The Influence of Psychological Account on the Demand of Long-term Accident Insurance for Family

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Abstract. As the Chinese economy experienced continuous economic growth, it has exited a period of rapid growth to a period of high-quality development. The insurance business is a crucial section of the national economy that not only leads to the development of the economy but also offers risk security to individuals and households. But the coverage depth and the insurance density in China have been found to be much lower than average the world over implying that there is a great need to break through in developing the insurance industry. Long-term personal accident insurance has always been a controversial subject among insurance products. It is long-term and relatively costly, which often provokes doubts and skepticism in consumers. The phenomenon is highly associated with loss of consumer confidence due to regulatory breaches, as the industry was growing in its early stages in China. The available literature in China concerns mainly personal insurance, and a small number of studies directly deal with long-term accident insurance. This paper will generalize findings of personal insurance studies into the realm of long-term accident insurance using the psychological account theory to assess its effects on long-term accident insurance household demand to gain a theoretical basis for future research. Based on the psychological account theory, this research examines the relationship between risk perception, emotional cognition, and willingness expression and purchase intentions of insurance and suggests corresponding sales recommendations to the insurance industry.

Keywords: Insurance Demand, Long-Term Accident Insurance, Psychological Account, Risk Attitude, Financial Literacy

1 Introduction

In recent years, China has been advancing steadily toward a new journey of Chinese-style modernization. Based on data from the China Household Finance Survey (CHIP) and the China Family Panel Survey (CFPS), as of June 2024, the insurance participation rate in China's insurance market was only 11. 71%, with both insurance density and coverage depth significantly lower than the global average, indicating an urgent need for breakthroughs in the development of the insurance industry [1]. As a vital pillar of modern finance, the insurance industry plays a significant role in the context of building a strong financial nation. As shown in Table 1, according to data from the National

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Bureau of Statistics, the per capita disposable income of residents has continued to grow in recent years, providing a solid economic foundation for the demand for commercial insurance [2].

Table 1. Average per capita consumer expenditure over the past five years.

Indicator	2025	2024	2023	2022	2021
Per capita household consumption expenditure(yuan)	29476	28227	26796	24538	24100
Growth rate of per capita household consumption expenditure over the previous year(%)	4. 4	5. 1	9. 0	-0. 2	12. 6
Per capita household medical and health expenditure (yuan)	2573	2547	2460	2120	2115
Growth rate of per capita household medical and health expenditure over the previous year(%)	1. 0	3. 6	16. 0	0. 2	14. 8

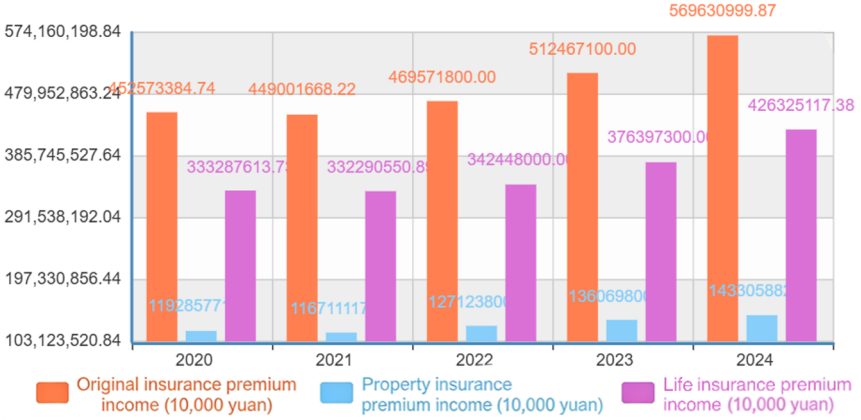


Fig. 1. Insurance revenue and categorization over the past five years (Picture credit: Original).

Considering Figure 1 obtained, the data provided by the National Bureau of Statistics indicate that the expenditure on medical insurance per capita has increased tremendously since 2022 due, in part, to the further increase of income [3]. This shows that in the post-pandemic period, people among the residents, in addition to fundamental social security and medical insurance, demand tailored and multi-layered risk insurance. Commercial life insurance may be applied in this case to satisfy personal requirements of safety cover in addition to social security. Long-term accident insurance on this aspect not only covers the protection, but also works as a financial management resource. Nonetheless, a high percentage of the consumers still have a misunderstanding regarding long-term accident insurance. These misunderstandings

are partially caused by the adverse outcomes of regulation violations observed at the initial stages of the industry and partially by the subjective psychological opinions held by the population.

