the information collaborative network among live streamers, consumers, and users in the context of live e-commerce [4]. That is to say, the two-way information penetration is achieved through channels such as bullet comments, messages, and real-time likes. Therefore, the hypothesis is proposed:

H1: In the context of online shopping, the interaction willingness of the silver-haired generation on online platforms has a positive effect on their customer satisfaction.

Huang Lan deems that perceived value can be divided into four levels. Perceived functional value refers to consumers' perception regarding the utility of product functions and the trustworthiness of services; perceived economic value refers to consumers' perception of the economic benefits or cost savings that a product or service brings when purchasing or using it; perceived emotional value indicates the emotional response generated by users from it, while perceived social value refers to the shaping and enhancing of self-image that consumers hope for, as well as the social support they seek [4]. Therefore, the hypothesis is proposed:

H2: The perceived value of the silver-haired generation in the context of online shopping has a positive effect on their customer satisfaction.

Zuo Wenming, Wang Xu, and Fan Chang maintain that purchase intention refers to the possibility of purchasing formed after consumers' subjective perception of a product in a specific context, and it is also a key prerequisite for generating purchasing behavior [5]. Therefore, this study introduces the purchase intention of the silver-haired generation as the dependent variable. The hypothesis is proposed:

H3: In the context of online shopping, the customer satisfaction of the silver-haired generation has a positive mediating effect on their purchase intention.

Figure 1. Variable model design diagram

3. Questionnaire survey and data analysis

The study adopted a questionnaire method, and the questionnaire design mainly includes the following three parts: the first part is the introduction of the questionnaire, which clarifies the survey purpose and provides a brief introduction to the study to the respondents. The second part is to

collect basic personal information of the silver-haired group surveyed, such as gender, age, and consumption expenditure. Moreover, consumers with online platform purchasing experience will be selected through screening questions to improve the accuracy of the questionnaire. The third part is the main body of the questionnaire, which contains the questions regarding the interaction willingness on online shopping, perceived value, and customer satisfaction of silver-haired consumers. It is designed to explore how the independent variables of interaction willingness and perceived value affect the purchasing decisions of silver-haired consumers through the mediating role of customer satisfaction.

3.1. Descriptiveness & reliability analysis

This study conducted descriptive statistics on the samples using SPSS software, aiming to understand the basic situation of the survey subjects. In terms of gender, the proportions of males and females were 46.6% and 53.4%, respectively. The gender distribution was even and reasonable. In terms of age, samples that are not within the age range of the research subjects have been excluded in preliminary screening; hence, all the sample subjects studied are within the scope of discussion in this paper. Simultaneously conducting reliability analysis on four variables to demonstrate the reliability of the designed question, the alpha coefficient for customer satisfaction reliability is between 0.8 and 0.9, while the coefficients of the remaining variables are all greater than 0.9. These indicate that the scale has good reliability and is suitable for use.

3.2. Correlation analysis

Correlation analysis refers to the analysis of two or more variables with correlation to measure the degree of closeness between them. According to the correlation analysis table (Table 1), $p<0.01$, and Pearson correlation** is at the 0.01 level (two-tailed). It is concluded that interaction willingness and perceived value each have a significant positive correlation with satisfaction. The data show a significant relationship between the interaction willingness and perceived value of the silver-haired generation and their customer satisfaction. Based on these, regression analysis can be conducted to further explore the relationship between the interaction willingness and perceived value of silver-haired customers, and their customer satisfaction and purchase intention.

Table 1. Correlation analysis table

Correlation			
		Interaction willingness	Satisfaction
Interaction willingness	Pearson correlation	1	.617**
	Significance (two-tailed)		.000
	Number of cases	73	73
Satisfaction	Pearson correlation	.617**	1
	Significance (two-tailed)	.000	
	Number of cases	73	73
Correlation			
		Perceived Value	Satisfaction
Perceived Value	Pearson correlation	1	.871**
	Significance (two-tailed)		.000
	Number of cases	73	73
Satisfaction	Pearson correlation	.871**	1
	Significance (two-tailed)	.000	
	Number of cases	73	73

