

The Influence of Internet Sharing Behavior on the Willingness of Middle-Aged and Elderly People to Buy Healthcare Products

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Abstract

The purchasing decisions of middle-aged and elderly individuals have been deeply influenced by Internet sharing, as a means of information, dissemination and social interaction. Data was collected through a questionnaire survey, and empirical testing was conducted using a multiple linear regression model. In accordance with the study, Internet sharing behavior (comment authenticity, transmission professionalism, product homogeneity) was found to have a significant positive effect on the willingness of middle-aged and elderly people to purchase healthcare products. Based on this, management recommendations were put forward for Internet sharing platforms and content creators.

Keywords: *Internet Sharing Behavior, Purchasing Intentions, Internet Social Platforms, Elderly Group.*

Introduction

Knowledge sharing is an altruistic behavior that has been present in the world since time immemorial. At present, knowledge sharing has become easier through online platforms. Internet sharing is the aspect, which refers to the exchange of information through online means. A behavior that promotes knowledge and information sharing, and searching via the internet, is gaining significant research attention. Although, when the internet came into existence, a specific section of people already had knowledge and information sharing privileges, it was its heavy commercialization that made the internet available to everyone. At present, internet, mobile technology and computer have penetrated into all societal levels, thereby ensuring maximum demographic beneficiaries. Contextually, consumer electronics, internet and mobile technology are becoming more and more popular among elderly people (those over 65). Since 2013, the percentage of older persons who own a smartphone has increased significantly, from 18% to 83% (aged 50–64), and 61% (aged 65 and beyond) in 2021 (Faverio, 2022). As technology adoption among elderly people grows, exposure to the internet is also becoming a significant aspect among middle-aged and elderly people (Diniz et al., 2020). Consequently, the Internet is becoming more pervasive and elderly people are becoming Internet users (He et al., 2022). Nangsangna and Vroom (2019) have found that middle-aged and older people are increasingly relying on the Internet for health-related information recommendations, and reviews of healthcare products are some of the common usage areas of internet among the elderly people. The study by Von Helversen et al. (2018) puts forth that reviews and comments have a significant effect on the preference of elderly people while purchasing something from the internet. Similarly, homogeneity has been regarded as an important factor that makes internet products coherent and correlated. Smith and Keller (2021) opine that product and brand homogeneity increases product rating, thereby enhancing consumers' intention to purchase. Furthermore, Lv et al. (2020) have discovered that purchasing behavior can be affected by information dissemination. Now, can these factors also affect elderly-people's purchase behavior as well?

The primary aim of this research is to examine certain factors that may affect the perceptions as well as purchasing behavior of middle-aged and elderly people, when they purchase healthcare products through the internet. Therefore, the following objectives are the primary scope of this study:

To assess that the authenticity of comments in Internet sharing behavior positively affects the purchasing

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intentions of middle-aged and elderly people towards healthcare products.

To examine that the professionalism of information dissemination in Internet sharing behavior positively affects the purchasing intentions of middle-aged and elderly people towards healthcare products.

To investigate that the homogeneity of products in Internet sharing behavior positively affects the purchasing intentions of middle-aged and elderly individuals towards healthcare products.

Literature Review and Research Hypotheses

Middle-aged and Elderly People to Purchase Healthcare Products

Middle-aged and elderly people buy healthcare products for health awareness, social support, and specific health benefits. Due to a growing global elderly population, demand for elderly healthcare products is rising, requiring a comprehensive evaluation framework to aid decision-making (Chen et al., 2022; Yang et al., 2020). Several factors that include sociodemographic traits, brand perception, and accessibility, affect middle-aged and older people's willingness to buy healthcare products. Additionally, according to Wang et al. (2020), when, in China, urban dwellers frequently buy home healthcare devices like glucometers and hemopiezometers, it is observed that demographic factors such as age, education, and income levels have a larger impact on what people decide and are willing to buy. According to the research conducted by He et al. (2023), in a nation like Hong Kong, the inclination towards self-efficacy and the preference for formal care contribute to a heightened interest in private long-term care insurance, though cognitive difficulties and lack of familiarity with the market serve as obstacles to obtaining such insurance. The same kind of conclusion is derived from the study conducted in Malaysia, which addressed that the monthly expenditure of old people on healthcare products is influenced by gender, urbanization, education, income and the number of chronic illnesses that are the common point of purchase (Lee, 2008). Healthcare facilities that are accessible to an individual are a significant factor in determining the utilization of outpatient services, and the likelihood of shopping in pharmacies, as demonstrated in Taiwan (Yang et al., 2015). As argued by Moudud-Ul-Huq et al. (2021), a positive brand image results in improving the experience recognition and purchase behavior however technological anxiety and resistance to change are barriers. In their study, Hsieh et al. (2017) noted that individuals in Taiwan, in the middle-aged and elderly category, wanted to engage in the self-health management through the use of the personal health information systems. This is primarily due to the perceived benefits and perceived usefulness they have in the utilization of such systems. Similarly, Webster et al. (2014) point out that the factors affecting the middle-aged and elderly people's decision to purchase healthcare products are the perceived needs, the socio-demographic characteristics, and the market factors. However, it is important to consider the quality and reliability of the content in this case. If high quality, authentic and relevant content are chosen, then middle-aged and elderly individuals may be attracted, thereby increasing their trust and potential to influence their buying behavior (Wang et al., 2023). Therefore, it is noble to understand the purchasing intention of the middle-aged and elderly people using Internet sharing platforms to know the kind of shared content, the credibility and quality of the content, in order to comprehend their purchase decision (Law et al., 2016).

