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Does Digital Inertia Matter? The Driver of Intentions in a Smart Senior Care Context

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Abstract

Aging is one of the trends of population, which may bring problems to the elderly individually, and financial, economic and social problems to the government. Therefore, how to solve or mitigate the impact of aging through the development of intelligent elderly services has become a major issue for the current government and academia. The purpose of this study is to explore the status and relationship of digital skills, attitude towards smart senior care service and behavioral intention of the elderly. The influence of digital inertia on the relationship between digital skills, attitudes and behavioral intention in the elderly. Data was collected by questionnaire survey and 403 valid samples were received. Findings show that positive impacts were confirmed among digital skills, attitude towards smart senior care service and behavioral intention of the elderly, while the moderating effect of digital inertia on those variables was not. Lastly, such a smart senior care service provider should gradually build a system of smart services, including hardware and software was suggested to the government departments, institutions of smart senior care service and follow-up studies.

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1. Introduction

According to the World Population Prospect 2022 released by the United Nations, the World's Population is expected to reach 8 billion on November 15, 2022, and is likely to grow to about 8.5 billion by 2030 and 9.7 billion by 2050. Among them, India and China, with 1.4 billion people at the end of 2022, have become the world's second largest population countries (Yen & Li, 2022). In the case of limited changes in other conditions, population growth often brings about the issue of elderly population dependency ratio (Old-age dependency ratio; ODR) refers to the ratio of the total number of elderly population to the total number of working-age population in a country/region (Global Times, 2022). From the perspective of traditional families, ODR can explain the proportion of each working population in a family that needs to support the elderly population. The higher the value, the greater the burden of the working population. From a social point of view, represents the proportion of the elderly population in a particular area that may need care and assistance, or the proportion that needs to plan and invest social resources to support this group of elderly people. Take China as an example, The ODR increased rapidly from 18.94% in 2010 to 29.53% in 2020, representing the proportion of the dependent elderly population, with a total growth of 55.9% in 10 years and an average annual growth of 5.59%. For example, compared with the United Nation (UN) estimate of 2030, the average annual growth of global ODR is 4.18%, China's population aging rate is higher.

The pension issue of aging population will increase the financial burden of the government (Tao, Wang, & Zhang, 2019) Diseases of the elderly may increase the medical burden (Ge et al., 2020; Global Times, 2022); Disability and unemployment of the elderly, reduced or no income, may lead to economic and social problems (Ge et al., 2020; Hu & Li, 2021; Tao et al., 2019; Zhang & Fang, 2021); With the aging of the elderly, they may lose their marriage, resulting in marriage and family problems (Mu & Lin, 2021; Wang, 2020b). On the whole, high ODR may bring family, marriage, financial, economic, medical and social problems. How to deal with these problems has become an important issue concerned by academic circles, government departments and pension

related institutions. In view of the above, it is suggested to develop a Smart senior Care service platform integrating supply and demand through scientific and technological means to deal with the needs of elderly people, such as catering, travel, shopping, medical treatment, learning, entertainment, home services and house repair (Global Times, 2022). However, this study lacks the definition of the categories and needs of the elderly, and there is still a gap in developing the theory of intelligent elderly care. Secondly, another study discusses the needs and countermeasures of intelligent elderly care, and obtains data through questionnaire survey. According to the analysis of this paper, the existing smart tool usage habits of retired respondents focus on leisure and entertainment, travel buying tickets and medical appointment, while the smart pension needs focus on travel purchasing and facility maintenance (Chen & Yen, 2022). However, this study lacks discussion on the knowledge and skills of using smart tools of the elderly, which are important and key factors for the elderly to adopt/accept smart care services. To clarify the influence of these factors on the use intention of the elderly will be conducive to the construction and operation of the intelligent pension service platform, highlighting the importance and urgency of this study. In summary, this study intends to explore the relevant factors affecting the adoption of intelligent pension service platform by the elderly. After referring to relevant literature, this study defined such problems as digital inertia, digital skills, attitude and desire for intelligent elderly care service, etc. Therefore, the purpose of this study is to explore the status and relationship between digital skills, attitude towards intelligent elderly care service and behavioral intention of the elderly. The influence of digital inertia on the relationships between digital skill, attitude and behavioral intention; Finally, make relevant suggestions.

