THE COGNITIVE BIASES AND FINANCIAL DECISION MAKING: AN OVERVIEW STUDY OF SPENDING DECISIONS

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Abstract

Consumer spending behaviour holds critical position in behavioural finance, as decision patterns shape financial outcomes for individuals and the broader economy. Spending decisions are influenced by cognitive biases, heuristics and macroeconomic conditions. The primary goal of this analysis is to find out the role of heuristic techniques and cognitive biases in spending decision-making and to suggest directions for future studies. In this research we have adopted a literature review method to analyse the primary behavioural finance biases and their influence on spending decisions. The paper presents an overview of how heuristic approaches and cognitive biases shape spending behaviour among consumers. Findings from concept analysis indicate that, in recent times, consumers increasingly aim to minimize spending and maximize savings, often relying on heuristics that can result in consistent mistakes in decision-making. From a practical perspective, this study emphasizes the importance of improving financial literacy, which is important for making sound spending decisions in today's market and also for reducing extra dependency on potentially misleading heuristics. This study addresses the combined effects of heuristic techniques and cognitive biases on spending decisions, offering recommendations for future research. It contributes to growing body of literature that applies behavioural finance perspective to consumer financial behaviour.

Keywords: Heuristic Techniques, Cognitive Biases, Spending Decision-Making, Traditional Finance, Behavioural Finance.

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Introduction

Behavioural finance explores how psychological factors, particularly cognitive biases and heuristic techniques, influence financial decision-making. It moves beyond the traditional view of purely rational economic agents, recognising that individuals often rely on mental shortcuts and are subject to systematic errors in judgement. Spending decisions, in particular, are rarely based solely on objective analysis; they are shaped by personal perceptions, emotional influences, and environmental contexts.

In practice, decision-making involves selecting one option from several alternatives, a process influenced by the decision-maker's financial goals, risk tolerance, socio-economic background, and access to information. In today's dynamic and competitive market environment, consumers must navigate a complex mix of personal priorities and external pressures. The growing emphasis on saving, budget optimisation, and resource allocation has made understanding spending behaviour more important than ever.

Cognitive biases—such as overconfidence, anchoring, mental accounting, and availability bias can distort spending decisions, leading to overconsumption, under-saving, or suboptimal allocation of resources. Similarly, heuristic techniques, while useful for simplifying complex financial choices, can sometimes produce misleading outcomes when applied without critical evaluation.

By acknowledging these biases and recognising the role of heuristics in spending behaviour, individuals can improve their decision-making processes, reduce costly errors, and better align their spending patterns with long-term financial objectives. Enhancing financial literacy is therefore a crucial step toward mitigating the adverse effects of cognitive biases and fostering more rational, informed spending decisions.

Literature Review

Cognitive biases play a critical role in shaping financial decision-making, particularly in spending behaviour. Behavioural finance research has shown that individuals often deviate from rational decision-making models due to mental shortcuts and emotional influences, resulting in suboptimal spending choices (Tversky & Kahneman, 1974). These biases can manifest in day-to-day financial behaviour, leading consumers to overspend, misallocate resources, or fail to meet savings goals (Thaler, 1985).

In the Indian context, consumer spending decisions are increasingly shaped by a combination of socio-economic status, peer influence, and market stimuli, alongside cognitive distortions. Sinha and Uniyal (2005) observed that spending patterns are often influenced by heuristic-driven biases, such as anchoring to initial prices or relying excessively on past spending habits, which can hinder rational financial planning. Arianti (2018) emphasised the need for consumers to actively recognise and minimise these biases to avoid misjudgements in both short-term and long-term financial choices.

A lack of financial literacy compounds the impact of cognitive biases on spending. Subramaniam & Velnampy (2017) noted that many individuals underestimate the importance of structured budgeting and instead focus primarily on income generation, neglecting deliberate allocation of expenses. This neglect often results in impulsive or socially driven spending behaviour. Moreover, psychological factors—such as optimism bias, loss aversion, and herd mentality—frequently drive consumers to make spending decisions that are inconsistent with their financial goals (Abul, 2019).

Experience level also shapes susceptibility to specific biases. Arianti (2018) found that less experienced decision-makers are more prone to representativeness bias, relying on stereotypical spending patterns, while those with greater financial exposure may still fall victim to biases such as overconfidence and the gambler's fallacy in managing budgets. Gender dynamics also play a role: Kansal (2013) reported that although male and female consumers often face similar spending pressures, their approaches to expenditure can differ, with women displaying greater caution in certain contexts—though economic instability can diminish these differences.

Heuristic biases, including availability bias, anchoring, and overconfidence, have been shown to distort consumer perceptions of value and necessity in purchase decisions (Saeed, 2019). Such biases often lead individuals to overestimate the affordability of discretionary spending or to underestimate the long-term impact of small, recurring expenses. Stephens (2003) further highlighted that consumer spending patterns often exhibit under-reaction to gradual financial strain and over-reaction to sudden changes in income or prices, reflecting the asymmetric nature of behavioural responses in spending.

Overall, the literature suggests that understanding the interplay between cognitive biases and heuristic techniques is essential for improving consumer spending decisions. By integrating behavioural insights with targeted financial literacy initiatives, it is possible to mitigate the negative effects of these biases and promote more rational, goal-oriented financial behaviour.

What is Behavioural Finance

Behavioural Finance emerged as a response to the limitations of traditional finance theories, which assumed that individuals act rationally, have perfect information, and always seek to maximise their economic utility. By the late 20th century, researchers began to recognise that real-world decision-making, including spending choices, is often influenced by cognitive limitations, emotions, and social factors (Venezia, 2018). The field gained significant momentum in the mid-1980s, with scholars integrating insights from psychology and economics to explain deviations from rational behaviour observed in both investment and consumption contexts.

