Analysis of the Definition and State-of-Art Investigations for Mental Accounting

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Abstract: Mental accounting theory is an important concept in behavioural economics, formally proposed by Richard Thaler in 1985. This theory reveals the psychological process of classifying, encoding, and evaluating financial outcomes in economic decision-making, explaining why individuals often deviate from the "rational person" assumption in behaviours, e.g., consumption and investment. Based on the analysis, this paper systematically summarizes the concept, classification, related theories, and applications of mental accounting in areas such as consumer behaviour and wealth management, while also exploring future research directions. To be specific, mental accounting is widely used in economic decision-making, and it is really important factor which force the final decision. The two decision tendencies reflect the difference in risk attitude when people face different mental accounts。Risk-oriented decision making: People tend to take higher risks in pursuit of potentially higher returns, usually in "profit accounts," e.g., when investing or gambling. Conservative decision making: People are more risk-averse and tend to choose safe, low-risk options, usually in "loss accounts" or "protection accounts," such as savings or insurance.

1 INTRODUCTION

Mental accounting, a cornerstone concept in behavioural economics, refers to the cognitive process through which individuals categorize, evaluate, and manage their financial resources in distinct mental "accounts" based on subjective criteria such as source, purpose, or emotional significance (Thaler, 1985). This phenomenon challenges traditional economic theories, which assume that money is fungible and that individuals make rational, utility-maximizing decisions. Instead, mental accounting reveals that people often treat money differently depending on its origin or intended use, leading to behaviours that may appear irrational or inconsistent (Thaler, 2017).

The implications of mental accounting extend across various domains, including consumer behaviour, investment decisions, and financial planning. For instance, individuals tend to segregate funds into categories such as "savings," "entertainment," or "emergency expenses," each governed by unique rules and emotional associations (Xu & Ma, 2023). This compartmentalization can lead to suboptimal financial decisions, such as overspending on discretionary items while neglecting essential savings or investments (Thaler, 2017). Moreover, mental accounting influences how people perceive gains and losses, often prioritizing short-term emotional satisfaction over long-term financial well-being (Kahneman & Tversky, 1979; Prelec & Loewenstein, 1998).

In the context of consumer behaviour, mental accounting plays a pivotal role in shaping purchasing decisions. Studies have shown that individuals are more likely to spend "windfall" money, such as bonuses or lottery winnings, on luxury items or non-essential goods, whereas they are more cautious with income derived from regular employment (Thaler, 1985; Hirst et al., 1994; Bonner et al., 2014). This behaviour is driven by the emotional labelling of funds, where unexpected gains are mentally categorized as "extra" and thus more expendable (Xu & Ma, 2023). Similarly, mental accounting affects how consumers respond to pricing strategies, discounts, and payment methods, often leading to irrational choices that deviate from traditional economic predictions (Thaler, 2017).

In the realm of investment, mental accounting can significantly impact risk tolerance and portfolio management. Investors often allocate funds to different mental accounts based on perceived risk

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levels, such as "safe" investments for retirement savings and "risky" investments for speculative gains (Thaler, 2017). This compartmentalization can result in an inefficient allocation of resources, as individuals fail to consider their overall financial portfolio holistically (Shefrin & Statman, 1985). Furthermore, mental accounting can exacerbate behavioural biases, such as loss aversion and the disposition effect, where investors hold onto losing investments for too long and sell winning investments too quickly (Odean, 1998).

Despite its widespread influence, mental accounting remains an underexplored area in behavioural finance and consumer psychology. Recent research has begun to uncover the nuanced ways in which cognitive and emotional labels shape financial decision-making, particularly among younger demographics and in the context of digital payment systems (Xu & Ma, 2023; Silva et al., 2023; Xia & Madni, 2024). However, there is a pressing need for further investigation into how mental accounting interacts with cultural, social, and technological factors to influence economic behaviour.

This paper aims to provide a comprehensive review of the existing literature on mental accounting, synthesizing insights from psychology, behavioural economics, and consumer research. By examining the theoretical foundations, empirical evidence, and practical implications of mental accounting, this study seeks to enhance the understanding of how individuals manage their financial resources and make decisions in complex, real-world contexts. Ultimately, this research contributes to the broader discourse on behavioural finance and offers actionable insights for policymakers, financial advisors, and consumers seeking to mitigate the adverse effects of mental accounting on financial well-being.

Recent research on mental accounting highlights its role in shaping financial decisions and consumer behaviour. Studies emphasize the non-fungibility of funds, where individuals treat money differently based on its source or purpose, leading to irrational spending patterns. Advances in digital payment systems have further influenced mental accounting, with users categorizing expenses more precisely but also facing risks of overspending. Additionally, research explores how mental accounting affects investment strategies, often resulting in inefficient portfolio management due to compartmentalized risk perceptions. Future studies aim to integrate cultural and technological factors to better understand its long-term impacts.