2. Literature Review

2.1. The Nature of Aging

China's one-child policy, for example, has led to a steep drop in fertility and a rise in the proportion of older people. With the continuous development of national economy, continuous improvement of national living standards and more advanced medical technology, the national life expectancy is generally prolonged. Aging will have an impact on national finance, economy, society and medical treatment (Wang, 2019; Zhang, 2021).

In view of the above, in terms of the aging problem, every old person in China needs six working people to support, which increases the pressure on public finance (Gao, 2021; Wang, 2019; Zhang, 2021). Secondly, some elderly people have empty nests, and some of them are left alone, causing problems in personal health, family and marriage (Chen, 2020; Cheng, Wang, & Ma, 2020; Zhu, 2020). Facing these aging problems, if solutions can be put forward, it will benefit the stable development of the country. To solve the problem of aging, improve the elderly care system (Sun, 2021; Zhu, 2020). The development of the combination of medical care and elderly care (Shi, 2021; Wang, 2022) the development of home community elderly care (Hou, Meng, & Cui, 2020; Wang, 2020a; Yan, 2021) etc., can make up for personal health, family and marriage problems, and even alleviate economic and social problems through pension services. Among them, in the age of digital technology, the development of intelligent pension is also proposed (Chen & Yen, 2022; Li, Li, Chen, & Sun, 2022) indicating the future trend of intelligent elderly care, but also highlighting the importance of this study to explore the influence of digital inertia and digital skills on attitudes and behavioral intentions of the elderly.

2.2. The Concept of Digital Skills

According to Wikipedia, digital describes a system that generates and processes binary data. Calculators are essentially digital machines that specialize in processing information that has been encoded as binary values. These values, called bits, combine to form the bytes that form the basis of all calculator systems (Webopedia, 2022). Digitalization is the transformation from simulation to digital, that is, the process of using digital data to simplify the way we work, or using digital information to make the established way of work simpler and more efficient is called digitalization (Salesforce, 2022). Due to the use of digital information transfer, relevant hardware platforms and processes need to be built, as well as certain technologies. No matter the enterprise product information transmission, platform operation, or platform users (users), all must have the knowledge and skills of using digital terminals, so as to send and receive information and complete communication and exchange tasks. Therefore, digital skills are defined as "the skills that users of digital tools use digital terminals to collect, analyze and process information for communication or information feedback purposes".

Secondly, in terms of the relationship between digital skills and behavioral intention, a user's better knowledge and skills facilitate him to perform a certain behavior or activity (Turek & Henkens, 2021). Taking smart pension service as an example, the elderly with higher digital skills are more familiar with the functions and operation interfaces of smart service platforms, and they are more likely to order food through smart pension platforms. In other words, older people's perception of higher digital skills may help improve their willingness to act. Therefore, this study proposes hypothesis 1:

Hypothesis 1: In the interaction between the elderly and the intelligent pension service platform, the digital skills of the elderly may affect their behavioral intentions.

In addition, in terms of the relationship between digital skills and attitudes, a user's better knowledge and skills facilitate him to perform a certain behavior or activity (Turek & Henkens, 2021). This means that users with better knowledge and skills may have stronger cognition of specific things and more obvious tendency to do or not do specific behaviors. In other words, in the interaction between the elderly and the smart pension

service platform, if the elderly has higher digital skills, they may have a better cognition of the smart pension service platform, and their tendency to adopt or not adopt the smart service tool will be more clear. Therefore, hypothesis 2 is proposed in this study:

Hypothesis 2: In the interaction between the elderly and the intelligent pension service platform, the digital skills of the elderly may affect their attitudes.