Pioneering work by Tversky and Kahneman on heuristics and biases demonstrated that individuals rely on mental shortcuts—such as representativeness, availability, and anchoring—that can systematically distort judgement and lead to suboptimal financial outcomes, including excessive spending or under-saving (Tversky & Kahneman, 1974). Similarly, Thaler's concept of mental accounting (1985) shed light on how individuals mentally separate money into different categories, influencing their spending priorities in ways that often defy rational economic principles.

Over time, behavioural finance has expanded beyond investment markets to address broader aspects of personal finance, including budgeting, credit usage, and discretionary spending patterns. As markets have become more complex and consumer credit more accessible, the role of behavioural biases in everyday financial decisions has grown, making the study of spending behaviour a critical area for both researchers and policymakers. Today, behavioural finance is recognised not only as an academic discipline but also as a practical framework for understanding and improving individual financial well-being.

Core Principles of Behavioural Finance

The foundations of classical economics built around the concept of the "economic man" or homo economicus assume that individuals are rational actors who process all available information objectively and make decisions solely to maximise their self-interest (Pompian, 2011). While this framework provided the basis for traditional financial models, real-world observations revealed persistent gaps between predicted and actual behaviour. These gaps are particularly evident in spending decisions, where individuals often act in ways that undermine their long-term financial goals.

Behavioural finance challenges the notion of perfect rationality by acknowledging the influence of psychological biases, emotional responses, and contextual factors on decision-making. For instance, loss aversion can cause individuals to delay necessary spending for fear of reducing their available resources, while overconfidence may lead to overspending under the belief that future income will cover current expenses. Social pressures and marketing cues can further trigger herd behaviour, prompting consumers to make purchases that do not align with their needs or budgets (Statman, 1999).

The integration of cognitive psychology into financial theory has not only helped identify these biases but also offered strategies to mitigate them such as promoting financial literacy, encouraging reflective decision-making, and designing choice architectures that guide individuals toward more sustainable spending patterns. Understanding these behavioural tendencies is essential for developing interventions that can help individuals allocate resources effectively, avoid costly mistakes, and achieve greater financial stability. In essence, behavioural finance provides the tools to bridge the gap between financial theory and the realities of human behaviour, especially in the context of spending decisions.

Definition of Behavioural Finance

There are several definitions of behavioural finance, but they share a common focus on the psychological influences that shape financial decisions. Lintner defines it as the study of how individuals interpret and act on information when making investment or spending choices, while Olsen (1998) describes it as understanding and predicting the market effects of psychological decision-making without labelling behaviour as strictly rational or irrational. Although there is no single unified theory, behavioural finance explains why people often make inconsistent decisions due to cognitive biases and heuristics, which can significantly affect spending behaviour.

Principles and Implication of Behavioural Finance

The core principle of behavioural finance is that financial decisions are influenced not only by objective information but also by cognitive biases, emotions, and social factors. Unlike traditional finance, which assumes rational decision-making, behavioural finance recognises that individuals often rely on heuristics mental shortcuts that can lead to systematic errors.