In order to learn well the inherit connections, this paper aims to summarize the theoretical development, classification, and practical applications of mental accounting, as well as discuss future research directions. The rest part of the paper is organized as follows. The Sec. 2 will set forth the definition and the classification of mental accounting. The Sec.3 will give some theories that are closely related to the mental accounting. The Sec.4 will give some examples about the application of mental accounting. Last but not least, the Sec.5 will show the limitation of the research and the future development direction.

2 CONCEPT AND CLASSIFICATION OF MENTAL ACCOUNTING

2.1 Definition of Mental Accounting

Mental accounting refers to the psychological process of classifying, encoding, and evaluating economic outcomes. Thaler posits that individuals categorize funds from different sources into distinct "accounts" and manage them differently based on the nature of these accounts. For example, salary income is often viewed as a "hard-earned" account, while lottery winnings are categorized as "windfall gains."

2.2 Classification of Mental Accounting

Mental accounting is primarily classified based on the source of wealth and expenditure items. By source of wealth, it can be divided into salary income accounts, investment income accounts, business income accounts, and windfall income accounts. By expenditure items, it can be categorized into basic living expense accounts, entertainment expense accounts, emotional expense accounts, and communication expense accounts.

Money is often categorized based on its origin, such as "earned income" versus "windfall gains." For instance, individuals are more likely to spend windfall money, such as lottery winnings or bonuses, on luxury items, while treating earned income more cautiously. This behavior reflects the emotional labeling of funds, where unexpected gains are perceived as "extra" and thus more expendable. A classic example is the "windfall effect," where people tend to spend unexpected money more freely than regular income. Similarly, research shows that individuals are less likely to save windfall gains

compared to earned income, highlighting the non-fungibility of mental accounts.

Mental accounts are also organized by their intended use, such as "savings," "entertainment," or "retirement funds." This classification helps individuals manage their finances by assigning specific budgets to each category. However, it can lead to suboptimal decisions, such as overspending on entertainment while neglecting long-term savings. For example, people may allocate a fixed amount to a "vacation fund" and spend it entirely on leisure, even if they have pressing financial obligations. This compartmentalization often results in inefficient resource allocation, as individuals fail to consider their overall financial portfolio holistically.

Emotional significance plays a crucial role in mental accounting. Money allocated to "charitable donations" or "gifts" is often treated with greater emotional weight than funds for routine expenses. This classification can influence spending patterns, as individuals may prioritize emotionally satisfying expenditures over financially prudent ones. For instance, people are more likely to spend money on gifts for loved ones during holidays, even if it means exceeding their budget. This emotional attachment to certain accounts can lead to irrational financial behaviors, such as overspending on emotionally charged items while neglecting essential expenses.

3 RELATED THEORIES OF MENTAL ACCOUNTING

3.1 Non-Fungibility Theory

The non-fungibility theory suggests that funds in different mental accounts are not interchangeable. For instance, salary income and windfall income are treated differently, with the former being more valued.

3.2 Budget Control Theory

The budget control theory posits that individuals set budgets for different mental accounts to regulate spending behavior. However, in some cases, budget control may instead promote hedonic consumption.

3.3 Flexible Mental Accounting Theory

The flexible mental accounting theory challenges the absoluteness of non-fungibility and budget control, arguing that certain expenditures are flexible and can be allocated to multiple accounts, thereby weakening the effects of budget control.

4 APPLICATIONS

4.1 Applications of Mental Accounting in Consumer Behaviour

Mental accounting influences consumers' purchasing decisions. For example, consumers tend to use "windfall gains" for hedonic consumption, while allocating salary income to essential purchases. Mental accounting, a concept rooted in behavioral economics, has gained significant attention in consumer behavior research, particularly in the context of digitalization and evolving consumption patterns. Recent studies (post-2020) have explored how mental accounting influences consumer decision-making, especially in areas such as online shopping, payment methods, and impulsive purchases. For instance, research highlights that consumers tend to categorize unexpected income (e.g., bonuses or discounts) into "windfall accounts," leading to increased spending on non-essential items. This behavior underscores the non-fungibility of mental accounts, where money is treated differently based on its source or intended use.

Another key area of focus is the role of mental accounting in payment preferences. Studies reveal that consumers are more likely to opt for installment payments or credit options when purchases are framed as part of a "future expense account," reducing the perceived immediate financial burden. Additionally, the rise of digital payment platforms has further complicated mental accounting, as consumers often struggle to track expenses in real-time, leading to overspending and budget mismanagement.