Being a central idea of behavioral economics, the psychological account has been widely used over the last few years in the field of financial decision-making and consumer behavior studies [4]. Accident insurance, as a risk management tool that operates in the long term is affected by both objective risk factors and deep-rooted psychological factors of the individual. The psychological account theory states that such individuals do not regard all the money as interchangeable in making financial decisions, but rather, they mentally distribute the money into separate accounts, and all of these are accessed and handled separately. This theory also carries profound meanings of the household behavior pattern of buying long-term accident insurance. The existing studies on the way psychological explanation affects the domestic demand of long-term accident insurance are in their infancy, with a significant amount of theoretical controversies being raised. The key questions are the following: The first question will be how the psychological explanation, in particular influences the risk perception, the emotional cognition and the intention to buy the insurances. The second question analyses the results of the influence of the various characteristics of the household, including income level, age, gender, among others, with reference to whether the psychological accounts vary in corresponding ways in influencing insurance demand. These require answers not only to enhance theoretical knowledge but also to offer a practical guideline that can guide the design of products by insurers to be more customer-psychologically oriented. The paper will first discuss how the psychological account theory was pioneered and evolved and explain the main concepts and uses within the management of economics. It then combines both domestic and international studies to examine the basis of the psychological-based accounts as to their effect on household demand towards long-term accident insurance, including risk perception, emotional cognition, and willingness expression. At the end, the summary of the main findings is provided with the limitation consideration, so it could present references to theoretical studies and practical implementation concerning the same area.

2 The Theory of Psychological Accounts

The psychological account theory was initially formulated by Richard H. Thaler in 1980 to provide an explanation of the effect of sunk cost, and Thaler developed and formalized the theory further in 1990. According to Thaler, this was defined as an editing, categorizing, budgeting and evaluation process of the economic behaviors [5]. This theory has been very popular in the 21st century explaining the basis of behavioral anomalies of economic management especially in consumer decision-making and financial management. Since the first suggestion to the enhancement of the theoretical models and the practical extension, the psychological account theory has proved to be of high worth in the explanation of the economic behaviour of individuals. According to Liu Pei et al., the evolution of the theory and its application to the areas of economic management has been systematically reviewed, which explains the adverse behavioral

anomalies in consumption and financial decision making through three processes: establishment, computation and closure [4]. Also, Liu Qixiang et al. investigated the effect of various sources of income on the investment risk attitudes through the psychological account viewpoint and established that bonus income had a significant effect on increasing risk tolerance during investments, whereas wage and subsidy income did not have such a significant effect [6]. Evidence of the same was provided by Qin Hailin and Li Hui, who analyzed the effects of housing demolition on households, participation in financial markets using a psychological account, and noted that the payments associated with the demolition compensation greatly contributed to improving the household participation in the financial markets [7]. Also, Wang Xianghong et al. explored the impact of various income structures on household consumption and found that transfer income and property income have the highest level of marginal consumption, et al. further confirm the argument by showing that wage income and business income have significantly lower levels of marginal consumption as compared to transfer income and property income [8]. Drawing a conclusion, the psychological account theory is a strong theory in explaining the household economic behavior in different contexts. This theory influences the process of making insurance choices, especially in the field of household demand for long-term accident insurance, which has mechanisms of income coding and mental budget segregation.

In short, the psychological account theory in the field of economic management is widely used, particularly in providing the explanatory role in description of the structural variations between long-term accident insurance demand, which is of practical importance. Further studies in the field may also be conducted to investigate the particular mechanisms and impact of psychological accounts in a different situation.

3 Current Research Status

3.1 Chinese Research Status

Wang Dongni examined the psychological motivations driving consumers' buying behavior in the Chinese commercial health insurance market, noting that the market does not provide sufficient guidance on the consumer purchasing behavior and where there are flaws in the disclosure of information and explanations of product promotion [9]. Lack of awareness by consumers as regards their own health risks has caused the market to exhibit an imbalance between supply and demand. Also, Liu Qixiang et al. examined the effects of the various income sources on the attitudes towards investment risk based on the psychological accounts and established that bonus income has a significant effect on the risk tolerance in the case of investment, which implies that the risk of income may influence the acceptance and demand of insurance products by households [6]. In addition, Qin Hailin and Li Hui [7] relied on the data provided by the survey of China Household Finance Survey (CHIP2013) and survey of China Family Panel Survey (CFPS2018) and tested the instruments of housing demolition on household involvement in the financial markets using the instrumental variable approach [7]. The research has revealed the allocation of demolition compensation to motivate households to take more action in their financial market investments, which

