The Influence of Consumer Cognition on the Purchase Intention of Commercial Long-term Care Insurance: A Case Study of Henan Province, China

Xiaojuan Yu[1*], and Yue Huang[2]

Stamford International University, Thailand

Corresponding author. E-mail: 2203090003@students.stamford.edu[1], yue.huang@stamford.edu[2]

Abstract

Commercial long-term care insurance (CLTCI) is a type of insurance that provides consumers with long-term care services. Promoting CLTCI can not only provide insurance companies with new growth points for performance but also serve as an important measure for the government to alleviate the challenges of population aging. However, as the main purchasers of CLTCI, the impact mechanism of consumer cognition on their intention to purchase CLTCI remains unclear. This study explores the influence of consumer cognition on their intention to purchase CLTCI. A total sample of consumers aged 45-59 years who are permanent residents of Henan Province was selected, and 400 valid questionnaires were collected using the convenience sampling method. Structural equation modeling (PLS-SEM) was employed for empirical analysis. The results show that: 1) Consumer cognition has a significant impact on their purchase intention (β=0.121, p<0.01); 2) Consumer cognition has a significant impact on their purchase attitude (β=0.721, p<0.001); 3) Purchase attitude has a significant impact on purchase intention (β=0.764, p<0.001); 4) Purchase attitude plays a mediating role in the influence of consumer cognition on purchase intention (β=0.551, p<0.001).

Keywords: Purchase intention; Consumer cognition; CLTCI; Theory of Planned Behavior (TPB)

Introduction

At present, China has become the country with the largest and fastest-growing elderly population in the world (Li, 2024). According to the medium-variant projection of the United Nations Population Division (2022), China's elderly population is expected to peak around 2050, when it will reach 509 million. Among them, the number of elderly individuals unable to live independently is projected to rise to 11.59 million (United Nations Population Division, 2022). Compared with traditional endowment insurance, CLTCI can provide consumers with long-term care services. Enhancing consumers' purchase intention of CLTCI is of significant importance to both insurance companies and government. As the primary purchasers of CLTCI, consumer cognition may profoundly influence their purchase intention. However, existing research has mainly explored the influencing factors of CLTCI purchase intention from demographic perspectives such as education level, income, and age, while empirical studies on the impact of consumer cognition on their purchase intention remain scarce. Therefore, investigating the mechanism through which consumer cognition affect purchase intention of CLTCI can not only enrich the literature on the relationship between consumer cognition and purchase intention but also help insurance companies expand new CLTCI businesses and provide new insights for the state to address the challenges of population aging.

Research Objectives

1. To examine the impact of consumer cognition on consumers' intention to purchase CLTCI.

2. To explore the influence of consumer cognition on consumers' attitude toward purchasing CLTCI.

3. To investigate the effect of attitude on consumers' intention to purchase CLTCI.

4. To analyze the mediating role of attitude in the relationship between consumer cognition and purchase intention.

Literature Review

TPB

The core element of the Theory of Planned Behavior (TPB) is an individual's willingness to perform a specific behavior. The theory posits that the more positive an individual's attitude toward the behavior and the greater the subjective social pressure (i.e., subjective norm)

perceived, the stronger the behavioral intention, which in turn drives the actual performance of the behavior (Ajzen & Madden, 1986). Ajzen and Driver (1991) emphasized that when applying TPB to study diverse behaviors, scholars need to incorporate new explanatory variables or path relationships into the original theoretical framework to enhance its explanatory and predictive power.

CLCTI

Commercial long-term care insurance (CLCTI) is a branch of commercial health insurance. It mainly transfers risks such as the risks of long-term care caused by old age, illness or disability. The target population it covers mainly includes disabled people such as the elderly and the disabled (Tang, 2023).

Consumer Cognition

Dori et al. (2018) define cognition as the psychological process through which consumers acquire, interpret, and process knowledge via perception, reasoning, and memory. In the context of commercial long-term care insurance (CLTCI), Sun (2020) conceptualizes consumer cognition as a multidimensional construct encompassing individuals' awareness, understanding, and evaluation of factors influencing their purchase intentions, including personal norms, insurance knowledge, and trust. As a psychological construct, consumer cognition shapes attitudes and behaviors toward specific products. Prior research suggests that such constructs are best measured through reflective indicators, as they represent latent factors that manifest in observable variables (Hardin et al., 2008). Consequently, this study conceptualizes consumer cognition as a reflective second-order variable, focusing on three dimensions: personal norms, insurance knowledge, and trust. 1) Personal Norms. Zhang et al. (2019) identify personal norms as critical drivers of individual intentions. In consumer behavior, Wu (2021) posits that personal norms are rooted in value systems and reflect judgments about the inherent appropriateness of actions. For CLTCI, stronger personal norms correlate with heightened responsibility to mitigate potential burdens on families, society, and the state caused by disability risks. This ethical imperative fosters more positive attitudes and stronger purchase intentions toward CLTCI. 2) Insurance knowledge. Insurance knowledge refers to knowledge about insurance products, including coverage scope, service provisions, and regulatory frameworks (Sun, 2020). Grounded in the Model of Responsible Environmental Behavior (Hines et al., 1987), adequate knowledge enables informed decision-making, whereas knowledge gaps hinder proactive behaviors. Hornsey (2008), integrating social