2.3. The Concept of Behavioral Intention and Attitude

In the theory of planned behavior, behavioral intention is one of the antecedents for an individual to decide his or her real behavior. If an individual has a strong intention to invest in his or her behavior, he or she is more likely to show such behaviour (Jun & Arendt, 2016). For example, if the behavior intention of the elderly is higher, it means that the elderly is more likely to use the intelligent pension service platform, and the possibility of their actual use is also higher. Attitude is the influencing factor of behavioral intention in the theory of planned behavior. Traditionally, attitudes have a cognitive and emotional component. The cognition of attitude can be defined as the instrumental utility of an individual's behavior, or the weight of value in achieving goals (Norman, 1975). The emotion of attitude can be defined as an individual's positive and negative feelings towards a particular issue (Norman, 1975). That is, if an individual evaluates that doing a particular behavior will produce results consistent with the target value, he will be more willing to do it (attitude perception); When an individual evaluates a particular behavior and feels more positive than negative, he is more likely to do it (the emotion of attitude). Therefore, in the interaction between the elderly and the intelligent pension service platform, the elderly's perceived attitude may affect their behavioral intention. The following hypotheses are proposed in this study:

Hypothesis 3: In the interaction between the elderly and the intelligent pension service platform, the elderly's perceived attitude may affect their behavioral intention.

2.4. The Concept of Digital Inertia

Inertia is the customer's habitual, inactive or passive condition of repeated purchases; People with high inertia will repeat a particular behavior and are the promoters of behavioral loyalty (Lin & Yen, 2019). Therefore, in the digital era, digital inertia can be defined as the habit of the elderly to use digital technology or digital tools. The more accustomed they are to using a particular digital tool (high inertia), the more likely they are to have repetitive behaviors. Conversely, if they don't have the inertia to use digital tools, their behavior is likely to be more uncertain and less predictable.

Secondly, in terms of the influence of inertia, inertia can drive consumers to stay with the same brand, most likely because they make less effort to other brands (Solomon, 1994). Therefore, habitual consumers are often regarded as false loyalty (Anderson & Srinivasan, 2003). For example, in the old-age care industry, the inertia (digital inertia) of the elderly to smart tools may be because they have not found other smart tools more suitable for them, so they use the same smart tools.

In addition, inertia also plays a role in regulating the relationship between variables. Consumers repeatedly buy certain brands because they do not think too much (Chintagunta & Honore, 1996) and sometimes they repeatedly buy even if they have negative comments on the brand (Huang & Yu, 1999). Therefore, inertia has been shown to play a role in regulating the relationship between the two variables (Solomon, 1994). For example, consumer inertia intensity can weaken the relationship between consumer satisfaction and loyalty in e-commerce (Solomon, 1994; White & Yanamandram, 2004) that is, in a situation of high inertia, whether consumers have high satisfaction will form loyalty. In the low inertia situation, even if consumers are satisfied with the brand perception, there will be no loyalty. In other words, in the intelligent endowment situation, the relationship between digital skills and behavioral intention, digital skills and attitude, and attitude and behavioral intention perceived by the elderly may be affected by the digital inertia of the elderly, showing a strengthening or weakening effect. Accordingly, the following hypotheses are proposed in this study:

Hypothesis 4: In the interaction between the elderly and the intelligent pension service platform, the digital inertia of the elderly may affect the relationship between their perceived digital skills and behavioral intentions, digital skills and attitudes, and attitudes and behavioral intentions.

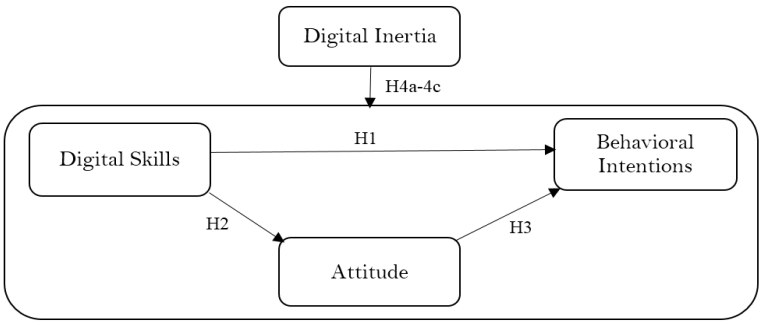

Figure 1. Research framework.