3.3. Regression analysis

Regression analysis is a statistical analysis method that quantifies the interdependent relationship between variables. It aims to demonstrate through regression analysis the role of interaction willingness and perceived value in customer satisfaction, as well as the mediating effect of customer satisfaction in the relationship between the independent variable of interaction willingness and perceived value, and the dependent variable of purchase intention. For interaction willingness, the adjusted R-squared value is 0.393, and the result of analysis of variance is less than 0.05, indicating significance; the coefficient is less than 0.05, also indicating significance. For perceived value, the adjusted R-squared value is 0.699, and the result of analysis of variance is less than 0.05, indicating significance, while the coefficient is less than 0.05, also indicating significance. For satisfaction, regression analysis was used to first verify the relationship between the independent variables of interaction willingness and perceived value, and mediating variables, and the analysis results were all significant. Then, a quadratic regression analysis was conducted on them and the dependent variable, and the results were all significant. Therefore, it can be proven that the interaction willingness and perceived value of the silver-haired generation on online platforms have a positive effect on their customer satisfaction, respectively. In the context of online shopping, customer satisfaction of the silver-haired generation plays a positive mediating role in their purchase intention.

Thus, based on the results of data correlation and regression analysis, it can be demonstrated that:

The interaction willingness on online shopping platforms has a positive impact on the satisfaction of silver-haired customers. Such willingness helps silver-haired customers overcome their fear of technology via live streaming, clear buttons, voice assistants, and so on, while also increasing their shopping experience, allowing them to feel a sense of social belonging or trust. These two factors are positive drivers for the silver-haired generation to generate purchase intention. Although they have certain blind spots in online shopping, with the help of platform interactions, many of their

demands are met, and their emotions are thus conveyed. In such cases, they feel a sense of satisfaction, which in turn leads them to make consumption decisions.

The perceived value of silver-haired individuals has a positive impact on their customer satisfaction. During the process of watching live streams and participating in online shopping, silver-haired customers gain satisfaction in various aspects (including social, emotional, and economic aspects), thanks to the quality and affordability of commodities, detailed function explanations, and the social system of online shopping. What's more, they obtain different perceived values through different means such as communication, interaction, and product selection, thereby gaining satisfaction and generating purchase intention [6].

The satisfaction of silver-haired customers has a positive impact on their purchase intention. In the process of experiencing shopping, silver-haired customers gain satisfaction due to the detailed explanations on online shopping platforms, high quality and affordability of products, social attributes, or other reasons. When customers are satisfied with the products, they will develop loyalty and dependence on online shopping, thus sustaining the intention to purchase.

4. Suggestions

With the acceleration of the aging process and the continuous expansion of the elderly population in China, the silver economy is gradually becoming a new engine driving economic growth [7]. Since the Internet era began, online shopping has grown steadily. Yet the society often has a stereotype that the silver-haired generation prefers traditional offline shopping—a view disproven by their rising online shopping sales. Building on these research results, it can be recognized that enhancing the willingness to interact on online shopping platforms, the perceived value, and satisfaction of silver-haired customers can all stimulate their purchase intention. Therefore, the following suggestions are proposed.

4.1. Enhance customers' willingness to interact on online shopping platforms

Based on the above results, first, voice assistants can be set up on live streaming platforms to help the silver-haired generation finish shopping. (Voice commerce is the use of voice commands or virtual assistants to buy goods and services, typically via voice-recognition devices or connected gadgets, letting consumers browse, add products to their shopping carts, and complete transactions entirely by speaking) [8]. Second, the brands can set up communication groups for silver-haired customers to boost friendly interaction among them. These groups can also serve as channels to recommend products among silver-haired customers, which in turn enhances their customer satisfaction. Finally, actively offer live streaming courses to help the silver-haired generation solve problems. For those whose children are far away, set up a home voice system to solve problems and boost interaction, allowing their children to remotely assist them with solving problems in online shopping operations, in a bid to increase their satisfaction during shopping [9].