In the context of the spending of university students, mental accounting has been used to analyze irrational spending behaviors, such as excessive borrowing or luxury consumption. For example,students in university often allocate funds to "emotional accounts" for social activities or gifts, prioritizing short-term satisfaction over long-term financial stability.

Overall, these studies demonstrate the profound impact of mental accounting on consumer behavior, offering valuable insights for marketers and policymakers aiming to design effective strategies and interventions. Future research could further explore the interplay between mental accounting, cultural factors, and emerging technologies to

enhance its practical applications. Mental accounting plays a significant role in overconsumption. Hedonic mental accounts are more likely to lead to overconsumption, whereas practical and conservative mental accounts tend to curb such behavior.

4.2 Applications of Mental Accounting in Investment Decisions

Individual investors in China exhibit distinct mental accounting characteristics in their investment decisions. For instance, investors may categorize conservative investments (e.g., bonds) and high-risk investments (e.g., stocks) into separate mental accounts, influencing their risk preferences and investment strategies.

The existence of mental accounting may lead to biases in investment decisions. For example, losses in one account may affect decisions in other accounts, even if such decisions are objectively irrational. Mental accounting, a concept rooted in behavioral economics, has been increasingly applied to understand investment decisions, particularly in the context of individual investors. Recent studies (post-2020) highlight how mental accounting influences risk preferences, asset allocation, and decision-making biases in investment scenarios.

One key finding is that investors often categorize their funds into distinct mental accounts, such as "safe investments" (e.g., bonds or savings) and "risky investments" (e.g., stocks or cryptocurrencies). This compartmentalization can lead to suboptimal portfolio management, as investors may over-allocate to high-risk assets in one account while being overly conservative in another, ignoring the overall risk-return balance.

Another significant area of research focuses on the impact of mental accounting on loss aversion and the disposition effect. Investors tend to hold onto losing investments for too long, hoping to recover losses, while selling winning investments prematurely to lock in gains. This behavior is exacerbated by mental accounting, where losses and gains are evaluated within isolated accounts rather than the broader portfolio context.

Additionally, studies have explored how mental accounting interacts with digital investment platforms. The ease of tracking and categorizing investments online has both positive and negative effects. While it enhances transparency, it can also reinforce compartmentalized thinking, leading to irrational decisions such as over-trading or neglecting diversification.

In summary, mental accounting plays a critical role in shaping investment decisions, often leading to biases and inefficiencies. Future research could further investigate how cultural factors and technological advancements influence mental accounting in investment contexts, providing deeper insights for both investors and financial advisors.

5 LIMITATIONS FUTURE DIRECTIONS IN MENTAL ACCOUNTING RESEARCH

Future research could further explore the application of mental accounting in emerging fields such as the digital economy and virtual currencies, as well as cross-cultural differences in mental accounting. Mental accounting theory has broad application prospects in consumer behavior analysis, wealth management, and policy formulation. Future empirical studies could further validate its effectiveness in different scenarios.

Mental accounting, a cornerstone of behavioral economics, has significantly advanced the understanding of how individuals categorize, evaluate, and manage financial resources. However, despite its extensive applications in consumer behavior, investment decisions, and financial planning, the field faces several limitations that hinder its broader applicability and theoretical development. One major limitation is the predominance of research conducted in Western, educated, industrialized, rich, and democratic (WEIRD) societies, which limits the generalizability of findings to diverse cultural and socioeconomic contexts. Additionally, current research primarily focuses on individual decision-making, neglecting the role of group or collective mental accounting, such as in household budgeting or organizational financial planning. The rapid evolution of digital payment systems and cryptocurrencies has also not been fully integrated into mental accounting studies, leaving a gap in understanding how technological advancements influence financial categorization and decision-making. Furthermore, most studies concentrate on short-term behaviors, such as impulse purchases, while the long-term effects of mental accounting, such as its impact on retirement planning and wealth accumulation, remain underexplored. Theoretical fragmentation is another issue, as mental accounting research is often siloed within psychology, behavioral economics, and consumer behavior, lacking a unified framework to comprehensively

explain its cognitive and emotional mechanisms. Finally, the ethical implications of leveraging mental accounting biases in marketing and policy design require further scrutiny, as current research does not provide sufficient guidelines to ensure these applications benefit society without exploiting consumers. Addressing these limitations through more diverse, interdisciplinary, and long-term studies could significantly enhance the theoretical and practical relevance of mental accounting.

6 CONCLUSIONS

To sum up, the mental accounting is influencing a lot in the economic decisions. Mental accounting theory provides a crucial perspective for understanding irrational behaviours in economic activities. By summarizing its concept, classification, and related theories, this paper highlights the applications of mental accounting in consumer behaviour and investment decisions, as well as future research directions, offering valuable insights for both theory and practice in related fields. Overall, these results pave a path to summarize the knowledge about the mental accounting.

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