3. Research Methodology

3.1. Research Model and Hypotheses

This study aims at verifying the relationships among digital inertia, digital skills, attitude, and behavioral intentions in smart senior care context. It focuses on causal relationships of variables and the topic is appropriated to employee the quantitative method.

There are four variables in the conceptual framework (Figure 1), named digital inertia, digital skills, attitude, and behavioral intentions. Basically, positive relationships are met among digital skills, attitude, and behavioral intentions while the moderating effects of digital inertia on relationships of above variables are unknown.

Four hypotheses are proposed based on previous studies (Bassellier, Benbasat, & Reich, 2003; Li, Zhang, & Yen, 2021; Mullins & Cronan, 2021; Yen, 2022). In the baseline model, that digital skills are likely to have a positive influence on behavioral intentions in smart senior care context (H1); digital skills are likely to have a positive influence on attitude in smart senior care context (H2); and attitude is likely to have a positive influence on behavioral intentions in smart senior care context (H3) are proposed. Furthermore, In the moderating model, we proposed that digital inertia is likely to impact digital skills-attitude-behavioral intentions relationships (H4a, H4b, and H4c) based on our research objective.

3.2. The Instruments of the Survey

Four variables were listed in the causal model. digital inertia (IN) was defined as "the extents related to processing or doing something in daily life" (Bassellier et al., 2003; Li et al., 2021). Three items were adopted to measure IN including "I'm used to the established way of doing things", "I prefer the existed ways of doing things to trying new digital ways", and "I don't like strange ways of doing things".

Digital skills (SK) was defined as "the skills or experience of collecting, analyzing, and processing the information about digital network" (Mullins & Cronan, 2021). It was measured by three items, "I have enough skills about information collection", "I have enough skills about information analysis", and "I have enough skills about Information processing". This study defined Attitude (AT) as "the tendency about the usage of smart senior care program" (Li et al., 2021; Mullins & Cronan, 2021; Yen, 2022). Items including "The usage of smart senior care program is a good idea", "The usage of smart senior care program is a smart idea", and "I like this idea while using smart tools to deal with daily life needs" were employed for measuring the construct of attitude.

Considering to behavioral intentions (INT), it was viewed as "the extents to reuse, positive words of mouth, and recommended the smart tools" (Li et al., 2021; Yen, 2022). Those items, "Whenever I need, I'll process network through smart tools", "I'll tell the positive benefits of smart tools to other senior", and "I'll recommend the benefits of smart tools to other senior" were used to measure INT.

3.3. Questionnaire Survey

Considering to the theme of the study was to verify the causal relationships with in variables, and the data collection requirements of our study such as the needs of large samples of experience on using smart tools, it would be appropriate to employ the questionnaire survey. The population was unknown and set on those seniors who were experienced smart tools during the past six month. They were conducted on site and online for collecting data. The questionnaire was established on Questionnaire Start System. The link was send to relevant groups in May, 2022. Of 403 questionnaires obtained (Table 1), about 36.7% were male and 63.3%were from female respondents. At about 37.2% of respondents were 50-59 years of age, 43.4% of respondents were 61-65 years of age, 16.6% of respondents were 66-70 years of age, 2.7% of respondents were above 71 years of age. Approximately 16.6% of respondents were graduated from primary school or below; 32.5% of respondents come from secondary school; 27.5% were undergraduate; 20.8% got a bachelor degree; and only 2.5% of respondents were master.

Table 1. Demographic characteristics (n=403).