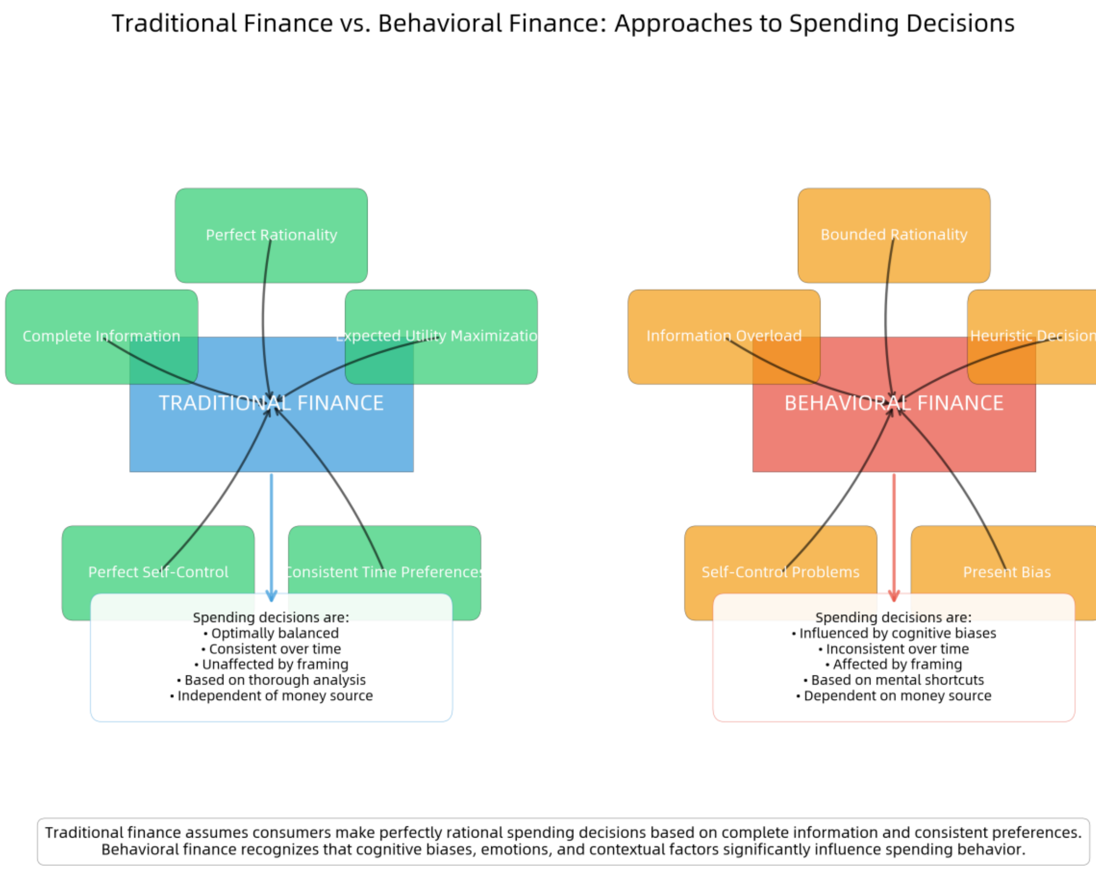

Figure 1

Comparison of Traditional Finance and Behavioural Finance Models.

Note. Figure created by the author.

This fundamental contrast between traditional and behavioural finance models helps explain the discrepancy between theoretical financial behaviour and actual consumer spending patterns. As illustrated in the figure above, traditional finance assumes perfect rationality, complete information, and consistent decision-making, while behavioural finance recognizes bounded rationality, information overload, and the prevalence of heuristic decision-making processes.

Heuristic Biases in Consumer Spending Decision

In daily life, people often simplify complex financial choices by relying on mental shortcuts, or heuristics. While these quick judgments can save time and effort, they are not always accurate and may lead to inefficient spending patterns. Consumer behaviour is rarely driven by pure rationality; instead, it is shaped by a mix of cognitive tendencies and emotional responses that can be difficult to separate.

Many individuals base their decisions on similarities to past experiences, assuming that because a previous purchase turned out well, a similar product will offer the same satisfaction. Others show high confidence in their spending choices, believing they understand prices or quality better than they actually do, which sometimes results in unnecessary or overpriced purchases.

Another common tendency is to focus too heavily on a specific reference point, such as an original price or a past discount, even when better options exist. People may also expect that past patterns of spending or saving will "balance out" over time, leading them to justify risky or impulsive purchases. In addition, decisions are often influenced by the most recent or memorable information — such as an advertisement, a friend's opinion, or a viral review — even when this information is incomplete or biased.

These subtle but powerful tendencies demonstrate how heuristics can distort everyday spending choices, often without individuals realizing it, and highlight the importance of awareness in making more balanced financial decisions.

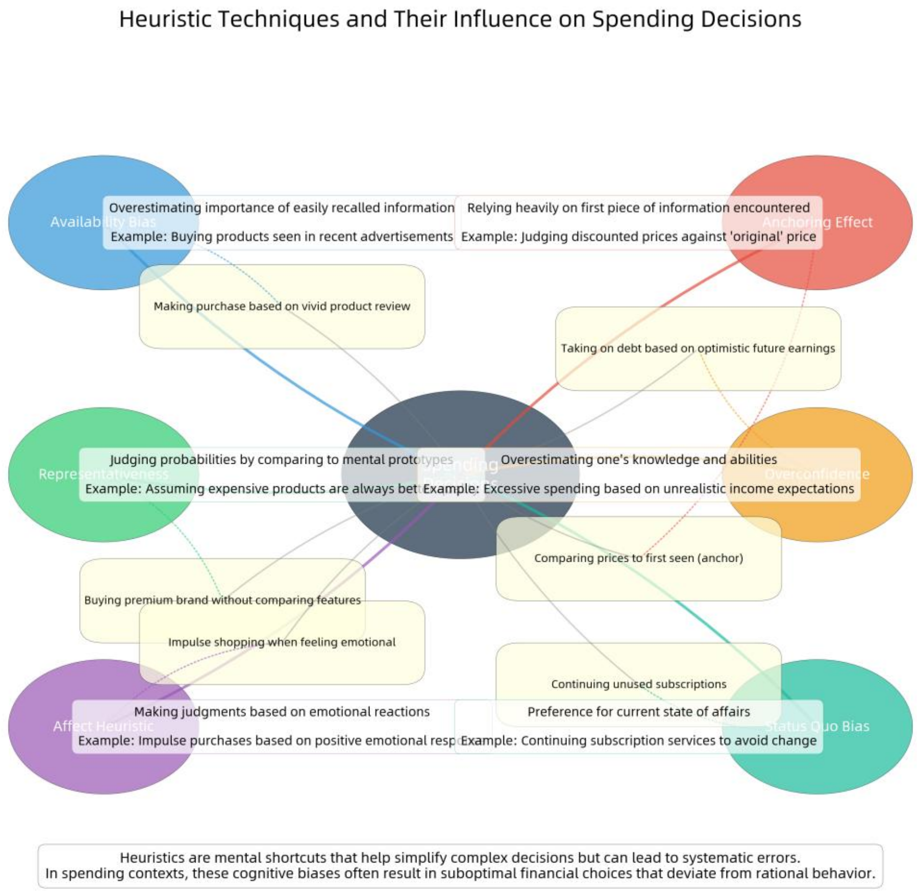

Figure 2

Heuristic Techniques and Their Influence on Spending Decisions.

Note. Figure created by the author

The diagram above illustrates the complex interplay between various heuristic techniques and their influence on spending decisions. Each heuristic—from availability bias to status quo bias—creates different pathways of influence on consumer purchasing behaviour. Understanding these connections is critical for developing strategies to mitigate their potentially negative effects on financial well-being.