In some parts of the literature, it is observed that the purchase intentions of middle and old-aged people are influenced and impacted by various factors that include psychological characteristics, product knowledge, involvement during purchase, perceived risk, and social interactions. However, some studies found that factors like competition, self-assurance, game playability, artistry, and sociability can increase middle-aged and older mobile game players' purchase intentions for virtual items, while entertainment and mobility can decrease it (Kao & Chiang, 2015). The most important variables that are leading, in terms of purchase intention, are analyzed by Joung (2023), as attitudes, subjective norms and perceived behavior, on the basis of the theory of planned behavior. Yet, when in the context of purchasing behavior among middle-aged and elderly people, they may also be more inclined to trust and be drawn to information that is genuine and relatable (Princes et al., 2020). As a result of these findings from the literature, the content shared on social media platforms, particularly content featuring authentic, relatable images and real-time videos, may positively influence and impact the purchasing intentions of middle-aged and elderly people

(Li et al., 2022). Such visual content could more vividly illustrate the features and value of products, thereby more effectively sparking interest in purchasing.

Internet-Sharing Behavior

The concept of Internet user sharing behavior involves the active or passive dissemination of information, content, links, multimedia, and other resources among users or across social networks online, and influenced by various factors including social identity, personal transparency and social interaction (Feller et al., 2017). According to Li (2023), internet sharing is observed as reciprocal of prosocial behavior that helps to reduce transaction costs and fosters stable social bonds among users. This phenomenon is commonly facilitated through online platforms and social media, such as social networks, Microblog, blogs, and social sharing buttons (Heimbach & Hinz, 2018). On the other hand, purchasing willingness, also referred to as purchasing intention or shopping intention, denotes an individual or consumer's propensity or psychological disposition to engage in a purchasing action for a product or service under specific circumstances (Michalski, 2023). Sharing behavior also promotes cooperation among consumers, which reduces the transaction costs and fosters community bonds that are particularly valuable in internet marketing (Mu et al., 2012). Afor and Sahana (2022) argued that the Internet of Behavior leverages data from user sharing, to merge behavioral analysis with psychological insights, enhancing digital marketing strategies and customer service, while raising concerns about data privacy and security. Therefore, the sharing behavior of users on the internet has emerged as a powerful force shaping customer behavior, social interactions and technological developments, along with opportunities and challenges. Internet sharing behavior significantly impacts consumers' purchasing intentions in the digital age, with its influence extending across various dimensions.

The Authenticity of Comments in Internet Sharing Behavior

There are many user-sharing influences on consumer perception in the context of product authenticity that affect the purchasing intentions of middle-aged and elderly consumers (Li, 2023). According to Cao et al. (2022), the authenticity of the comment enhances trust value and perceived value, which greatly influence the purchasing intentions toward healthcare products, and it is also positively affected by middle-aged and elderly users' intentions to purchase. Similarly, the quality and consistency of comments on online platforms influences middle-aged and elderly consumers' purchasing intentions, and the quality and quantity of online comments impact consumer behavior, as seen in the context of hotel bookings, which can be extrapolated to healthcare products (Qi, 2021). Moreover, it is observed by Xu et al. (2021) that the expertise and authenticity of content shared by influencers, also play a significant role in building brand authenticity and purchase intention. However, the positive correlation between online comments and purchasing behavior is well-observed, with the quality and quantity of comments significantly affecting consumer behavior (Rui, 2022; Liao & Yang, 2012). Therefore, ensuring the authenticity of online comments is essential for influencing the purchasing intentions of middle-aged and elderly consumers toward healthcare products. Considering this, the hypothesis can be stated as:

H1: The authenticity of comments in Internet sharing behavior positively affects the purchasing intentions of middle-aged and elderly people toward health care products.

The Professionalism of Information Dissemination in Internet Sharing Behavior

Information dissemination professionalism in Internet sharing behavior, strongly influences middle-aged and elderly healthcare product purchases. It is because the stated demographic is increasingly using health-related social media (HRSM) and health maintenance-oriented WeChat official accounts (HM-WOAs) for self-protection, social interaction, and perceived usefulness and entertainment, which increases their participation and trust in these platforms (Cao et al., 2022; Xu et al., 2021). This concept is somewhat related to influencers on the platforms, as the professionalism of influencers in live commerce positively affects perceived value, which mediates the relationship between influencer characteristics and purchase intentions (Dong et al., 2023; Xu, 2023). This is further supported by Yang (2023), with the help of the S-O-R framework, which shows that professional information distribution can foster trust, which, in turn,

raises purchase intentions. Furthermore, the usefulness and adoption of electronic word-of-mouth (E-WOM) information, are determined and calculated by factors such as quality and credibility, which are often seen to be dependent on the professionalism of the source, and ultimately impact purchase intentions (Ebrahimi et al., 2021). The research of Zhong et al. (2022) revealed that that content quality shared on social media sites can influence consumers' purchase intention. Thus, this consistent finding across various contexts draws the hypothesis as:

H2: The professionalism of information dissemination in Internet sharing behavior has significant effect on purchasing intentions of middle-aged and elderly people towards healthcare products.

The Homogeneity of Products in Internet Sharing Behavior

Product homogeneity refers to the extent to which products are similar to characteristics, quality or event usage. Homogeneity of products, whether they are from the same or different brands, has been one of the major strategies used by brands in e-commerce platforms. Homogeneous services are more standardized and less customizable, and are better for e-commerce. Perceived homogeneity in online shopping reduces perceived risk, thereby increasing online purchase intention (Li et al., 2022). This is beneficial mainly for middle-aged and elderly consumers, who are facing barriers such as perceived risk and usability difficulties when adopting new technologies (Xie et al., 2020). Moreover, Smith and Keller (2021) put forth that homogeneity polarizes experience of the buyer, indicating a positive attitude towards suggested products within an e-commerce platform. Homogeneous products are better for e-commerce platforms when compared with heterogeneous products, which carry high levels of uncertainty and perceived risk, affecting consumer willingness to purchase (Tang & Zhu, 2020; Wu et al., 2019). Huang et al. (2022) mentioned that when searching for online products, similar products that have perceived homogeneity, should attract more attention. Overall, this role of homogeneity of products in healthcare product purchase behavior can be determined by the following hypothesis:

H3: The homogeneity of products in Internet sharing behavior positively affects the purchasing intentions of middle-aged and elderly individuals toward healthcare products.