identity and self-categorization theories, emphasizes that insurance knowledge shapes attitudes. Enhanced literacy facilitates favorable perceptions of CLTCI's value, thereby strengthening purchase intentions. 3) Trust. Trust reflects confidence in the reliability of others' commitments (Rotter, 1967). Chen (2024) highlights trust as a pivotal determinant of purchase intentions in insurance markets. Greater trust in insurers increases reliance on their guarantees, fostering positive attitudes and higher intention to purchase CLTCI. This multidimensional framework underscores the interplay of cognitive factors in shaping CLTCI adoption, offering theoretical and practical insights for market development.

Attitude refers to an individual's positive or negative evaluation of performing a certain behavior, which is usually influenced by behavioral beliefs and outcome evaluations (Ajzen & Fishbein, 1980). Consumers' acceptance and purchasing attitudes towards products can significantly affect their purchase intentions (Kazaure, 2019).

Based on the above analysis, the following hypotheses are proposed:

H1: Consumer cognition has a significant impact on purchase intention

H2: Consumer cognition has a significant impact on purchasing attitude

H3: Purchasing attitude has a significant impact on purchasing intention

H4: Purchase attitude plays a mediating role in the influence of consumers' cognition on purchase intention

In summary, this study constructs a " consumer cognition-attitude-purchase intention" path model (Figure 1) based on Ajzen's (1991) TPB to explore the psychological mechanisms underlying consumers' decision-making processes in purchasing CLTCI. To enhance the explanatory power of TPB in this specific context, this paper introduces consumer cognition as an antecedent variable of attitude, comprising three dimensions: insurance knowledge, trust, and personal norms, to reveal its influence pathways on attitude and purchase intention.
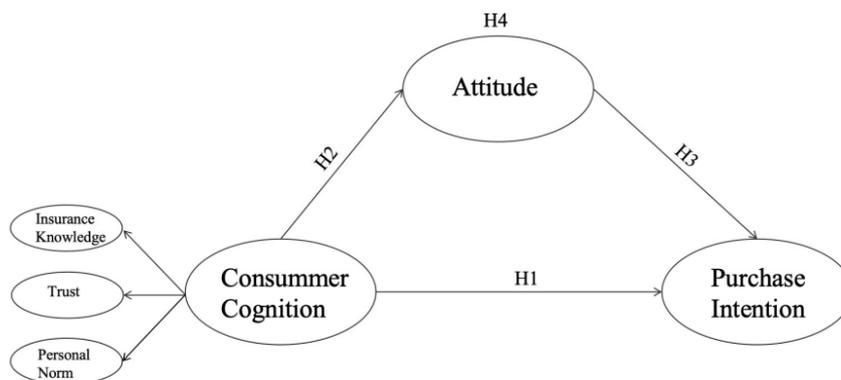
Figure 1 Conceptual Framework

Research Methodology

Population and Sample

The research group of this article is the permanent residents aged 45–59 in Henan Province. Henan Province is located in the central part of China and has always been one of the most populous provinces in China. In recent years, the speed of population aging has intensified. Taking it as the research object, the research results have certain universality. A total of 559 questionnaires were sent out in this study, and 400 valid questionnaires were retrieved.

Measures

This study employs questionnaire surveys to collect data. All variables in the questionnaire are measured using a 5-point Likert scale (Likert, 1932). To ensure the reliability and validity of the questionnaire, all measurement scales for variables are adapted from mature scales used in previous research: Insurance knowledge and personal norms are measured using the scales developed by Sun (2020). The scale for trust is derived from Hajli (2015). Scales for attitude and purchase intention are adapted from Taylor and Todd (1995) and Wang et al. (2009), respectively. Additionally, the questionnaire has undergone corresponding ethical review and certification.