Heuristic Techniques and their Influence on Spending Decision

When making spending decisions, individuals often face uncertainty and limited information. In such situations, they tend to rely on heuristic techniques mental shortcuts or "rules of thumb" to simplify the process. These techniques help reduce decision-making complexity by offering quick estimates or guiding choices without extensive analysis. While heuristics can save time and effort, they can also result in systematic errors that lead to overspending or suboptimal purchasing choices.

Common spending-related heuristics include overconfidence (believing one's financial judgment is better than it actually is), representativeness (judging a purchase based on stereotypes or prior impressions), availability (relying on recent or vivid information, such as advertisements), anchoring (being influenced by an initial price or discount), and mental accounting (treating money differently based on its source or intended use).

Studies have shown that these biases significantly influence consumer spending behaviour. For example, price anchoring can make buyers perceive discounted items as better deals than they actually are, while mental accounting may encourage unnecessary purchases when money is seen as a "bonus" or windfall. Although these shortcuts may help consumers feel more confident in their decisions, they often lead to choices that deviate from rational financial planning.

Anchoring Bias and Pricing Strategies

Anchoring bias plays a particularly influential role in retail pricing strategies. Retailers often display an original "reference price" alongside a discounted sale price to create the impression of a bargain, regardless of the product's actual value. For example, furniture stores might mark items with artificially high "regular" prices that are perpetually discounted, creating an illusion of savings. Similarly, luxury brands may introduce extremely high-priced items to make their standard expensive offerings seem more reasonable by comparison.

Research by Ariely et al. (2003) demonstrated this phenomenon when they asked participants to write down the last two digits of their social security number before bidding on various items. Those with higher numbers consistently bid 60-120% more than those with lower numbers, showing how arbitrary initial figures can "anchor" subsequent valuations.

Availability Bias in Consumer Purchases

The availability bias leads consumers to make decisions based on information that is most readily available or memorable, rather than considering all relevant data. This explains why consumers often rush to purchase products featured in recent advertisements or those recommended by friends, even if more suitable alternatives exist.

A notable example is the surge in bottled water purchases following media coverage of water contamination incidents, even in areas with perfectly safe tap water. Similarly, consumers frequently favor brands with memorable advertising campaigns over potentially superior products with less prominent marketing. The COVID-19 pandemic provided numerous examples of availability bias, as widely shared images of empty store shelves led to panic buying of toilet paper and cleaning supplies, despite no actual supply chain issues for these products.

Cognitive Biases role in Spending Decision Making

The notion of cognitive bias—originally introduced by Kahneman and Tversky (1972)—describes consistent tendencies to diverge from rational judgment within the decision-making process. In the context of personal finance, cognitive biases play a substantial role in shaping consumer spending choices, challenging the traditional assumption that individuals always act rationally and base their decisions on complete information.

Cognitive biases such as overconfidence, representativeness, availability, anchoring, and mental accounting can influence purchasing behaviour in significant ways. For instance, overconfidence may lead individuals to underestimate the risk of overspending, while availability bias can cause them to prioritize recent promotions or advertisements over actual need. Similarly, anchoring on initial price tags or "original" prices can distort perceptions of value, leading to unnecessary purchases.

Research across consumer behaviour studies consistently finds that these biases drive deviations from optimal spending patterns. Consumers often rely on heuristics to simplify choices in complex marketplaces; however, this reliance can result in decisions that favour short-term satisfaction over long-term financial health. Although such mental shortcuts reduce the cognitive load of decision-making, they can ultimately undermine budget discipline and financial planning if left unchecked.