Research Gap

Despite of the existing research on consumer behavior, and the adoption of healthcare products among middle-aged and elderly populations, there is a notable gap in understanding the specific role that internet sharing behavior plays in influencing their purchasing decisions. Contrary to this, many pieces of literature have focused on traditional factors, ignoring the dynamics of internet usage in the Middle East, with the current context of this digital world. So, addressing these research gaps will help to understand how internet sharing behavior affects the healthcare product purchase intentions of middle-aged and elderly individuals, and can help to develop demographic-specific digital tools, improve health communication, and inform targeted marketing strategies.

Model Design

The authenticity, professionalism, and homogeneity of user sharing behavior constitute the independent variables in this study, which are examined to determine if they have a significant positive impact on purchasing intention.

Questionnaire Design

The survey is designed to capture the experiences of the middle-aged and elderly groups, who have engaged in social media shopping in January 2024. The survey instrument consisted of items regarding authenticity of comments, professionalism of information dissemination, homogeneity of products, and the intention to purchase. These were the primary constructs chosen in this study; therefore, items were related to these four major factors. The professionalism of content sharing has been evaluated based on the expertise and background of the commenters. The homogeneity of products has been measured through the help of

consumers' preference for similar products. Furthermore, the measurement of purchase intention includes evaluations by consumers about the authenticity, professionalism, and influence on purchase decision-making.

Distribution and Collection of Questionnaires

The survey is aimed at the middle-aged and elderly groups, who engaged in social media shopping in January 2024. This group primarily consists of individuals aged 50 years and above, with a varied mix of genders, educational levels, and digital literacy. They may be either beginners in digital skills or seasoned users with immense knowledge about social media usage.

To guarantee that the questionnaire survey on the influence of Internet sharing behavior on the purchasing intentions of middle-aged and elderly people, includes a sufficient number of participants, the questionnaire was distributed using various methods. For instance, online distribution involved sharing the questionnaire links on social media platforms (e.g., WeChat, QQ groups) to the elderly community, with encouragement for active participation. Meanwhile, some middle-aged and elderly people also received the questionnaire link via email. During the distribution, the anonymity and confidentiality of the questionnaire were highlighted to alleviate concerns and boost the response rate. Besides, the requirements for completing the questionnaire and the deadline were clearly communicated to ensure the data's accuracy and completeness.

During the collection phase, each questionnaire was meticulously reviewed and filtered to verify the authenticity and validity of the data. Questionnaires that were incomplete or contained evident errors were either removed or supplemented. After a period of distribution and collection, 315 questionnaires were successfully gathered, with 304 valid questionnaires, resulting in a questionnaire collection rate of 96.51%.

In summary, the distribution and collection of the questionnaire was successful, yielding a sufficient number of valid questionnaires, which establishes a solid foundation for subsequent data analysis and research.

Empirical Results and Analysis

Descriptive Statistical Analysis

Descriptive statistical analysis of demographic data from a questionnaire, is a standard approach in market research and academic investigations. It entails summarizing the fundamental information gathered from the questionnaire to uncover the sample's traits, distribution trends, and any discernible disparities. This research employed SPSS 26 to perform statistical analysis on the questionnaire's basic demographic data, with the findings displayed in Table 1.

Table 1. Summary of Demographic Characteristics of Respondents

Variable	Category	Sample Size	Percentage (%)
Gender	Male	158	52.00
	Female	146	48.00
Age	<50 years old	125	41.10
	51-60 years old	78	25.70
	61-70 years old	52	17.10
	71-80 years old	43	14.10
	>80 years old	6	2.00
Occupation	Ordinary wage earners or office workers	154	50.70
	Entrepreneurs	18	5.90
	Corporate executives	18	5.90
	Freelancers	51	16.80
	Retirees at home	63	20.70

Educational background	High school and below	134	44.10
	Associate degree	105	34.50
	Bachelor's degree	47	15.50
	Master's degree	11	3.60
	PhD or above	7	2.30
Monthly income	<3,000 yuan	110	36.20
	3,000-5,000 yuan	127	41.80
	5,001-8,000 yuan	38	12.50
	8,001-15,000 yuan	17	5.60
	>15,000 yuan	12	3.90

(Source: By author)

In accordance with Table 1, the gender distribution is relatively even, with males making up 52% and females 48%. The age distribution is predominantly under 50, with 25.7% aged 51-60, 17.1% aged 61-70, 14.1% aged 71-80, and 2% aged over 80. Professionally, the sample is primarily composed of the general working class or salaried workers, with entrepreneurs at 5.9%, corporate executives at 5.9%, freelancers at 16.8%, and retirees at 20.7%. In terms of education, the largest group consists of those with high school or below/associate degrees, making up nearly 80% of the total sample, while those with a bachelor's degree account for 15.5%, those with a master's degree for 3.6%, and those with a doctoral degree or higher for 2.3%. Regarding monthly income, 36.2% earn less than 3,000 yuan, 41.8% earn between 3,001 and 5,000 yuan, 12.5% earn between 5,001 and 8,000 yuan, 5.6% earn between 8,001 and 15,000 yuan, and only 3.9% earn more than 15,000 yuan.