Data Collection

This study employed convenience sampling to collect data through online questionnaire distribution platforms such as WeChat. Convenience sampling was chosen for its operational simplicity, as it requires no complex statistical procedures and minimizes implementation challenges. This method is particularly suitable for research with low requirements for sample representativeness, allowing efficient data collection in exploratory studies.

Data Analysis Method

This paper adopts SmartPLS 4.0 software for data analysis. The partial least squares structural equation model (PLS–SEM) of SmartPLS4.0 software can be used for aggregate validity analysis, discriminant validity analysis, path analysis and mediation test (Hair et al.,2021). PLS–SEM has strong adaptability and high efficiency (Guenther et al., 2023), and is especially suitable for exploratory analysis (Rahman et al., 2023).

Research Results

Descriptive statistics

Since in the questionnaire design, only questionnaires with respondents aged between 45 and 59 can be considered valid, among the 400 valid questionnaires retrieved, the respondents' ages were all between 45 and 59. Among them, there were 193 males, accounting for 48.25%, and 207 females, accounting for 51.75%. The number of female respondents was slightly higher. In addition, the monthly income of the respondents is concentrated between 3,000 and 8,000 yuan, accounting for 54%. Moreover, the occupations of the respondents are mainly enterprise employees, accounting for 33.5%. The survey also shows that 52% of the respondents have educational qualifications below high school and secondary school. This indicates that the educational attainment of the respondents is generally not high, which is related to the age of the samples selected in this article being 45–59 years old.

Reliability and Validity Assessment

This study evaluated the convergent validity of the measurement model through composite reliability (CR), Cronbach's α, standardized factor loadings, and average variance extracted (AVE). As shown in Table 1, all indicators met the criteria established in relevant literature. Specifically, the composite reliability (CR) values exceeded the recommended threshold of 0.6, confirming the scale's reliability, while Cronbach's α coefficients were all above 0.7, indicating satisfactory internal consistency (Hair et al., 2011). Additionally, the AVE values for all variables surpassed 0.5 (Fornell & Larcker, 1981), and all item factor loadings exceeded 0.6 (Hair et al., 2016), collectively demonstrating acceptable convergent validity of the measurement scale.

Table 1 Reliability and Convergent Validity Analysis

Variable		Cronbach's Alpha	CRValue	AVE Value	Factor Loading
Step I: First-order reflective components and unidimensional constructs were evaluated.					
Personal Norm (PN)	PN1	0.836	0.861	0.670	0.865
	PN2				0.741
	PN3				0.769
	PN4				0.890
Trust (TR)	TR1	0.927	0.929	0.733	0.846
	TR2				0.835
	TR3				0.849
	TR4				0.893
	TR5				0.889
	TR6				0.822
Insurance Knowledge (IK)	IK1	0.923	0.932	0.732	0.839
	IK2				0.639
	IK3				0.893
	IK4				0.920
	IK5				0.916
	IK6				0.893
Attitude (AT)	AT1	0.921	0.922	0.809	0.873
	AT2				0.925
	AT3				0.931
	AT4				0.866
Purchase Intention (PI)	PI1	0.921	0.922	0.864	0.930
	PI2				0.931
	PI3				0.927
Step II: The second-order reflective construct was evaluated.					
Consumer Cognition (CC)	PN	0.930	0.856	0.668	0.695
	TR				0.895
	IK				0.848

Note: PN=Personal Norm; TR=Trust; IK=Insurance Knowledge; AT=Attitude; PI=Purchase Intention;

According to the Fornell & Larcker (1981) criterion, discriminant validity is established when the square root of the average variance extracted (AVE) for each variable exceeds its correlation coefficients with other variables. Tables 2 and 3 demonstrate that the square roots of the AVE for the five variables (attitude, insurance knowledge, purchase intention, etc.) are all greater than

their respective correlation coefficients with other variables, providing robust evidence for discriminant validity.

Table 2 Discrimminant Validity Analysis

Step I: First–order

Variable	AT	IK	PI	PN	TR
AT	0.899				
IK	0.450	0.855			
PI	0.851	0.431	0.929		
PN	0.725	0.405	0.703	0.819	
TR	0.657	0.620	0.586	0.487	0.856

Note: AT=Attitude; IK=Insurance Knowledge; PI=Purchase Intention; PN=Personal Norm;TR=Trust.

Table 3 Discrimminant Validity Analysis

Step II: second–order

Variable	CC	AT	PI
CC	0.817		
AT	0.721	0.899	
PI	0.672	0.851	0.929

Note: AT = Attitude; PI = Purchase Intention; CC = Consumer Cognition.