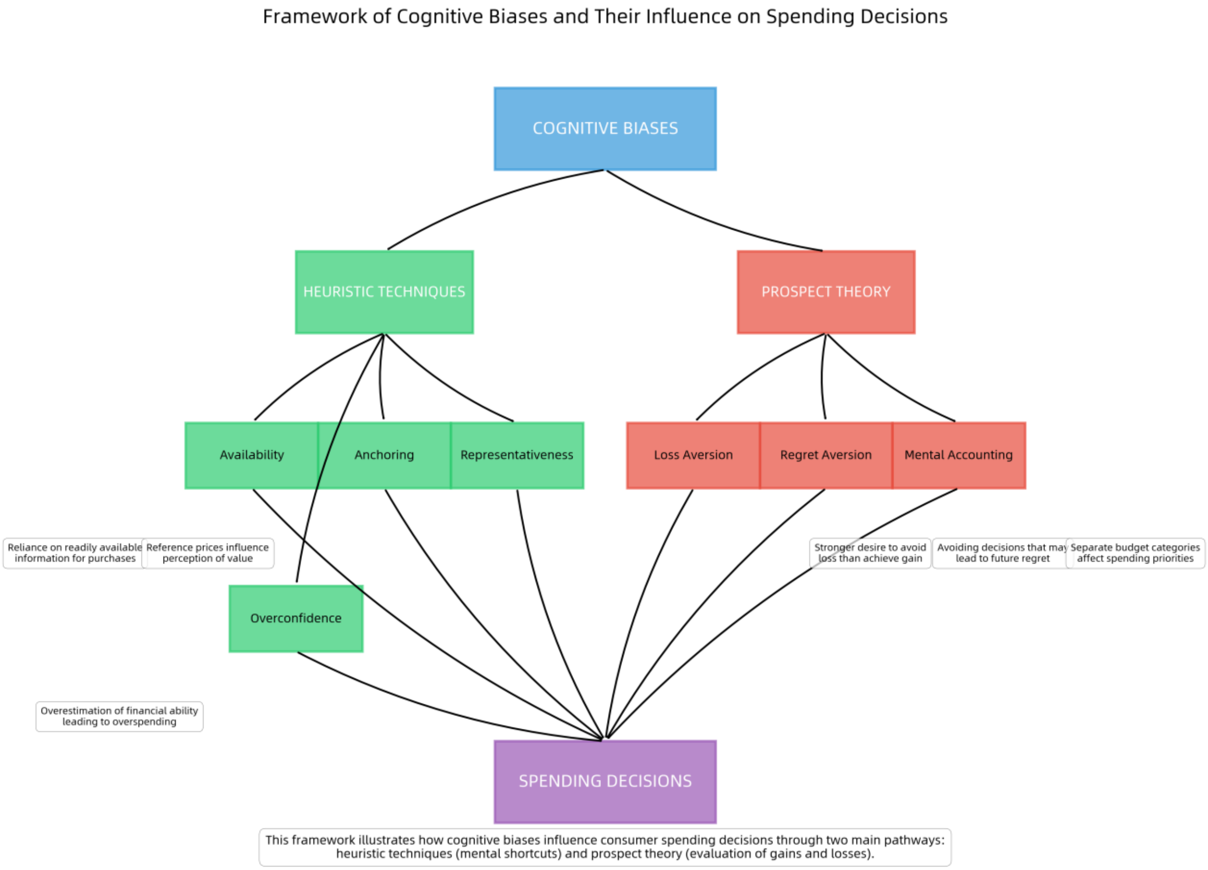

Figure 3

Framework of Cognitive Biases and Their Influence on Spending Behaviour.

Note. Self-generated diagram

This comprehensive framework illustrates how various cognitive biases influence spending decisions through two primary pathways: heuristic techniques and prospect theory. The visual representation helps identify the specific mechanisms through which these psychological factors affect financial decision-making and suggests potential points for intervention to improve spending choices.

Prospect Theory and Spending Decision

In the context of consumer behaviour, Prospect Theory suggests that individuals experience loss aversion—the pain of losing money (or overpaying) is felt more intensely than the pleasure of saving an equivalent amount. For example, a shopper might go out of their way to save ₹200 on a small purchase but ignore a similar saving opportunity on a more expensive item, because the perception of value changes with the context.

Furthermore, mental framing plays a critical role: discounts framed as "loss avoidance" ("Don't miss out on ₹500 off") can be more persuasive than those framed as "gains" ("Save ₹500"). Consumers may also take higher risks to avoid perceived losses, such as buying unnecessary items simply to use an expiring coupon or free shipping threshold.

Thus, Prospect Theory highlights that spending decisions are often guided by psychological perceptions of value and loss, rather than purely rational cost-benefit analysis.