Reliability and Validity Analysis

Reliability and Validity Test of Internet Sharing Behavior

In general, a reliability coefficient greater than 0.8 indicates excellent reliability of the scale, while a value between 0.7 and 0.8 suggests acceptable reliability.

Table 2. Reliability Test of the Internet Sharing Behavior Scale

Item	Mean	Standard Deviation	CITC	Cronbach's Alpha after Item Deletion	Scale Reliability
Q21	3.29	1.155	0.706	0.927	0.933
Q22	3.22	1.195	0.748	0.925	
Q23	3.17	1.178	0.721	0.926	
Q24	3.30	1.131	0.713	0.927	
Q25	3.24	1.145	0.677	0.928	
Q26	3.30	1.143	0.671	0.928	
Q27	3.32	1.166	0.694	0.927	
Q28	3.43	1.167	0.706	0.927	
Q29	3.35	1.164	0.698	0.927	
Q30	3.37	1.212	0.777	0.924	
Q31	3.42	1.166	0.663	0.929	
Q32	3.37	1.170	0.682	0.928	

(Source: By author)

Table 2 reveals that the Cronbach's alpha coefficients for all 12 items in the questionnaire exceed 0.7, with the overall scale reliability reaching 0.933, both surpassing the threshold of 0.7. Additionally, the Corrected Item-Total Correlation (CITC) for each item exceeds 0.3, suggesting that the internal consistency of the scale is satisfactory, thereby confirming the robustness of the survey questionnaire.

To assess the structural validity of the survey questionnaire, an exploratory factor analysis (EFA) was conducted using the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity. The KMO value for the EFA of internet sharing behavior is 0.957, and the chi-square value from Bartlett's test is 2,057.850, with a p-value that is significantly less than 0.001. This indicates that the scale is appropriate for EFA. The detailed results of this analysis are presented in Table 3.

Table 3. Factor Analysis

Item	Factor 1	Factor 2	Factor 3	Eigenvalue	Explained Variance (%)
Q21	0.710			2.926	24.387
Q22	0.773				
Q23	0.743				
Q24	0.643				
Q25	0.763				
Q26		0.693		2.687	22.396
Q27		0.796			
Q28		0.631			
Q29			0.603	2.542	21.184
Q30			0.656		
Q31			0.849		
Q32			0.662		
KMO and Bartlett's Test		KMO Test			0.957
		Bartlett's Test	Approximate Chi-Square	2057.850	
			Degrees of Freedom	66	
			Significance	0.000	

(Source: By author)

Principal component analysis was applied to the 12 items of the Internet behavior scale, yielding a total eigenvalue for the three factors that surpasses 1, and the cumulative variance explained by these factors exceeds 50% of the minimum threshold, indicating suitability. The item fit aligns precisely with the theoretical dimensions, allowing for a division into three distinct dimensions: comment authenticity, dissemination professionalism, and product homogeneity. Consequently, the scale possesses adequate structural validity and is suitable for the project combination criteria established for this study.

Reliability and Validity Test of Middle-Aged and Elderly Consumers' Purchasing Intentions

Table 4 demonstrates that the Cronbach's alpha coefficients for all eight items in the scale, assessing the purchasing intentions of middle-aged and elderly people surpass 0.7, with the overall scale reliability reaching 0.895, both exceeding the threshold of 0.7. Furthermore, the Corrected Item-Total Correlation (CITC) for each item exceeds 0.3, suggesting strong internal consistency within the scale. Consequently, the scale assessing purchasing intentions among middle-aged and elderly people exhibits strong reliability, and the questionnaire results are deemed highly dependable.

Table 4. Reliability Test of the Purchasing Intention Scale for Middle-Aged and Elderly People

Item	Mean	Standard Deviation	CITC	Cronbach's Alpha after Item Deletion	Scale Reliability
Q6	3.21	1.168	0.609	0.888	0.895
Q7	3.30	1.172	0.712	0.879	
Q8	3.25	1.204	0.644	0.885	

Q9	3.36	1.227	0.724	0.877
Q10	3.32	1.216	0.700	0.880
Q11	3.31	1.201	0.722	0.878
Q12	3.35	1.192	0.629	0.886
Q13	3.41	1.182	0.661	0.883

(Source: By author)

Table 5 reveals that the exploratory factor analysis for the purchasing intentions of middle-aged and elderly people has a Kaiser-Meyer-Olkin (KMO) value of 0.918, and the chi-square value from Bartlett's test of sphericity is 1,133.527, with a p-value that is significantly less than 0.001. This signifies that the scale is appropriate for exploratory factor analysis.

Table 5. Validity Test of the Purchasing Intention Scale for Middle-Aged and Elderly People

Item	Factor 1	Factor 2	Factor 3
Q6	0.700	4.623	57.784
Q7	0.791		
Q8	0.734		
Q9	0.800		
Q10	0.782		
Q11	0.799		
Q12	0.719		
Q13	0.748		
KMO and Bartlett's Test	KMO Test		0.918
	Bartlett's Test	Approximate Chi-Square	1133.527
		Degrees of Freedom	28
		Significance	0.000

(Source: By author)

Principal component analysis was applied to the 8 items of the scale assessing the purchasing intentions of middle-aged and elderly people, yielding a total eigenvalue for a single factor that exceeds 1, and the cumulative variance explained by this factor surpassing 50% of the minimum threshold, which is considered appropriate. The item fit aligns precisely with the theoretical dimensions, allowing for a single dimension: purchasing intentions of middle-aged and elderly people. Consequently, the scale possesses adequate structural validity, and is suitable for the item combination criteria established for this study.