demonstrate the strong impact of the psychological accounts in the household financial decision-making. In a study of the heterogeneous effects of boost behavior on the enhancement of insurance demand, Li Lutong and Mao Lei came up with a boost experiment founded on an appeal to the status quo and reliance on psychological explanations [10]. The outcome of the experiment indicated that status quo preference-based boost and psychological account-based boost are more effective in increasing the rate of insurance purchase among the groups having prior insurance purchase experience or high awareness of the insurance industry and groups having higher consumption levels respectively. Overall, psychological account theory can be successfully used to explain budget segregation and income coding processes and is a valuable theoretical basis on which to evaluate the intentions to buy insurance. Future studies can also provide more insight into the impact of psychological explanations on the decision-making process of households when purchasing long-term accident insurance products.

3.2 Current Status of International Research

The National Flood Insurance Program was introduced in 1968, by the United States under the National Flood Insurance Act. Nevertheless, according to government subsidies on the premiums of most people purchasing flood insurance (those who are owners of houses that were constructed before the program was set up), most residents in the flood-prone regions were unwilling to take an insurance cover. This observed phenomenon was in sharp contrast with the postulation of maximization of expected utility (or the conventional insurance demand theory) on the premise of a rational actor. This aberrant pattern of disaster discipline among the populations at risk of natural disasters was first described by Professor White in the year 1970. He subsequently served as a partner of psychologist Slovic, who was a relatively young researcher at the time and majored in the field of risk decision-making and decision science professor Kunreuther who had long studied the economics of natural disasters. They both aimed to synthesize psychological studies of judgments of probability and risk preferences along with the analysis of human behavior in the case of natural disasters [5]. It is a partnership that prompted researchers to start systematically exploring psychological and behavioral aspects of the insurance decision-making process.

Since Von Neumann and Morgenstem suggested an axiomatic theory of expected utility, researchers were slowly coming to the realization of the weaknesses of human rationality and subjective biases of judgment and decision-making [5]. This brought about the prospect theory and later development, cumulative prospect theory. Nonetheless, the two theories could only explain the insurance decision-making behavior albeit, incomplete since some market anomalies were not clarified. Subsequently, Krantz and Kunreuther made the multi-objective choice model that may explain most market anomalies, but unfortunately, this model had too many decision variables and too broad decision objectives and was rather a psychological model than an economic one, and was not as concise as an economic theory [5].

4 The Influence Mechanism of Psychological Account on the Demand of Long-term Accident Insurance for Family

Psychological accounts influence the demand for long-term accident insurance through three key mechanisms: risk perception, emotional cognition, and willingness expression.

4.1 Risk Perception

To begin with, it impacts demand, which is the concept of risk perception. Through psychological accounts, people define their evaluation of risks, which shapes the decisions made by individuals when purchasing insurance. When individuals interpret the risks using various accounts of the appropriateness of the risks using the psychological accounts, individuals develop various approaches to the risk associated with them. In her commentary on commercial health insurance, Wang Dongni noted that poor understanding of health risks among consumers, which is usually caused by the psychological description, can trigger overestimation/underestimation of risk, which ultimately affects their purchases of insurance [9]. This shows that there is a relationship between risk perception and the demand for long-term accident insurance.

4.2 Emotional Cognition

Secondly, the psychological accounts add emotional labels to the income structure and expenditure, which impacts the emotional cognition. The analysis of the effects of various mental accounts on the purchase decisions of the household in relation to insurance is the major factor of this study which is carried out when expanding. Psychological explanations can modify the judgment of insurance products by influencing the affective and value judgments of financial and consumption decisions. In withdrawal of money from various accounts, different emotional feelings are evoked, which influence buying behaviors. Under the condition of insurance which is perceived to form part of the basic security account, it becomes cheaper to the mind thus intensifying the willingness of the consumer to purchase. According to Wang Dongni, consumers who psychologically group insurance as necessities will take money out of what she referred to as a basic livelihood security account, which can easily ease the buying process [9]. On the other hand, when insurance is viewed as a luxury there will be a consideration of funds in the leisure consumption account, hence preventing purchases. This is the way emotional labels affect bargaining.