Path Analysis

This study employed SmartPLS 4.0 to examine the structural model through path coefficients and p–values, with results summarized in Table 4. The analysis revealed that consumer cognition exerts a significant direct influence on attitude toward purchase (β=0.721, p<0.001) and purchase intention (β=0.121, p<0.01). Furthermore, attitude toward purchase significantly enhances purchase intention (β=0.764, p<0.001). Crucially, attitude toward purchase mediates the relationship between consumer cognition and purchase intention, with a significant indirect effect (β=0.551, p<0.001). These findings provide empirical support for all proposed hypotheses (H1–H4). R–squared is greater than 0.5, and the model has good explanatory power.

Table 4 Path Analysis

No.	Path	Path Coefficient	Standard Deviation (STDEV)	T Statistics (IO/STDEVI)	P Values	R^2
H2	CC –> AT	0.721	0.030	24.415	0.000	0.520
H1	CC–> PI	0.121	0.038	3.190	0.001	
H3	AT –> PI	0.764	0.035	21.743	0.000	0.732
H4	CC –> AT –> PI	0.551	0.035	15.682	0.000	

Note: AT=Attitude; PI=Purchase Intention; CC=Consumer Cognition.

Discussions

This study focuses on three dimensions of consumer cognition—personal norms, insurance knowledge, and trust. The results demonstrate that consumer cognition positively influences purchase attitude (β=0.721, p<0.001) and purchase intention (β=0.121, p< 0.01), aligning with findings from Lin & Prince (2016), Brown et al. (2012), and Noon et al. (2020). Specifically, stronger personal norms enhance consumers' inclination to transfer disability risks through insurance, thereby fostering more positive attitudes and higher purchase intentions toward CLTCI. Simultaneously, richer knowledge about CLTCI's coverage, service mechanisms, and eligibility criteria strengthens consumers' recognition of its value, further improving purchase attitudes and intentions. Additionally, greater trust in insurers' contractual reliability amplifies consumers' confidence in CLTCI's protective benefits, leading to more favorable attitudes and heightened willingness to purchase. These mechanisms collectively validate the multidimensional structure of consumer cognition and its critical role in shaping CLTCI adoption behavior.

The research results also indicate that consumers' attitudes towards purchasing CITCI can significantly affect their purchase intentions (β=0.764, p<0.001). This is consistent with the research results of Sun (2020). Specifically, consumers' purchase of CITCI can effectively transfer the risk of disability, better protect the quality of life of their families and themselves, and is in line with consumers' belief of self-reliance and not causing trouble to the country and society. Therefore, the more positive consumers' attitude towards purchasing CITCI is, the stronger their intention to purchase will be.

Finally, this study also indicates that attitude plays a mediating role in the influence of consumer cognition on purchase intention (β=0.551, p<0.001). This is consistent with the research results of previous scholars Ebrahim et al. (2016). Specifically, based on consumers' understanding

of CITCI, they will first form an attitude judgment towards taking such an action, and then generate a purchase intention.

New Knowledge

This study constructs a model of consumers' intention to purchase CLTCI from the perspective of consumer cognition, which forms a striking contrast with traditional research on CLTCI purchase intention from aspects such as consumers' income, age, and education level, providing a new perspective for studying consumers' purchase intention. Meanwhile, by introducing "consumer cognition" as an antecedent variable of attitude while preserving the core structure of the TPB, this paper expands the understanding of the attitude formation mechanism and enriches the application value of the TPB in the field of complex insurance products.

Conclusion

Through empirical analysis, this study concludes that consumer cognition has a significant positive impact on their purchase attitude and purchase intention, and purchase attitude plays a mediating role in the influence of consumer cognition on purchase intention. This conclusion provides clear suggestions for insurance companies to formulate relevant marketing strategies from the perspective of enhancing consumers' cognition. It also provides a new idea for the country to advocate that consumers purchase CLTCI to alleviate the problem of population aging.

Suggestions

This study designates Henan Province of China as the target area and focuses on analyzing the mechanism of consumer cognition on the purchase intention of CLTCI. From the perspective of research design optimization, subsequent studies can be conducted from three aspects: cross-regional and cultural, increasing influencing factors, and using multiple sampling methods, to help researchers understand the driving mechanism of consumers' purchase intentions more meticulously and comprehensively.

For insurance enterprises, they can enhance consumers' intention to purchase CLTCI by formulating a series of marketing measures to improve consumer cognition, making CLTCI a new growth point for insurance companies' performance and also an important measure for the government to alleviate population aging.

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