Correlation Analysis Test

Using the mean values of the items under each variable as numerical indicators for the variable, a correlation analysis was conducted on the six variables: purchasing intention of middle-aged and elderly people (Y), comment authenticity (X1), dissemination professionalism (X2), product homogeneity (X3), perceived value (M1), and perceived trust (M2). Pearson correlation coefficients were employed to represent the strength of the correlation. The analysis results are presented in Table 6.

Table 6. Results of the Correlation Analysis Test

	Y	X1	X2	X3
Purchasing intention of middle-aged and elderly people (Y)	1.000			
Comment authenticity (X1)	0.216**	1.000		
Dissemination	0.203**	0.186**	1.000	

professionalism (X2)				
Product homogeneity (X3)	0.204**	0.234**	0.147**	1.000

(Source: By author)

The correlation analysis in Table 6 reveals that comment authenticity, dissemination professionalism, and product homogeneity are all significantly correlated with the purchasing intentions of middle-aged and elderly people, with respective correlation coefficients of 0.216, 0.203, and 0.204. Furthermore, the p-values for all these correlations are below 0.01, confirming a significant positive relationship between these variables and the purchasing intentions of the middle-aged and elderly demographic.

Regression Analysis Test

Model 1 in Table 7 reveals an F-value of 1.148 ($p=0.335 > 0.05$), suggesting that the model lacks significance, and therefore, indicates no significant correlation between demographic variables and the purchasing intention for healthcare products among middle-aged and elderly people. When employing comment authenticity, dissemination professionalism, and product homogeneity as independent variables, and the purchasing intention for healthcare products among middle-aged and elderly people as the dependent variable for multiple linear regression analysis, Model 2 in Table 4.13 demonstrates an adjusted R-squared value of 0.755, implying that the combined influence of these three dimensions can account for 75.5% of the variance in the purchasing intention for healthcare products among middle-aged and elderly people. The model passes the F-test ($F=117.881$, $p=0.000 < 0.001$), confirming that comment authenticity, dissemination professionalism, and product homogeneity exert a significant impact on the purchasing intention for healthcare products among middle-aged and elderly people.

Table 7. Regression Results of Each Dimension of Internet Sharing Behavior on the Purchasing Intention of Healthcare Products among Middle-Aged and Elderly People

Variables	Model 1			Model 2		
	β	T	P	β	T	P
Comment authenticity				0.281***	4.967	0.000
Dissemination Professionalism				0.325***	7.242	0.000
Product homogeneity				0.290***	5.692	0.000
R ²	0.019			0.762		
Adjust R ²	0.002			0.755		
F	1.148		0.335	117.881***		0.000

Dependent variable: Willingness of middle-aged and elderly people to purchase healthcare products

Note: * represents significance $P < 0.05$, * * represents significance $P < 0.01$, * * * represents significance $P < 0.001$

(Source: By author)

The table reveals that the p-values for each independent variable are all below 0.001, signifying that comment authenticity, dissemination professionalism, and product homogeneity exert a significant impact on the purchasing intentions of middle-aged and elderly people. The regression coefficient for comment authenticity is 0.281 ($t=4.967$, $p<0.001$), thus suggesting one unit of increase on the comment authenticity will lead to 0.281 times increase in purchase intention. Therefore, a significant positive effect on the purchasing intentions of middle-aged and elderly people can be validated from comment authenticity. In this regard, Hypothesis H1 should be accepted. Similarly, the regression coefficient for dissemination professionalism is 0.325 ($t=7.242$, $p<0.001$), demonstrating a significant positive effect on the purchasing intentions of middle-aged and elderly people. This confirms Hypothesis H2. Lastly, the regression coefficient for product homogeneity is 0.290 ($t=5.692$, $p<0.001$), suggesting a significant positive effect on

the purchasing intentions of middle-aged and elderly people, thereby indicating H3 is also supportive.

Discussion

The findings from this study validate that comment authenticity, dissemination professionalism and product homogeneity have significant effects on elderly people's purchase behavior. The authenticity of comments significantly influences the purchasing intentions of middle-aged and elderly people towards healthcare products. This implies that when the comments shared on the internet are genuine and trustworthy, they can affect positively. The purchase decisions of middle-aged and elderly consumers place high importance on online information, such as comments. This finding is in line with the study by Lee et al. (2020), where the results found that positive comments affect trust and purchase intention. Similarly, Roy et al. (2020) also stated that positive word of mouth has significantly increased purchase intention among senior citizens. Both of these studies have results, which align with this study, hence justifying the obtained results. The results obtained from empirical findings align with existing literature, which emphasizes perceived credibility and authenticity in online reviews. This suggests that online authentic internet comments are crucial determinants of consumer trust and subsequent purchasing behavior. Hence, reliable sources of information found on the internet increases consumer purchase intention.

The examination of the coefficients of the regression analysis brings out the fact that professionalism dissemination has a highly significant, positive influence on the sample of middle-aged and elderly consumers. The effect size is moderately high, which suggests that an increase in professionalism in information dissemination would be more likely to increase consumer purchase intention. This concurs with the fact that information, which is professionally disseminated, carries a lot of influence when it comes to the decisions of purchasing among the senior age group. Professionalism in information dissemination encompasses the accuracy, clarity, and comprehensiveness of the information shared. Since consumers of middle-aged and elderly groups need accurate and clear information, as the products are healthcare products, the level of professional information becomes competitive. This finding is similar to that of Mun et al. (2013), where the authors also found that professional and well-structured information can reduce uncertainty, thereby improving the perceived value of products, especially in the health sector. The authors also suggested that health-related information carries risk, thus professionalism in information dissemination becomes an essential aspect. Similarly, this study also found that professionalism in information dissemination has increased purchase intention by reducing risks and uncertainty, and enhancing the perceived value of products.