4.3 Expression of Will

In the end, it is the concurrence of risk perception and emotional evaluation, which make consumers decide to purchase insurance. Specific interventions of psychological account targeting targeting certain groups of people should be capable of making them purchase insurance directly. Psychological accounts influence ultimately whether the intentions to purchase insurance is translated into actual moving action by the way it

shapes the perceptions and attitudes that families have towards insurance. This is also substantiated by the study of Wang Dongni, who argued that the so-called psychological classification of insurance (when it is viewed as a necessity or luxury) is the primary factor predetermining whether families are ready to use funds to purchase insurance [9].

4.4 The Use of Psychological Accounting Theory in Shaping Family Willingness to Purchase Long-term Accident Insurance

Overall, achieving a greater propensity of domestic households to buy long-term accident insurance is associated with the change in the cognitive frameworks of the consumers, which is not based merely on the comparison of product cost-efficiency. This paper suggests that psychological account theory to successfully reduce psychological theory into the integrated regard of long-time accident insurance as a compulsory in additional family members as opposed to an optional insurance choice by redefining insurance account categories, geared towards various psychological forms of account income, maximizing the influence of the push factors in insurance choice and by nurturing special risk informing. The concept of redefining the classification of insurance in the mental model of consumers is designed to get them to switch the product enjoyment as being an optional luxury account of consumers to an essential and life security account. An example would be in the marketing and communications where long-term accident insurance should be closely associated with such rigid family policies as education of the children, asserting parents, and mortgage payment. Think about how to great premiums with the most indispensable daily expenses (e.g., children could save money on education fund, family emergency fund) instead of having them among other less-important things that people spend their money on such as travelling and entertainment.

Meanwhile, we must concatenate the disparity of various types of incomes on the mental account to provoke demand and create differentiated products.

With the boost mindset, A boost mindset can help to optimize the insurance purchase decision-making environment. By manipulating behavior, such tactics as simplification, default settings, and framing reactions can be used to reduce the cognitive and behavioral obstacles to insurance adoption .

In addition, the readiness of the residents to buy insurance can be enhanced through the reinforcement of insurance legislation by improving their transparency and standardization of the whole insurance process, which, to a certain degree, can make residents more willing to purchase insurance [11].

The essence of its strategy is aimed at reinventing the psychological frameworks of consumers instead of just comparing the cost-efficacy of products. To leverage the psychological account theory successfully, redefining the categories of insurance accounts, aligning them with a variety of psychological sources of income, maximizing the push factor in shopping behavior, and providing specific risk education prove to be effective instruments in using the theory. This will make long-term accident insurance not an "option" but a necessity in the psychological explanation of most households, thus methodically increasing the purchase intention.

5 Conclusion

In a comprehensive examination of the psychological account theory and its use in the household demand of long-term accident insurance, this paper brings to light ways in which psychological accounts control the family demand of long-term accident insurance through perceptions of risks, emotional cognitions as well as actions to be taken. The study has shown that psychological explanations not only change the perceptions of risk by the individuals but also indirectly affect the decision made in the house because of the emotional reactions and the decision-making changes. Further research topics to be conducted in the future are the differences in psychological accounts in the context of different cultures and devising measures to change the household knowledge and requirements in terms of long-term accident insurance with the help of educational programs and changes in policy frameworks.

Although this research has theoretically investigated the effects of mental accounts on household demand toward long-term accident insurance exposing the mechanism of risk perceptions, emotional thoughts and willingness to purchase long-term insurance, and offering relevant solutions, some gaps are still unanswered in this area. First, one of the ways in which a future study might proceed is to determine the role of mental accounts on insurance purchasing behavior in various cultural contexts. As an example, collectivist cultures may boost the demand for family-oriented insurance that would facilitate the importance of cultural influences. Second, as technology and social developments influence mental account creation, further research on the effects of these external environmental transformations on the household demand for long-term accident insurance should be conducted in the future. Also, the connections between mental accounts and other behavioral economics phenomena (time preference and loss aversion) should be addressed in more studies. The intricate associations that can be examined may bring fresh insights on household insurance decisions. Lastly, given that the focal point of this study is household, future research can extend to individual levels or general social groups, encompassing empirical surveys of the impact of the mental accounts in overall market demand of long-term accident insurance. Further exploration of such areas of research would not only broaden the applicability of the theory of mental account but also present scientific data to insurance companies to draw up more accurate marketing approaches.

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