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## Understanding Financial Misbehaviour: A Perspective on Suboptimal Personal Finance Decisions

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### ABSTRACT:

This paper examines the trend of financial misbehaviour by investigating how behavioural biases result in suboptimal personal finance decisions, defying the traditional assumption of investor rationality. With the help of empirical observations like global financial literacy rates, increasing household debt, and spiralling credit consumption, the paper identifies a stark gap between financial capability and responsibility globally. A classification of 18 behavioural biases that have been grouped into four thematic categories (temporal and risk-related, cognitive and heuristic-based, self-evaluation and belief-based, and social influence based) have been discussed at length. Each bias is exemplified using everyday examples like Buy Now Pay Later scheme, cryptocurrency valuations, and the GameStop stock price debacle to highlight their applicability and implications. In overcoming these biases, the paper assesses intervention measures like nudges, boosts, financial education, and policy reforms. It recommends that enhancing financial well-being needs to be tackled on two fronts: building individual decision-making capacity and reshaping financial environments through effective policy design. The research highlights the need to combine behavioural insights into financial literacy initiatives and regulatory frameworks to combat misbehaviour in an increasingly complex global financial landscape.

**Keywords:** Financial Behaviour, Financial Decision Making, Personal Finance, Behavioural economics, Bias, Heuristics, Risk, Interventions, Nudges.

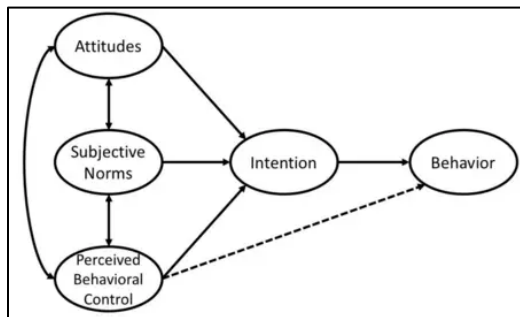
### INTRODUCTION:

According to the classical theories of economics and finance, it should be assumed that an agent or an investor will always be rational when involved in the process of decision making (Chandra, 2008). Here, it is assumed that investors will consider all available information and make rational

decisions within their best interest (Dinarjito, 2023). However, these assumptions were later challenged by psychologists who argued that investors' decision making can be affected by emotional factors and cognitive biases (Sahoo & Sahoo, 2022). The study of such phenomena where people let go of the traditional methods of decision making and take irrational decisions based on heuristics, various biases and emotions is called Behavioural Finance (Chandra, 2008). To delve further, behavioural finance essentially deals with the impact of human behaviour on all aspects of a person's economic and financial world. This may include a person's investments, spending, goals, education and more (Havidotinnisa et al., 2024).

The financial markets have seen a great deal of growth in the last few decades and this can largely be attributed to the rapid globalisation & financialization of the world economy. Factors like technological advancements, competitive markets and product innovation have led to the financial markets becoming much more dynamic and complex in nature (Zopounidis & Doumpou, 2002; Johan et al., 2020; Hira, 2009). However, this implies that there are a lot more people actively taking part in these markets and they are faced with a multitude of options to choose from (Hira, 2009). Therefore, it is becoming more important for a person to be financially literate and for them to have the ability to make sound financial decisions (Zopounidis & Doumpou, 2002). Thus, there is an ever-growing need for more financial education for the general populace so that they can secure their financial wellbeing (Hira, 2009). On the other side, many behavioural economists like Willis (2008) are in favour of reverting back to simpler and less complicated financial products and services due to lower levels of financial knowledge (Mandell, 2009).

According to Arifin (2017), individuals with higher levels of financial literacy tend to have better financial behaviour as well. Financial behaviour can be described as the way an individual behaves with respect to their finances. However, financial behaviour is just the response to any information received and it should lead to an outcome via some sort of decision taken by the individual (Chavali et al., 2021; Xiao, 2008). The most widely used theory to define behaviour is the Theory of planned behaviour given by (Ajzen, 1991). According to this theory (Figure 1), the attitudes, subjective norms and perceived behavioural control of an individual determines their intention and the intention determines an individual's behaviour (Sansom, 2021; Xiao, 2008). According to Xiao (2008), this theory also holds true in the case of financial behaviour.