The results also suggested that product homogeneity has a significant positive effect on purchasing intentions. Homogeneity, in this regard, refers to the extent to which consumers prefer goods from a similar category. This finding is in line with Zhou & Tong's (2022) and López et al.'s (2017) studies, where they also found homogeneity is a factor that affects trust and subsequently purchase intention. Here, middle-aged and elderly consumers tend to stick to similar quality, benefits and characteristics of products, as they trust homogeneity more in their search. This implies that the higher the similarity in product recommendations, the higher the purchase intention will be for old people. This procurement pattern may be beneficial to customers, who may prefer products that are always recommended, or products which have standard quality as all the other similar products. It can be said that older generation Middle Eastern people are drawn towards products that have been routinely recommended, or those products that possess similar characteristics, as this creates confidence in the purchase.

Conclusions and Policy Recommendations

Conclusions

Drawing from empirical findings, this research examines consumer behavior of middle-aged and elderly people in the context of healthcare products. This study also uses internet sharing behavior to show that it enhances the purchase intentions of middle-aged and elderly people towards healthcare products. The results have shown that professionalism of the comment, appropriateness of the sharing behavior, and the extent of homogeneity of the product do affect the middle-aged and elderly peoples' willingness to

purchase healthcare products on internet sharing behavior. Overall, this study has highlighted the importance of understanding, and addressing the specific preferences and behaviors of middle-aged and elderly consumers in the healthcare product market. Therefore, healthcare market stakeholders need to ensure that elderly people's internet sharing behavior can be fully capitalized, when comments authenticity, product homogeneity and professionalism in information dissemination are effectively strategized. These will ensure that elderly and middle-aged people are having a positive experience while searching for their healthcare products. In other words, by leveraging positive internet sharing behavior, healthcare products businesses can effectively enhance their marketing strategies and strengthen consumer relationships, ultimately boosting their market presence and sales.

Policy Recommendations

Based on Internet Sharing Platforms: 1) To ensure the trustworthiness of comments, platforms should prioritise highlighting the measures taken to ensure the accuracy and truthfulness of user-posted material. This would effectively decrease the dissemination of false information to the public. If fake comments are identified, they have to be deleted immediately, and punishment must be sought to protect the platform's reputation and the people's liberties. 2) Platforms that need to deliver material should enhance the professional level of dissemination of information. Recognizing that middle-aged and elderly people usually have limited knowledge about specific illnesses, they believe only in what is said by professionals or what they read from credible sources. Consequently, platforms should improve the level of services and official sounding of the materials provided, inviting individuals or organizations, specialized in the subject of healthcare, to share knowledge and provide accurate and comprehensive information on the given topic. 3) Platforms should not be populated by similar products. Though both the middle-aged and elderly people might be in need of some of the equally used healthcare products, they do differ in terms of their health conditions, preferences, etc. To achieve this, most of the platforms should be in a position to provide the consumer with much more product choices, in order to be able to meet his/her needs. They can also use the abilities to make recommendations according to the customer's browsing and purchasing history, to offer the healthcare products that the user might consider to be the best.

Based on Creators of Internet Sharing: In this context, it must also be pointed out that for creators, authenticity is the ultimate value. It should follow the principle of accuracy, relevance, comprehensiveness, timeliness, and should be free from misrepresentation. Moreover, creators need to focus on the aspects like differentiation and customization of the products. Closely associated with the vast range of existing healthcare products, many of which are quite similar, to capture the attention of the target consumers, or adequately increase their purchase intention toward the featured products, the creators must correctly grasp the various distinguishing factors of several products, ascertain the Unique Selling Attributes, and effectively communicate those aspects back to the intended users.

References

- Afor, M. E., & Sahana, S. (2022). The Internet of Behaviour (IOB) and Its Significant Impact on Digital Marketing. 2022 International Conference on Computing, Communication, and Intelligent Systems (ICCCIS). <https://doi.org/10.1109/icccis56430.2022.10037598>
- Cao, C., Li, D., Xu, Q., & Shao, X. (2022). Motivational Influences Affecting Middle-Aged and Elderly Users' Participation Intention in Health-Related Social Media. *International Journal of Environmental Research and Public Health*, 19(18), 11240. <https://doi.org/10.3390/ijerph191811240>
- Chen, Y., Li, L., Tan, Z., Ma, C., Wang, B., Guo, Q., & Li, L. (2022). Effects of Social Support and Loneliness on the Irrational Consumption Tendencies of Healthcare Products among the Elderly: A Structural Equation Model. *International Journal of Environmental Research and Public Health*, 19(21), 14404. <https://doi.org/10.3390/ijerph192114404>
- Diniz, J. L., Moreira, A. C. A., Teixeira, I. X., Azevedo, S. G. V., Freitas, C. A. S. L., & Maranguape, I. C. (2020). Digital inclusion and Internet use among older adults in Brazil: a cross-sectional study. *Revista brasileira de enfermagem*, 73, e20200241. <https://doi.org/10.1590/0034-7167-2020-0241>
- Dong, W. W., Wang, Y. Q., & Qin, J. (2023). An empirical study on impulse consumption intention of livestreaming e-commerce: The mediating effect of flow experience and the moderating effect of time pressure. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.1019024>

