Behavioral economics

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Abstract:
Behavioral economics has emerged as a prominent field within economics, providing valuable insights into the decision-making processes of individuals and the implications of their behavior on economic outcomes. This paper aims to present a comprehensive summary of key theories and concepts in behavioral economics, shedding light on the fundamental principles that underlie human decision-making.
Keywords: Behavioral economics, decision-making, rationality, bounded rationality, biases, risk preferences

1. What is Mental accounting?

1.1 Introduction

Richard Thaler, a famous behavioral sciences professor from the University of Chicago in 1980, pointed out the concept of mental accounting0. It holds great significance in the domain of Behavioral economics. Its basic characteristics include Hedonism editing and local accounts.

Mental accounting can clarify why the "Sunk cost effect" influences people when they make purchasing decisions. Thaler believes that the "prospect theory" developed by Professor Kahneman et al. may be an underlying factor that led to this influence (Daniel & Tversky, 1979). Besides, this influence may also be correlated with people's subconscious about the mental accounting system. People measure the consequences of consumption decisions by adding up past and present inputs as the total cost. This psychological process of financial management and budgeting in a classified way is how "Mental accounting" proceeds. This paper aims to explore how mental accounting affects consumer behavior for decision-making in behavioral economics.

1.2 Development History

When analyzing "performance experiment" in 1981, Daniel Kahneman and Tversky introduced the term "Mental accounting," indicating that people employed different mental accounting processes when they faced varied decision-making scenarios. Kahneman regards mental accounting as a process during which consumers make mental categorization, coding, accounting, evaluation, and budgeting of results, particularly financial results.

Professor Kahneman and Professor Tversky claimed 1984 that "Mental accounting" was more appropriately expressed by "mental account." Kahneman asserts that consumers assess the result of different consumption options when making decisions. The easiest approach is to assess various choices' benefits and losses (gains and losses). In this case, Kahneman hypothesized the "value function" and introduced the "decision weight" function to interpret how people inherently evaluate gains and losses.

In 1985, Professor Thaler, in his academic work "Mental Accounting and Consumer Behavior Choice," formally introduced the concept of "Mental accounting," conducting a structured analysis of Mental accounting in decision-making. Thaler believes individuals, families, and enterprise groups have potential or clear mental accounting systems suitable for them. In the economic decision-making, individuals' internal mental accounting systems usually follow a potential mental operation rule opposite to the economic operation rule. The psychological accounting approach of the mental accounting system differs from those of the mathematic and economic accounting systems. As a result, the mental accounting system usually influences decisions in an unforeseen way, leading to violations between individual decisions and the most basic reasonable economic law. To illustrate the opposition of Mental accounting to the Traditional economy, Thaler listed four classical phenomena and proposed the "non-substitutability" feature of Mental accounting.

In 1996, Tversky proposed that Mental accounting is a cognitive illusion. This cognitive illusion affects investors in the financial market, making them lose their rational attention to prices, thus resulting in irrational investment behavior.

Kivetz (1999) views Mental accounting as a psychological process of coding and classifying based on various wealth sources. During coding and classification, individuals pay much attention to the dimension of "importance." Some scholars interpreted "Mental accounting" based on the theory of behavior. People utilize a cognitive operating system to control their appraisal, recording,

and management of economic activities, which, however, caused unreasonable decisions (Ryan, 1999).

Saler, in his article "Mental Accounting Matters," published in 1999, summarized former studies on mental accounting in the past two decades. Thaler highlights three aspects of Mental accounting.

The first aspect includes understanding the results corresponding to different decisions and developing and assessing these results. The Mental accounting system assists individuals in comparatively analyzing the benefits and losses before and after they make decisions.

The second part involves classifying specific accounts, where funds are divided into different categories (housing, food, etc.) based on their source and expenditure. Consumption is sometimes subject to clear or unclear budgets for specific accounts. The third part involves the frequency of account evaluation and selection framework. Accounts can be weighed daily, weekly, or annually, with time limits that can be wide or narrow.

Thus, "Mental accounting" is a process in which people encode, classify, and assess results, particularly financial results in psychology. It discloses individuals' psychological cognitive processes when they make economic decisions.

2. Influencing factors of Mental accounting

Influenced by different factors, people's plans for their Mental accounting fall into the following three categories: first, they divide their income into different accounts according to different ways or different periods, with each account independent from others; second, they make different consumption tendencies based on different sources of income; The third scenario is to approach different amounts of income with different attitudes.