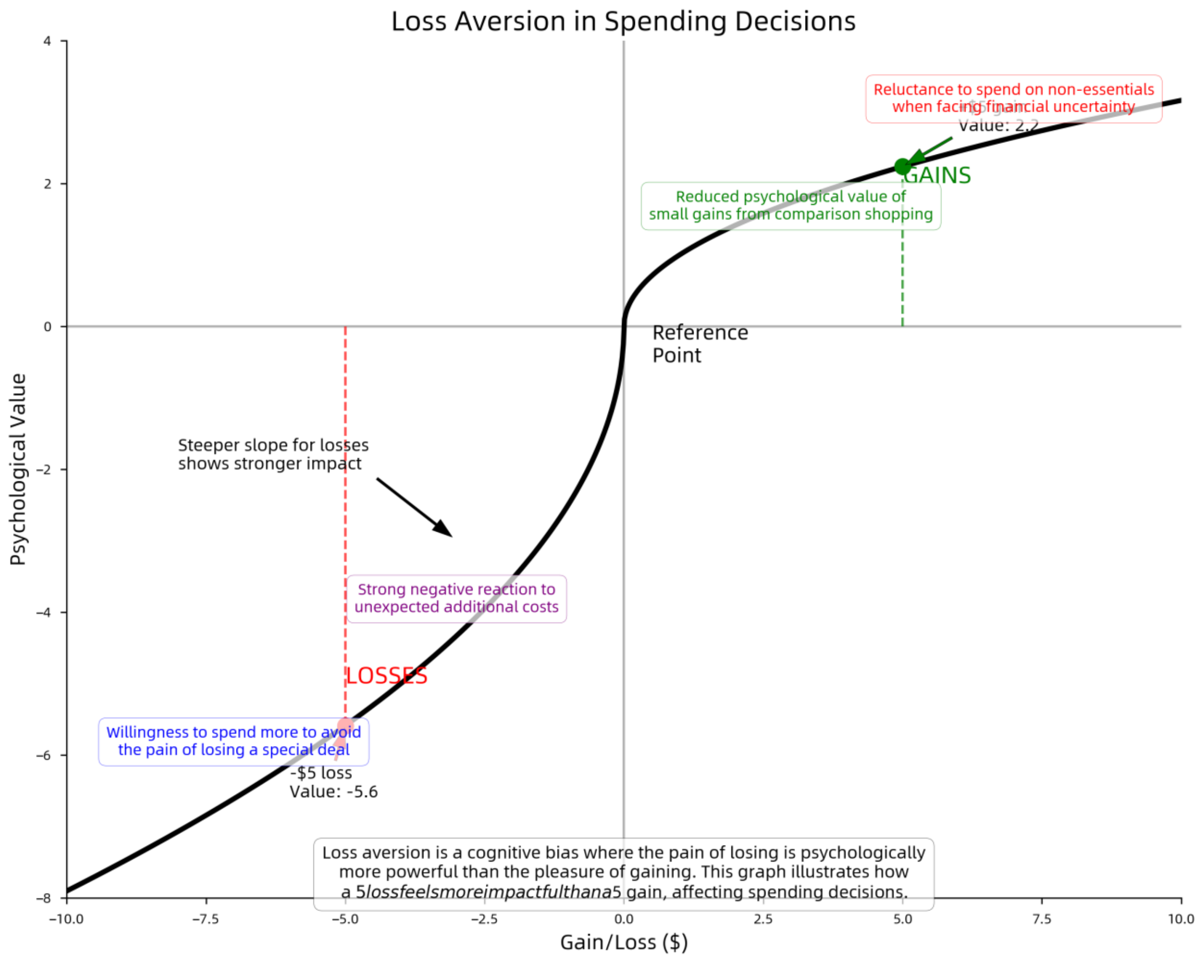

Figure 4

Loss Aversion in Spending Decisions

Note. Figure created by the author

The value function curve illustrates how consumers perceive gains and losses asymmetrically. The steeper slope in the loss domain demonstrates that the psychological impact of losing ₹5 is substantially greater than the pleasure derived from gaining ₹5—a fundamental insight that explains many seemingly irrational spending behaviours.

Key Behavioural Insights in Spending Decision

1. Loss aversion in spending

Loss aversion, a concept from Prospect Theory, suggests that people feel the pain of losing money more strongly than the satisfaction of gaining an equivalent amount. In spending decisions, this often leads consumers to make choices aimed at avoiding perceived losses, even if it means overspending. For example, shoppers may buy unnecessary items just to "avoid losing" a discount or a deal, or they may pay extra for a "money-back guarantee" even when the risk is minimal. This tendency can result in higher expenses and less rational financial planning.

A classic example of loss aversion in consumer behaviour can be observed in the "buy one, get one free" (BOGOF) promotions. These offers are particularly effective because consumers perceive not taking advantage of the "free" item as a loss, even if they had no intention of purchasing two items initially. Similarly, limited-time offers create a sense of urgency by framing the expiration of a deal as a potential loss, motivating consumers to make purchases they might otherwise delay or avoid altogether.

Research by Kahneman et al. (1990) demonstrated this principle with the "endowment effect," where participants assigned significantly higher values to items they already owned compared to identical items they did not own. This explains why consumers often hold onto possessions they rarely use rather than selling them at market value—the perceived loss of ownership outweighs the rational financial gain from the sale.

2. Regret aversion in purchase

Regret aversion occurs when individuals make or avoid purchases based on the fear of future regret. Consumers may overpay for a product to avoid the disappointment of missing out on it, such as buying during a "limited-time offer" even when they don't need the item immediately. On the other hand, they may delay purchases to avoid the possibility of later finding a better deal, which can sometimes lead to missed opportunities or settling for costlier alternatives.

Zeelenberg and Pieters (2007) characterized regret aversion as an emotional bias in which individuals tend to avoid making decisions that might lead to action out of fear that the decision will turn out poorly. In retail contexts, this explains why extended warranties and purchase protection plans remain profitable for sellers despite offering poor value for most consumers—the desire to avoid potential regret outweighs rational cost-benefit analysis.

The hospitality and travel industries effectively leverage regret aversion through messaging like "Only 2 rooms left at this price!" or "95% booked for your dates." These prompts create anticipatory regret, driving consumers to make immediate bookings rather than risk missing out. Similarly, the effectiveness of money-back guarantees stems partly from reducing anticipated regret, making consumers more comfortable with purchases they might otherwise avoid.

3. Mental Accounting & Payment Methods

Mental accounting—a concept introduced by Thaler (1985, 1999)—refers to the cognitive tendency to treat money differently depending on its source, intended use, or form of payment. In the context of spending, this can lead to inconsistent financial decisions, as individuals mentally separate funds into "budgets" (e.g., groceries, entertainment, rent) rather than evaluating all expenses from an integrated view of overall wealth. While mental accounting can help with self-control and budgeting, it can also encourage overspending in categories perceived as less important or pre-allocated for fun.