- Ebrahimi, P., Hamza, K. A., Gorgenyi-Hegyes, E., Zarea, H., & Fekete-Farkas, M. (2021). Consumer Knowledge Sharing Behavior and Consumer Purchase Behavior: Evidence from E-Commerce and Online Retail in Hungary. *Sustainability*, 13(18), 10375. <https://doi.org/10.3390/su131810375>
- Faverio, M. (2022). Share of those 65 and older who are tech users has grown in the past decade. Pew Research Center, 13(7). <https://www.pewresearch.org/short-reads/2022/01/13/share-of-those-65-and-older-who-are-tech-users-has-grown-in-the-past-decade/>
- Feller, J., Gleasure, R., & Treacy, S. (2017). Information Sharing and User Behavior in Internet-enabled Peer-to-peer Lending Systems: An Empirical Study. *JIT. Journal of Information Technology*, 32(2), 127–146. <https://doi.org/10.1057/jit.2016.1>
- He, A. J., Qian, J., Chan, W. S., & Chou, K. L. (2023). Willingness to Purchase Hypothetical Private Long-Term Care Insurance Plans in a Super-ageing Society: Evidence from Hong Kong. *Journal of Aging & Social Policy*, 35(6), 780–805. <https://doi.org/10.1080/08959420.2023.2182084>
- He, W., Cao, L., Liu, R., Wu, Y., & Zhang, W. (2022). Factors associated with internet use and health information technology use among older people with multi-morbidity in the United States: findings from the National Health Interview Survey 2018. *BMC Geriatrics*, 22(1), 733. <https://bmgeriatr.biomedcentral.com/articles/10.1186/s12877-022-03410-y>
- Heimbach, I., & Hinz, O. (2018). The Impact of Sharing Mechanism Design on Content Sharing in Online Social Networks. *Information Systems Research*, 29(3), 592–611. <https://doi.org/10.1287/isre.2017.0738>
- Hsieh, P. J., Lai, H. M., Ku, H. C., & Ku, W. T. (2017). Understanding Middle-Aged and Elderly Taiwanese People's Acceptance of the Personal Health Information System for Self-health Management. In *Lecture notes in computer science* (pp. 393–403). https://doi.org/10.1007/978-3-319-58536-9_31
- Huang, B., Juaneda, C., Sénécal, S., & Léger, P. M. (2021). “Now You See Me”: the attention-grabbing effect of product similarity and proximity in online shopping. *Journal of Interactive Marketing*, 54(1), 1–10. <https://doi.org/10.1016/j.intmar.2020.08.004>
- Joung, Y. S. (2023). A Study of Meal Kits Purchase Intention based on Theory of Planned Behavior (TPB) Focused on Middle Aged. *Oesik Gyeongyeong Yeongu*, 26(1), 181–203. <https://doi.org/10.47584/jfm.2023.26.1.181>
- Kao, C. Y., & Chiang, C. (2015). Research on Virtual Item Purchase Intention in Taking Part in Mobile Device Games: Taking the Middle and Old Aged Players for Example. In *Lecture notes in computer science* (pp. 324–334). https://doi.org/10.1007/978-3-319-20895-4_30
- Law, M., Kwok, R. C. W., & Ng, M. (2016). An extended online purchase intention model for middle-aged online users. *Electronic Commerce Research and Applications*, 20, 132–146. <https://doi.org/10.1016/j.elerap.2016.10.005>
- Lee, S. Y. (2008, January 1). Consumption of Health Products By Older Consumers In Peninsular Malaysia. <http://psasir.upm.edu.my/id/eprint/4981/>
- Lee, Y. I., Phua, J., & Wu, T. Y. (2020). Marketing a health Brand on Facebook: Effects of reaction icons and user comments on brand attitude, trust, purchase intention, and eWOM intention. *Health Marketing Quarterly*, 37(2), 138–154. <https://doi.org/10.1080/07359683.2020.1754049>
- Li, D., Lv, J., Jing, L., Cao, C., & Shi, Y. (2022). Exploring the Intention of Middle-Aged and Elderly Consumers to Participate in Inclusive Medical Insurance. *IEEE Access*, 10, 71398–71413. <https://doi.org/10.1109/access.2022.3187711>
- Li, Y. (2023). The Influence of User Sharing Behavior on Consumer Purchasing Behavior in social media. *Journal of Education, Humanities and Social Sciences*, 13, 190–195. <https://doi.org/10.54097/ehss.v13i.7893>
- Liao, J., & Yang, J. (2012). The Influence of Electronic Word-of-Mouth Authenticity on Customers' Behavior. <https://doi.org/10.1109/begin.2012.117>
- López, M., Sicilia, M., & Moyeda-Carabaza, A. A. (2017). Creating identification with brand communities on Twitter: The balance between need for affiliation and need for uniqueness. *Internet Research*, 27(1), 21–51. <https://doi.org/10.1108/IntR-12-2013-0258>
- Lv, J., Wang, T., Wang, H., Yu, J., & Wang, Y. (2020). The impact of information dissemination on purchasing behavior in social e-commerce environment. *Frontiers of Computer Science*, 14(6). <https://doi.org/10.1007/s11704-019-8367-y>
- Michalski, R. (2023). The influence of product digital visual presentation on purchase willingness: effects of roundedness axes and degree. *Multimedia Tools and Applications*, 83(1), 2173–2202. <https://doi.org/10.1007/s11042-023-15786-z>
- Moudud-Ul-Huq, S., Swarna, R. S., & Sultana, M. (2021). Elderly and middle-aged intention to use m-health services: an empirical evidence from a developing country. *Journal of Enabling Technologies*, 15(1), 23–39. <https://doi.org/10.1108/jet-04-2020-0018>
- Mu, L., Yao, T., Cao, H. R., & Zheng, Q. (2012). Research on the Psychology Mechanism of Consumer Internet Sharing Behavior. <https://doi.org/10.1109/ijcss.2012.61>
- Mun, Y. Y., Yoon, J. J., Davis, J. M., & Lee, T. (2013). Untangling the antecedents of initial trust in Web-based health information: The roles of argument quality, source expertise, and user perceptions of information quality and risk. *Decision Support Systems*, 55(1), 284–295. <http://dx.doi.org/10.1016/j.dss.2013.01.029>
- Nangsangna, R. D., & Vroom, F. D. C. (2019). Factors influencing online health information seeking behaviour among patients in Kwahu West Municipal, Nkawkaw, Ghana. *Online Journal of Public Health Informatics*, 11(2). <https://doi.org/10.5210/ojphi.v11i2.10141>
- Princes, E., Manurung, A. H., So, I. G., & Abdinagoro, S. B. (2020). The Next Level of Purchase Intention. *Journal of Critical Reviews*, 7(16), 632–639. <http://www.jcreview.com/?mno=3725>
- Qi, Z. (2021). Analysis of the Effect of Online Reviews on Consumer Intention. 2(4), 90–98. [https://doi.org/10.6981/fem.202104_2\(4\).0013](https://doi.org/10.6981/fem.202104_2(4).0013)