Different Mental accountings are affected by the source of money. For instance, individuals tend to place unexpected and hard-earned money in different accounts. Normal people do not go to the casino with their hard-earned ¥100000, but if they bet ¥100000 in Malaysia, the likelihood of going to the casino is much higher. People often have rigorous savings and investment plans for hard-earned project rewards but have different attitudes toward unexpected money (Richard, 1985).

The Mental accounting is also affected by the reference amount. For instance, a person who receives a ¥500 bonus at the end of the month is more likely to spend ¥400 purchasing a tie they have aspired to for a long time and use the ¥100 left as pocket money. But if they receive 5000 yuan, most people are not motivated to buy a ¥400 tie. Instead, for long-term reasons, they will deposit this wealth greater than their psychological preset in the bank. For another example, a sum of 10 yuan equals the two ¥5 in value, but because of Mental accounting, our cognition and behavior decisions are different. As one of the children, instead of giving a large amount of money once a year to honor their parents, it is better to give it to them in small amounts several times so that this cost can continue to play a role in daily life (Richard & Eric, 1990).

3. How to use Mental accounting

Thaler's theory of the 'framework of gain and loss' reveals that psychologically, people pursue emotional gratification to the utmost extent rather than the maximal utility of rational cognition. Thaler called this operation rule "Hedonism processing." Affected by Mental accounting, consumers always break the simplest economic rules in the decision-making process, leading to irrational consumption behaviors. Such behaviors focus on several psychological effects, such as the Sunk cost, non-substitution, and transaction utility effects. It is clear from these effects that Mental accounting, to a certain degree, affects people's consumption decisions. Therefore, we can consider starting from rational consideration and making better use of mental accounting to maximize our interests.

Thaler, the economist who first proposed the mental accounting phenomenon, once told a story about him. Once, he went to Switzerland to lecture, and Switzerland paid him well. He was very happy, and after giving the lecture, he took a trip there. The whole trip was very enjoyable, but Switzerland is the most expensive country in the world. My second lecture in the UK also paid well, so I went on another trip to Switzerland, but this time, I felt expensive and uncomfortable going anywhere. Why do you feel completely different when traveling to Switzerland and spending the same amount of money? It can be explained as follows: first, he placed his income and expenditure in Switzerland in the same account, and second, he put his earnings from other places in his Swiss account, resulting in a psychological illusion that he might be spending more.

Affected by Mental accounting, consumers take different views on their incomes and expenditures, making varied decisions and manifest different consumption preferences. At the same time, it unexpectedly influences a wide range of everyday decisions. When making investment decisions, investors will not only consider external factors such as market trends and the economic environment. Still, they will also be affected by internal factors, of which mental accounting is important. Impact 1: Risk

appetite. The risk preference of investors refers to their acceptance of risk. In investment, investors divide assets into different accounts based on their 33risk preferences. For example, investors may place high-risk, high-yield stocks in one account and low-risk, low-yield bonds in another. This grouping may affect investors' investment decisions, making them more inclined to invest in high-risk accounts. Impact 2: Cognitive bias. Cognitive bias refers to incorrect thinking and decision-making when people think about problems due to subjective experience and cognitive abilities limitations. In investment, cognitive bias may lead investors to separate the same type of asset into different accounts rather than categorizing it based on the characteristics of the asset itself. For example, investors may place stocks and bonds of the same company in different accounts because they believe this can reduce risk. But in fact, this grouping may lead investors to overlook the company's overall risk. Impact three: Emotional impact. Emotions have a significant impact on investors' decisions. In investment, investors may place the same type of asset in different accounts due to emotional fluctuations. For example, when the market experiences significant fluctuations, investors may transfer assets from their stock accounts to bond accounts to avoid losses. However, such decisions may lead investors to miss out on opportunities for market recovery.

4. Conclusion

The impact of Mental accounting on investors is complex. Investors should consider the actual situation, make rational decisions, and be independent thinkers to avoid its influence. Managing mindset and emotions is crucial. A stable mindset facilitates rational judgments and long-term investment success. In the broader context of behavioral economics, mental accounting reminds us that our financial decisions are not always rational. Our cognitive biases and psychological factors influence us, which impact how we perceive, allocate, and spend our resources. Recognizing these biases can empower individuals to make more informed choices and adopt strategies that align with their long-term goals. Overall, mental accounting offers valuable insights into human behavior in economics. By understanding its effects and actively managing our mindset, we can strive for more rational decision-making and enhance our financial outcomes. In a world where economic choices have far-reaching consequences, the awareness and application of behavioral economic concepts like mental accounting can contribute to a more informed and prosperous society.

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