**Figure 1: Theory of Planned Behaviour**

*Source: (Sansom, 202*

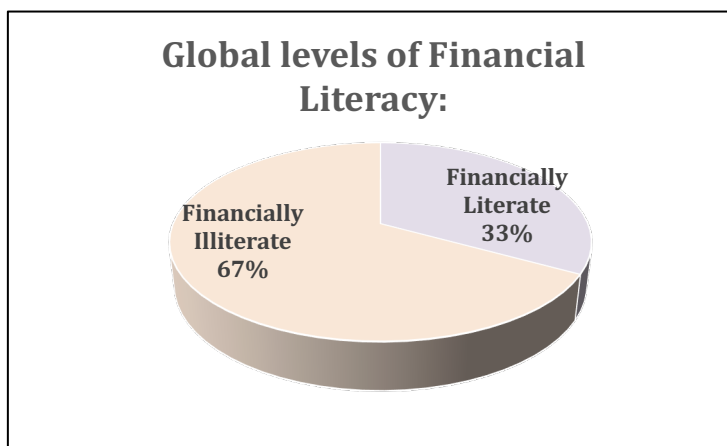
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An individual's financial behaviour heavily influences the financial decisions that they take and these financial decisions can have an impact on their welfare, well-being, goals and more (Greenberg & Hershfield, 2018; Dinarjito, 2023; Zopounidis & Doumpos, 2002). For any rational investor, their main aim is to generate a profit on their money and thus, their financial decisions can and will have an impact on this goal (Dinarjito, 2023). Financial Decision making is essentially a cognitive process where individuals are presented with various options and they have to weigh the costs of each outcome against the benefits and ultimately choose an outcome that they think will lead to the highest gain (Dinarjito, 2023; Kumar et al., 2023).

Individuals that have good financial behaviour like budgeting, avoiding impulse purchases and more usually tend to be more careful with their finances and take better, more informed financial decisions which leads to them having higher financial well-being (Dinarjito, 2023; Chavaliet al., 2021). The opposite can also be said to be true where negative financial behaviour may lead to worse financial decisions. However, people do not intentionally take bad financial decisions and they often regret the bad decisions they take. This can be attributed to behavioural heterogeneity (Chavali et al., 2021).

### DATA BACKED FINANCIAL MISBEHAVIOUR:

According to the S&P Global Fin Lit Survey conducted by Klapper, Lusardi, and Van Oudheusden in 2015, only about 33% of the world's population is financially literate (Figure 2). The report also shows that on average only 35% of men and 30% of women are financially literate and that financial literacy percentage is higher in advanced economies compared to less developed economies.



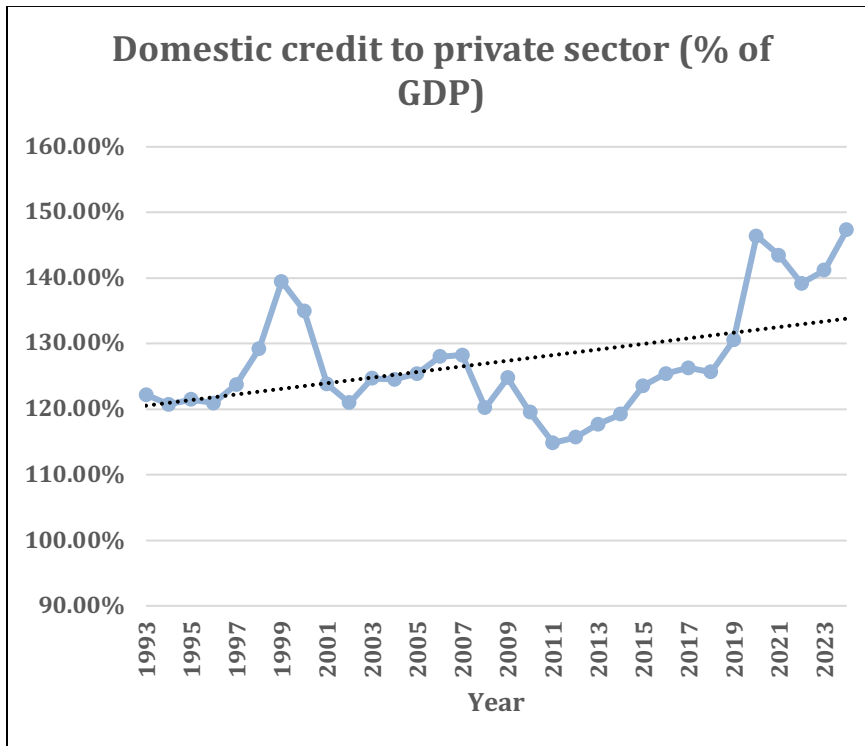
*Figure 2: Depicting Global levels of Financial Literacy*  
*Source: (Klapper et al., 2015)*