Item	Freq	%	Item	Freq.	%
Gender			Occupation (before retired)		
Male	148	36.7	Government department	14	3.5
Female	255	63.3	Manufacturing industry	88	21.8
Age (years old)			Commerce/service industry	95	23.6
50-60	150	37.2	Agricultural industry	80	19.9
61-65	175	43.4	Educational industry	87	21.6
66-70	67	16.6	Else	39	9.7
71 or above	11	2.7	Monthly income retired (RMB)		
Educational level			<3000	111	27.5
Primary	67	16.6	3001-6000	194	48.1
Secondary	131	32.5	6001-8000	83	20.6
Undergraduate	111	27.5	>8000	15	3.7
Bachelor	84	20.8			
Master or above	10	2.5			

With regard to the occupation, 3.5% of respondents work at government related sectors, 21.8% of respondents belong to industrial sector, 23.6% of respondents were commerce/service industry, 19.9% of respondents were farmers, 21.6% of respondents were educational industry, and 9.7% of respondents were retired/else. Approximately 27.5% of respondent's monthly income was below 3000 RMB (the official currency of the People's Republic of China), 48.1% of respondent's monthly income was 3001-6000 RMB, and 20.6% of respondent's monthly income was 6001-8000 RMB while 3.7% of respondent's monthly income exceeds 8000 RMB. The Correlation matrix of measurement was listed in Appendix A.

4. Results

In line with Anderson and Gerbing (1988) this study adopted two-stage analytical procedures to validate the measurement model and structural model. It's suggested that the validity and reliability could be assessed by measurement model and hypothesized relationships within proposed model were estimated by structural model using the maximum- likelihood method (Bagozzi & Yi, 1988).

4.1. The Descriptive Statistics and Normality

As shown in Table 2, descriptive statistics, skewness and kurtosis were conducted. As expected, all of the absolute values of skewness were less than 3 and kurtosis did not exceed 10, which indicating no departure from normality (Nunnally & Bernstein, 1994). Then, the psychometric properties of the constructs were assessed by calculating the Cronbach's alpha in terms of reliability coefficient (Fornell & Larcker, 1981) and the CFA (Confirmatory Factory Analysis) and SEM (Structural Equation Modelling) were carried out in the next section.

4.2. Assessment of the Measurement Model

As shown in Table 3, the standardized factor loadings (SFL) exceed the recommended value of 0.50 and all indicators used in this study significantly loaded on their corresponding factors (Hair, Black, Babin, & Anderson, 2010). The convergent validity of the constructs in the measurement model were confirmed. Furthermore, AVE (average variance extracted) values of the constructs were also close to the level of 0.50, indicating that convergent validity of the measurement model was proved (Fornell & Larcker, 1981). According to Table 4, the squared root of AVEs presented on the diagonal exceed the correlations between the constructs. Thus, the discriminant validity of the constructs was evidenced (Hair et al., 2010).

Table 2. Descriptive statistics (n=403).

Question items	Mean	SD	Sk.	Ku.	SFL
Digital Inertia (VE=61.44%, Cronbach's Alpha= 0.684)					
IN1: I'm used to the established way of doing things.	2.42	1.007	0.383	-0.445	0.797
IN2: I prefer the existed ways of doing things to trying new digital ways.	2.58	1.144	0.302	-0.675	0.837
IN3: I don't like strange ways of doing things.	2.71	1.120	0.238	-0.581	0.805
Digital Skills (VE=64.25%, Cronbach's Alpha= 0.721)					
SK1: I have enough skills about information collection.	2.49	1.077	0.389	-0.478	0.813
SK2: I have enough skills about information analysis.	2.52	1.096	0.230	-0.823	0.781
SK3: I have enough skills about Information processing.	2.44	1.055	0.512	-0.270	0.810
Attitude (VE=63.72%, Cronbach's Alpha= 0.715)					
AT1:The usage of smart senior care program is a good idea.	2.09	0.982	0.679	-0.106	0.785
AT2: The usage of smart senior care program is a smart idea.	2.11	1.008	0.678	-0.110	0.815
AT3:I like this idea.	2.02	0.941	0.645	-0.231	0.794
Behavioral intentions (VE=59.37%, Cronbach's Alpha= 0.656)					
INT1:Whenever I need, I'll process network through smart phone.	2.19	0.856	0.453	-0.099	0.770
INT2: I'll tell the positive benefits of smart phone to other senior.	2.19	0.953	0.574	-0.086	0.730
INT3:I'll recommend the benefits of smart phone to other senior.	2.23	0.940	0.553	-0.051	0.809

Note: SD: Standard deviation; Sk: Skewness; Ku: Kurtosis; SFL: Standard factor loading; VE: Variance extracted.