- Roy, G., Basu, R., & Ray, S. (2020). Antecedents of Online Purchase Intention among Ageing Consumers. *Global Business Review*, 24(5), 1041–1057. <https://doi.org/10.1177/0972150920922010>
- Rui, F. (2022). An Empirical Study of the Relationship Between Online Comments and Users' Purchasing Behavior in the Social E-commerce. *Humanities and Social Sciences*, 10(1), 21. <https://doi.org/10.11648/j.hss.20221001.13>
- Smith, R. W., & Keller, K. L. (2021). If all their products seem the same, all the parts within a product seem the same too: How brand homogeneity polarizes product experiences. *International Journal of Research in Marketing*, 38(3), 698–714. <https://doi.org/10.1016/j.ijresmar.2020.11.001>
- Tang, Z., & Zhu, H. (2020). Nonlinear Dynamic Analysis of New Product Diffusion considering Consumer Heterogeneity. *Complexity*, 2020, 1–20. <https://doi.org/10.1155/2020/2915797>
- Von Helversen, B., Abramczuk, K., Kopeć, W., & Nielek, R. (2018). Influence of consumer reviews on online purchasing decisions in older and younger adults. *Decision Support Systems*, 113, 1–10. <https://doi.org/10.1016/j.dss.2018.05.006>
- Wang, C., Yan, J., Huang, L., & Cao, N. (2023). Helping middle-aged and elderly short-video creators attract followers: a mixed-methods study on Douyin users. *Information Technology & People*, 37(3), 1305–1333. <https://doi.org/10.1108/itp-03-2022-0203>
- Wang, D., Liu, S., Wu, J., & Lin, Q. (2020). Purchase and use of home healthcare devices for the elderly: a pilot study in Shanghai, China. *BMC Public Health*, 20(1). <https://doi.org/10.1186/s12889-020-08757-8>
- Webster, N. J., Antonucci, T. C., Yoon, C., McCullough, W. R., Fin, D. N., & Hartsell, D. L. (2014). Older adults as consumers: An examination of differences by birth cohort. <https://doi.org/10.7551/mitpress/9780262027670.003.0015>
- Wu, Y., Chen, H., & Wang, H. (2019). The Influence of Product Diversity on Consumers' Impulsive Purchase in Online Shopping Environment. *American Journal of Industrial and Business Management*, 09(03), 680–698. <https://doi.org/10.4236/ajibm.2019.93046>
- Xie, C., Jia, S., & He, C. (2020). An Empirical Study on the Factors Affecting Elderly Users' Continuance Intention of Shared Nurses. *Risk Management and Healthcare Policy*, 13, 1849–1860. <https://doi.org/10.2147/rmhp.s261827>
- Xu, J. (2023). Impacts of the Influencers' Characteristics on Purchase Intention: A Case of Chinese Live Commerce. *Geullobeol Yunghap Yeongu Hakoeji*, 2(1), 1–13. <https://doi.org/10.57199/jgcr.2023.2.1.1>
- Xu, L., Li, P., Hou, X., Yu, H., Tang, T., Liu, T., Xiang, S., Wu, X., & Huang, C. (2021). Middle-aged and elderly users' continuous usage intention of health maintenance-oriented WeChat official accounts: empirical study based on a hybrid model in China. *BMC Medical Informatics and Decision Making*, 21(1). <https://doi.org/10.1186/s12911-021-01625-4>
- Yang, J. (2023). Analysis of Consumer Behavior and Purchase Intentions Based On the “Oriental Selection Live” Phenomenon. *BCP Business & Management*, 38, 1–10. <https://doi.org/10.54691/bcpbm.v38i.3663>
- Yang, Z., Li, X., Garg, H., Peng, R., Wu, S., & Huang, L. (2020). Group Decision Algorithm for Aged Healthcare Product Purchase Under q-Rung Picture Normal Fuzzy Environment Using Heronian Mean Operator. *International Journal of Computational Intelligence Systems*, 13(1), 1176. <https://doi.org/10.2991/ijcis.d.200803.001>
- Zhong, Y., Zhang, Y., Luo, M., Wei, J., Liao, S., Tan, K. L., & Yap, S. S. N. (2022). I give discounts, I share information, I interact with viewers: a predictive analysis on factors enhancing college students' purchase intention in a live-streaming shopping environment. *Young Consumers*, 23(3), 449–467. <https://doi.org/10.1108/yc-08-2021-1367>
- Zhou, R., & Tong, L. (2022). A Study on the Influencing Factors of Consumers' Purchase Intention During Livestreaming e-Commerce: The Mediating Effect of Emotion. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.903023>