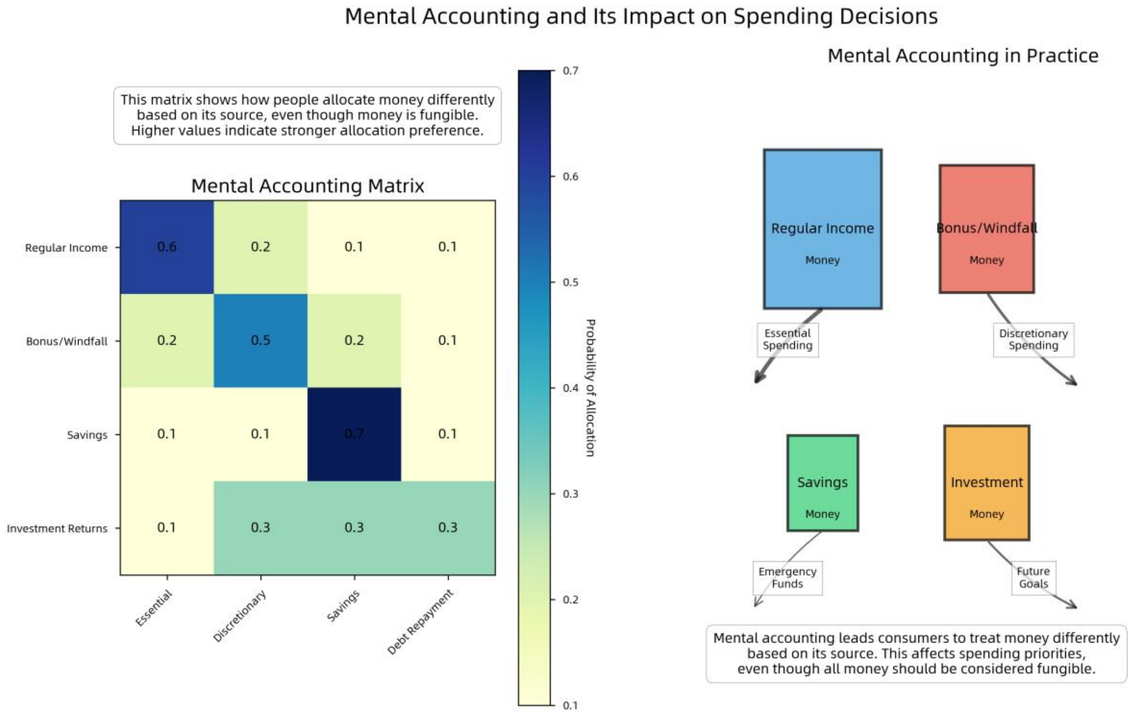

Figure 5

Mental accounting and its impact on spending decisions

Note. Figure created by the author.

Payment method plays a key role in how people experience the pain of paying**.** Raghubir and Srivastava (2008) demonstrated the denomination effect, where smaller denominations are spent more readily than larger ones of equal value. Similarly, Prelec and Simester (2001) showed that consumers are often willing to pay more when using credit cards compared to cash, due to reduced transaction salience. More recent neuroscience evidence from Banker and Prelec (2021) confirms that credit card payments activate reward-related brain regions more strongly than cash payments, potentially encouraging higher spending.

In modern retail, digital wallets, contactless cards, and Buy Now, Pay Later (BNPL) services have further decoupled the act of purchasing from the act of payment. Early findings (Ashby, 2025) suggest BNPL may increase average transaction size and reduce the perceived financial impact at the time of purchase. Data from the *Diary of Consumer Payment Choice* (Federal Reserve Bank of Atlanta; Federal Reserve Bank of Boston; & Federal Reserve Financial Services, 2024) also reveals a steady shift towards non-cash transactions, raising important questions about how reduced payment friction affects household budgeting and debt accumulation.

4. Self-Control, Budgeting, and Spending Discipline

Spending behavior is not solely a matter of preferences and prices—it is also shaped by self-control. Shefrin and Thaler's (1988) Behavioral Life-Cycle Hypothesis proposes that individuals mentally divide their wealth into three accounts: current income, current assets, and future income. Because funds in the "current income" account are the most readily spent, this framework can explain why windfalls and monthly salary payments are often spent faster than long-term savings.

Self-control problems arise when individuals fail to adhere to spending plans, often due to immediate gratification bias or ego depletion (Baumeister et al., 1998). While mental accounting can act as a commitment device—helping people allocate funds towards savings or necessary expenses—it can also backfire if people create overly permissive categories (e.g., "entertainment" budgets that justify frequent luxury spending).

Modern payment technologies further challenge self-control by reducing the immediacy of payment pain. Credit cards, BNPL, and automatic subscription renewals delay the moment of financial reckoning, which can lead to overconsumption if not counterbalanced by strong budgeting systems. This makes awareness and tracking tools—such as expense apps or bank alerts—crucial for maintaining discipline in the face of easy, low-friction spending options.

Conclusion

The psychological tendencies discussed above are common in everyday spending, but not everyone is equally affected by them. A person's susceptibility to these biases often depends on factors such as age, financial literacy, personal experiences, and even emotional state at the time of purchase. For example, individuals with less experience in managing money may be more prone to impulse buying or being swayed by discounts, while those with more experience might still fall into patterns like overvaluing sunk costs.

Ultimately, behavioural factors play a significant role in shaping spending choices, sometimes leading people away from rational decision-making. By understanding these biases and applying strategies to counter them—such as budgeting, delayed purchasing, and mindful evaluation of needs—consumers can make more balanced, cost-effective choices and avoid the financial strain that often results from unexamined habits.

The practical implications of this research are substantial. Financial education programs should incorporate behavioural insights rather than focusing solely on technical knowledge. Specifically, these programs should help individuals recognize their susceptibility to various biases and develop strategies to mitigate their effects. Additionally, policymakers and financial institutions could design choice architectures that guide consumers toward more rational spending decisions, such as default options that encourage saving or tools that highlight the long-term impact of recurring expenses.

Further research should explore how digital technologies and emerging payment methods interact with cognitive biases in spending decisions. As contactless payments, subscription models, and one-click purchasing become more prevalent, understanding how these innovations affect consumer psychology will be crucial for promoting financial well-being. Additionally, cross-cultural studies could investigate how different social norms and values influence the manifestation of cognitive biases in spending behaviour across diverse populations.

By bridging the gap between psychological research and practical financial guidance, we can help individuals develop more conscious spending habits and improve their overall financial outcomes, even in the face of inherent cognitive limitations.