Table 3. Results of CFA (n=403).

Constructs	Indicator	λ	t-values	SMC	CR	AVE
Digital Skills (SK)	SK1	0.710	14.279	0.505	0.722	0.464
	SK2	0.669	13.316	0.448		
	SK3	0.663	13.156	0.439		
Attitude (AT)	AT1	0.673	13.317	0.453	0.716	0.456
	AT2	0.691	13.739	0.478		
	AT3	0.662	13.056	0.438		
Behavioral Intentions (INT)	INT1	0.648	12.562	0.420	0.661	0.395
	INT2	0.569	10.834	0.324		
	INT3	0.663	12.892	0.440		
Digital Inertia (IN)	IN1	0.622	10.874	0.386	0.688	0.425
	IN2	0.706	12.026	0.498		
	IN3	0.624	10.907	0.389		

Notes: λ: Standardized factor loadings; SMC: Square multiple correlation; CR: Composite reliability; AVE: Average variance extracted; All t-statistics are significant at 0.01 level; (χ^2 =84.7, Degree of freedom (DF)=48, p=0.001, χ^2 / DF = 1.765, goodness-of-fit index (GFI)= 0.967, adjusted goodness-of-fit index (AGFI)= 0.946, comparative fit index (CFI)= 0.969, Root Mean Square Error of Approximation (RMSEA)= 0.044).

Table 4. Discriminant validity of constructs.

Items	M	SD	1	2	3	4
1.SK	7.45	2.59	0.681			
2.AT	6.21	2.34	0.507**	0.675		
3.INT	6.61	2.12	0.538**	0.506**	0.629	
4.IN	7.85	2.63	0.109*	-0.022	0.166**	0.652

Note: *p<0.05, **p<0.01; IN: Digital Inertia; SK: Digital Skills; AT: Attitudes; INT: Behavioral intentions; Diagonal elements are the square root of average variance extracted. Off-diagonal elements are the coefficients of correlation between factors.

4.3. Assessment of the Structural Model

Following the validation of the measurement model, the proposed model with three constructs estimated with structural equations modelling to test the research hypotheses. Three steps were employed to estimate the parameters as well as the hypothesis testing. As shown in Table 5, the relationships of baseline model were estimated in Model 1, Model 2, and Model 3. The overall fit indexes for the Model 3 was adequate (χ^2 =36.8, DF=24, p=0.165, χ^2 /DF = 1.53, GFI=0.980, AGFI= 0.963, CFI= 0.986, RMSEA= 0.036) and the research hypotheses of baseline model were confirmed. As expected, the SK-INT relationship, SK-AT relationship, and AT-INT relationship were significantly and positively confirmed, which supported H1, H2, and H3. The R^2_{AT} was 0.499, and R^2_{INT} was 0.666.

Table 5. Hypotheses testing for baseline model.

Paths	M1		M2		M3	
	Estimate	t	Estimate	t	Estimate	t
H1: SK-INT	0.771***	6.589	0.832***	6.164	0.483***	3.993
H2: SK-AT			0.770***	7.594	0.707***	7.446
H3: AT-INT					0.400***	3.386
R^2_{AT}			0.593		0.499	
R^2_{INT}	0.595		0.692		0.666	
Model fitness						
χ^2	15.61		49.0		36.8	
DF	8		25		24	
p	0.048		0.003		0.165	
χ^2 / DF	1.950		1.961		1.53	
GFI	0.986		0.973		0.980	
AGFI	0.965		0.952		0.963	
CFI	0.986		0.974		0.986	
RMSEA	0.049		0.049		0.036	

Note: Means Estimated values were significant at ***p<0.001.