4.2. Increase the perceived value of the silver-haired generation

Based on the results of the previous argument and literature review, firstly, the design of online platforms can be optimized, such as the design of silver-friendly apps. By adjusting font size, the silver-haired generation can perceive the value of emotional pleasure, increase their satisfaction, and thus help them effectively filter information to prevent fraud [10]. Secondly, self-pickup points and home delivery services can be established in the community to improve their perceived social

experience and perceived economic experience, thereby increasing their satisfaction with online shopping after-sales service. Finally, an information filtering system can be established to prevent fraud and recommend effective promotional information, enhancing the perceived value of the silver-haired generation and thus increasing their customer satisfaction.

4.3. Boost customer satisfaction among the silver-haired generation

According to the previous findings, in order to promote customers' purchase intention, enterprises can start by enhancing customer satisfaction. In addition to strengthening interaction willingness and perceived value, enterprises can organize brand activities, often ask for customer opinions, optimize services, and thus increase customer satisfaction. They can also cooperate with government departments that dispatch community workers to help silver-haired customers screen shopping information, solve after-sales problems, and improve relevant processing methods, thereby enhancing customer satisfaction and further increasing purchase intention. At the same time, enterprises can improve the silver-haired user profile to provide more accurate positioning and personalized services [11].

5. Conclusion

This paper constructed a model to analyze the effect of interaction willingness and perceived value of silver-haired customers on their purchase intention, with customer satisfaction as a mediator. By validating hypotheses, the conclusion is drawn: In the context of online shopping, the interaction willingness and perceived value of silver-haired customers on online platforms have a positive effect on their satisfaction; the satisfaction of silver-haired customers has a positive mediating effect on their purchase intention. In other words, in the era of online shopping, the enhanced interaction willingness and perceived value of silver-haired customers can promote their satisfaction, and thus generate purchase intention. In the future, further research can be conducted on the factors affecting the interaction willingness and perceived value of silver-haired customers, exploring ways to enhance these two aspects, and deepening the research on silver-haired customers.

References

[1] Duan, Y. Z., & Lyu, X. (2020). Exploring the Causes and Countermeasures of Mobile Phone Dependence Behavior among the Silver-haired Generation. Media, (9), 91-93.
[2] Zhang, M. M. (2012). Relations of Shopping Site's Service Quality, Customer Trust, and Customer Satisfaction. Master's Thesis, Hebei University of Economics and Business.
[3] Huang, L. (2025). From the Perceived Value Theory, a Study on the Influence of E-commerce Live Broadcasting on the Purchase Intention of Urban Young Elderly. Master's Thesis, Communication University of Zhejiang.
[4] Zuo, W. M., Wang, X., & Fan, C. (2014). The Relationship Between Online Reputation and Purchase Intention Based on Social Capital in the Context of Social Commerce. Nankai Business Review, 17(4), 140-150+160.
[5] Ao, F. F. (2024). The New Shopping Concept of Chinese Elderly People in the Digital Era: Analysis Based on "2022 'Silver-Haired Group' Consumption Trends Report". In Guang Dong Mechanical Electrical Polytechnic (Eds.).
[6] Deng, J. (2025-07-22). The Hot Silver-haired Consumer Market Attracts Capital to Accelerate Its Growth. Economic Information Daily, 8.
[7] Yin, X. C., Li, Y. C., Gao, R., Li, J. Q., & Wang, H. W. (2023). Understanding the Purchase Decisions of Silver Consumers in Short-Form Video Platforms from the Perspective of Existence, Relatedness, and Growth Needs. Behavioral Sciences, 13(12), 1011.
[8] Kim, S., Ahmed, N. I., Rahman, M. M., Khan, Y., Sikder, M., Hemel, H., & Azad, N. M. N. (2025). Voice Commerce (V-Commerce): Exploring the Integration of Voice Assistants in Online Shopping. International Journal of Grid Computing & Applications, 16(2), 25-36.

[9]   Chen, X. Y. (2023). Research on Voice Control and Analysis Technology for the Elderly at Home (Eds.).

[10] Zhao, L. X. (2024-09-02). The Aging-friendly Adaptation of Micro-short Drama Enables the Silver-Haired Generation to Enjoy a Digital Life. People's Posts and Telecommunications News, 3.

[11] Chen, X. R. (2025). Research on the Impact of User Profiling and AI Security on Service Innovation in the Silver Economy. Economics & Management Review, 6(1).