References

1. Abul, S. J. (2019). Factors influencing individual investor behaviour: Evidence from the Kuwait Stock Exchange. *Asian Social Science,* 15(3), 27–39. https://doi.org/10.5539/ass.v15n3p27

2. Arianti, B. F. (2018). The influence of financial literacy, financial behavior and income on investment decision. *Economics and Accounting Journal,* 1(1), 1–10. https://doi.org/10.32493/eaj.v1i1.y2018.p1-10

3. Ariely, D., Loewenstein, G., & Prelec, D. (2003). "Coherent arbitrariness": Stable demand curves without stable preferences. *Quarterly Journal of Economics,* 118(1), 73–105. https://doi.org/10.1162/00335530360535153

4. Baumeister, R. F., Bratslavsky, E., Muraven, M., & Tice, D. M. (1998). Ego depletion: Is the active self a limited resource? *Journal of Personality and Social Psychology*, 74(5), 1252–1265. https://doi.org/10.1037/0022-3514.74.5.1252

5. Kahneman, D., & Tversky, A. (1972). Subjective probability: A judgment of representativeness. *Cognitive Psychology,* 3(3), 430–454. https://doi.org/10.1016/0010-0285(72)90016-3.

6. Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica,* 47(2), 263–291. https://doi.org/10.2307/1914185 .

7. Kahneman, D., Knetsch, J. L., & Thaler, R. H. (1990). Experimental tests of the endowment effect and the Coase theorem. *Journal of Political Economy*, 98(6), 1325–1348. https://doi.org/10.1086/261737

8. Olsen, R. A. (1998). Behavioral finance and its implications for stock-price volatility. *Financial Analysts Journal,* 54(2), 10–18. https://doi.org/10.2469/faj.v54.n2.2161

9. Pompian, M. M. (2011). Behavioral finance and wealth management (2nd ed.). Wiley. https://doi.org/10.1002/9781119202400

10. Prelec, D., & Simester, D. (2001). Always leave home without it: A further investigation of the credit-card effect on willingness to pay. *Marketing Letters*, 12(1), 5–12. https://doi.org/10.1023/A:1008196717017

11. Prosad, J. M., Kapoor, S., & Sengupta, J. (2015). *Theory of behavioral finance.* In Z. Copur (Ed.), *Handbook of Research on Behavioral Finance and Investment Strategies: Decision Making in the Financial Industry* (pp. 1–24). IGI Global. https://doi.org/10.4018/978-1-4666-7484-4.ch001.

12. Statman, M. (1999). Behavioral finance: Past battles and future engagements. *Financial Analysts Journal,* 55(6), 18–27. https://doi.org/10.2469/faj.v55.n6.2311

13. Subramaniam, V. A., & Velnampy, T. (2017). The role of behavioural factors in the investment decisions of household investors. *International Journal of Accounting and Financial Reporting*, 7(1), 392–412. https://doi.org/10.5296/ijafr.v7i1.11421

14. Thaler, R. H. (1985). Mental accounting and consumer choice. *Marketing Science,* 4(3), 199–214. https://doi.org/10.1287/mksc.4.3.199

15. Thaler, R. H. (1999). Mental accounting matters. Journal of Behavioral Decision Making, 12(3), 183–206. https://doi.org/10.1002/(SICI)1099-0771(199909)12:3<183::AID-BDM318>3.0.CO;2-F

16. Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, 185(4157), 1124–1131. https://doi.org/10.1126/science.185.4157.1124

17. Zeelenberg, M., & Pieters, R. (2007). A theory of regret regulation 1.0. *Journal of Consumer Psychology*, 17(1), 3–18. https://doi.org/10.1207/s15327663jcp1701_3

18. Kansal, P., & Singh, S. (2013, February). Investment behaviour of Indian investors: Gender biasness. In Proceedings of the Seventh National Conference on Indian Capital Market: Emerging Issues IBS Gurugram, India. SSRN. https://ssrn.com/abstract=2358344

19. Lintner, G. (1998). Behavioral finance: Why investors make bad decisions. *The Planner*, 1–8.

20. Venezia, I. (2018). *Lecture Notes in Behavioral Finance*. World Scientific Publishing Co. Pte. Ltd. (World Scientific Lecture Notes in Finance, No. 3) https://doi.org/10.1142/10751

21. Saeed, K. (2019, December 6). *Impact of heuristic biases on investment decision: Locus of control playing a moderating role* (Scholarly Paper No. 3499658). Social Science Research Network. https://dx.doi.org/10.2139/ssrn.3499658.

22. Raghubir, P., & Srivastava, J. (2009). The denomination effect. *Journal of Consumer Research*, 36(4), 701–713. https://doi.org/10.1086/599221.

23. Banker, S., Dunfield, D., Huang, A., & Prelec, D. (2021). Neural mechanisms of credit card spending. *Scientific Reports*, 11, 4070. https://doi.org/10.1038/s41598-021-83488-3.

24. Ashby, R., Sharifi, S., Yao, J., & Ang, L. (2025). *The influence of the buy-now-pay-later payment mode on consumer spending decisions. Journal of Retailing,* 101(1), 103–119. https://doi.org/10.1016/j.jretai.2025.01.003.

25. Federal Reserve Bank of Atlanta; Federal Reserve Bank of Boston; & Federal Reserve Financial Services (2024). *2023 Diary of consumer payment choice* https://doi.org/10.29338/rdr2024-01

26. Shefrin, H. M., & Thaler, R. H. (1988). The behavioral life-cycle hypothesis. *Economic Inquiry, 26*(4), 609–643. https://doi.org/10.1111/j.1465-7295.1988.tb01520.x

27. Stephens, M. Jr. (2003). *"3rd of the month": Do Social Security recipients smooth consumption between checks? American Economic Review,* 93(1), 406–422. https://doi.org/10.1257/000282803321455386.

28. Sinha, P. K., & Uniyal, D. P. (2005). Using observational research for behavioural segmentation of shoppers. *Journal of Retailing and Consumer Services, 12*(1), 35–48. https://doi.org/10.1016/j.jretconser.2004.02.005