4.4. Assessment of Differences Across Digital Inertia (IN)

To test the proposed moderating effect of digital inertia (IN), our study conducted the invariance test for measurement and structural models. A total of 196 participants were low IN, 207 respondents were high IN.

First, a non-restrict model was generated. The model included a good fit to the data (χ^2 =36.8, DF=24, p=.165, χ^2 /DF = 1.53, GFI=0.980, AGFI= 0.963, CFI= 0.986, RMSEA= 0.036). The restricted model of

structural weight was then compared to the full-metric invariance model whose fit to the data were adequate (χ^2 =31.4, DF=21, p=0.067, χ^2 / DF = 1.436, GFI= 0.949, AGFI= 0.933, CFI= 0.967, RMSEA= 0.033). Results of the chi-square difference test revealed that there was no significant difference between these two models ($\triangle\chi^2$ (3) = 1.8, p > 0.05). This finding supported the full-metric invariance. This full-metric invariance model remained for further analysis. Table 6 includes the details about the measurement invariance assessment. The baseline model was generated by adding proposed paths on the full-metric invariance model. Results showed that the baseline model acceptably fit to the data (χ^2 =67.68, DF=48, p=0.032, χ^2 / DF = 1.41, GFI= 0.966, AGFI= 0.936, CFI= 0.979, RMSEA= 0.032).

Next, this model was compared to nested models in which a particular linkage across IN_H and IN_L groups is constrained to be equivalent. Findings from the chi-square difference test revealed that there were insignificant differences of the links. Thus, IN did not have magnitude of the impact of SK on INT, SK on AT, and AT on INT. Consequently, there were insignificantly different across IN_H and IN_L groups.

Table 6. Hypotheses testing for moderated model.

Paths	M4 (IN_L, n=196)	M5 (IN_H, n=207)	M3 (IN_{All}, n=403)	Baseline model	Nested model
	Estimate(t)	Estimate(t)	Estimate(t)	χ^2 (DF)	χ^2 (DF)
H1:SK-INT	0.329*(2.02)	0.501**(3.01)	0.483***(4.00)	67.68(48)	68.11(49)
H2:SK-AT	0.726***(5.03)	0.683***(5.45)	0.707***(7.45)	67.68(48)	67.87(49)
H3:AT-INT	0.553**(2.71)	0.379*(2.51)	0.400***(3.39)	67.68(48)	68.09(49)
R^2_{AT}	0.527	0.467	0.499		
R^2_{INT}	0.678	0.655	0.666		
Chi-squire difference testing					
H4a	$\triangle\chi^2/\triangle$DF=0.43				
H4b	$\triangle\chi^2/\triangle$DF=0.19				
H4c	$\triangle\chi^2/\triangle$DF=0.41				

Note: *P<0.05, **P<0.01, ***p<0.001.

4.5. Discussions

In conclusion, when digital inertia is not taken into account, digital skills of the elderly significantly affect their behavioral intentions, as well as their attitude, and the results are consistent with previous expectations of our study. This indicates that the higher the digital skills of the elderly in collecting, analysing and processing network information, the higher their willingness to use, recommend and positively disseminate the smart senior care service platform. In other words, the digital skills of the elderly directly and significantly affect their behavioral intentions.

Secondly, if the elderly has better network information collection, analysis and processing skills, they will have a higher cognitive tendency and emotional tendency to the smart senior care service platform. In other words, better digital skills will affect their cognitive and emotional evaluation of the smart senior care service platform. The clearer they tend to evaluate that the smart senior care service platform has functional value and its benefits outweigh its disadvantages.

Third, once the elderly has a high cognitive and emotional tendency towards the smart senior care service platform, their willingness to use the smart senior care service platform, their willingness to recommend and positive communication will be higher. In other words, the digital skills of the elderly directly and significantly affect their behavioral intentions. In other words, the attitude of the elderly directly and significantly affects their behavioral intention.

Finally, when digital inertia is taken into account, the results show that digital inertia does not significantly regulate the relationship between the variables in the study, which is different from existing studies (Chintagunta & Honore, 1996; White & Yanamandram, 2004). The results show that the digital inertia of the elderly does not significantly affect the relationship between digital skills and behavioral intention, digital skills and attitude, and attitude and behavioral intention. First of all, the habits of using digital tools to eat, travel, shopping and medical treatment were not high (M=2.62), which did not significantly affect the relationship between their digital skills, attitudes and behavioral intentions. Moreover, since digital inertia does not significantly affect the behavior patterns of elderly receiving smart senior care services, government departments, smart senior care service institutions and platform operators may have to re-think about how to make them develop digital inertia.

5. Conclusion

Aging is one of the trends of population, which may bring problems to the elderly, such as physical and mental health, working skills and income. It may cause problems of family financial, marriage and family violent. More importantly, it may bring financial, economic and social problems to the government. Therefore, how to solve

or mitigate the impact of aging through the development of intelligent elderly services has become a major issue for the current government and academia.

The purpose of this study is to explore the status and relationship of digital skills, attitude towards intelligent elderly care service and behavioral intention of the elderly. The influence of digital inertia on the relationship between digital skills, attitudes and behavioral intention in the elderly. Based on the above analysis, the following conclusions are obtained:

- The means' score of digital skills, attitude to smart senior care service and behavioral intention of elderly respondents is low.
- A respondent's digital skills significantly affect their behavioral intention, regardless of their attitude.
- Regardless of digital inertia, the relationship between digital skills and behavioral intention, digital skills and attitude, or attitude and behavioral intention is unaffected by aging participants' digital inertia.

Accordingly, the following suggestions are put forward for government departments, smart senior care service institutions and follow-up studies:

- Regardless, an elderly person's digital skills significantly influence their behavioral intention, as well as their attitude. Government departments should formulate management measures for intelligent elderly care services and devote themselves to caring for and training the digital skills of the elderly, so as to facilitate the promotion and management of intelligent elderly care service policies.
- A smart elderly care service provider should gradually build a system of smart services, including hardware and software. Accordingly, intelligent elderly care service institutions can better serve the elderly, meet the requirements of laws and regulations, and share and integrated resources with other suppliers and providers.
- At the same time, the study explored the current situation and relationship between digital skills, attitude to smart elderly care service and behavioral intention of elderly people, and the influence of digital inertia of elderly people on the relationship between digital skills, attitude and behavioral intention. Digital inertia has insignificant effect on the research model, and the real reasons need to be further explored. Secondly, other variables may influence the behavior of elder, such as ease of use and usefulness, which can be continuously discussed by researchers in the future.

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Appendix A. Correlations between variables.

Items	M	SD	Digital Skills			Attitude			Behavioral Intentions			Digital Inertia		
			SK1	SK2	SK3	AT1	AT2	AT3	INT1	INT2	INT3	INE1	INE2	INE3
SK1	2.49	1.08	1											
SK2	2.52	1.10	0.450**	1										
SK3	2.44	1.06	0.498**	0.443**	1									
AT1	2.09	0.98	0.388**	0.290**	0.345**	1								
AT2	2.11	1.01	0.351**	0.346**	0.250**	0.463**	1							
AT3	2.02	0.94	0.317**	0.337**	0.294**	0.426**	0.478**	1						
INT1	2.19	0.86	0.340**	0.369**	0.291**	0.320**	0.336**	0.326**	1					
INT2	2.19	0.95	0.365**	0.307**	0.341**	0.246**	0.282**	0.248**	0.328**	1				
INT3	2.23	0.94	0.309**	0.377**	0.291**	0.377**	0.318**	0.355**	0.448**	0.393**	1			
INE1	2.49	1.00	0.182**	0.131**	0.132**	0.086	0.081	0.122*	0.302**	0.142**	0.123*	1		
INE2	2.59	1.20	0.012	0.037	0.072	-0.073	-0.087	-0.059	0.061	0.093	0.010	0.436**	1	
INE3	2.77	1.15	0.010	0.050	0.026	-0.053	-0.054	-0.033	0.086	0.096	0.042	0.377**	0.450**	1

Note: *P<0.05, **P<0.01.