Similarly, according to the Global Debt Monitor released by IIF and written by Tiftik, Mahmood, and Aycock in 2024, Global debt levels have risen by over \$15 Trillion in FY 2023 and have reached a record of \$313 Trillion. In recent years, Global household indebtedness has risen to about \$59.3 Trillion.

Lastly, According to World Bank (2021) credit usage has increased all over the world from 2011 to 2021. The increase % is smaller for advanced economies compared to developing economies. However, Klapper et al. (2015) found that many individuals who possessed credit cards or took loans were not actually financially literate. This number was also greater in poorer and developing economies compared to advanced economies.

Lastly, according to World Bank (2023), Worldwide Domestic credit to private sector as a percentage of GDP has also been on an overall upward trend for the last few decades (Figure 3). Domestic credit to private sector refers to financial assets provided to the private sector, such as loans, purchase of nonequity securities, and trade credits and other accounts receivable that provide a claim for repayment (World Bank, 2015).



*Figure 3: Worldwide domestic credit to private sector (% of GDP)*



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**PERSONAL FINANCE & COMMON MISBEHAVIOUR:**

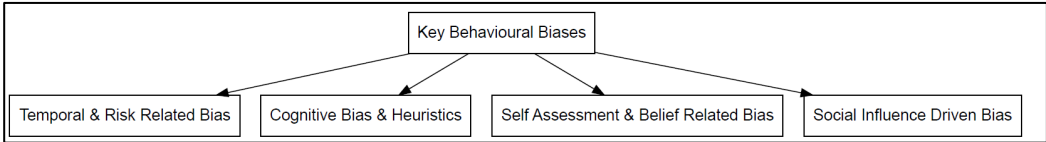
The term “Personal Finance” relates to how an individual manages their personal money. Personal finance is always dependent on an individual’s financial behaviour like savings, investments, etc. and is always focused and geared towards achieving their financial goals (Kenton, 2025). Important areas for personal finance include any source of cash flow i.e. Income, Savings, Investments, Spending and methods to safeguard against unexpected situations i.e. Protection (Kenton, 2025; Nguyen et al., 2019). There also exists an entire industry that caters to the personal finance related needs of individuals. This includes services and products like insurance, mortgages, banking, retirement, tax planning and so on (Kenton, 2025).

When it comes to personal finance, sound money habits correlate with lower financial concerns and improved mental well-being, since people who are financially secure have fewer depression symptoms and worry about money management (Lee, Hales, & Kelley, 2023). On the flip side, bad personal finance habits like high debt, no emergency savings, and impulse purchases strongly lead to financial distress and requirement of government aid, and strongly lower financial satisfaction (Lee, Hales, & Kelley, 2023). Too much debt has also been linked to poor health outcomes, studies have indicated that individuals with high debt are at higher risk of premature mortality due to stress-related illnesses and restricted access to healthcare services (Williams, 2017).

**COMMON PERSONAL FINANCE MISBEHAVIOURS & KEY BEHAVIOURAL BIASES:**

According to Tversky and Kahneman (1974), behavioural bias can be described as systematic deviations from rationality that is involved in the human decision-making process. Biases can often lead people to make decisions based on subjective factors rather than objective factors & empirical evidence. Thus, biases often lead to skewed judgement and suboptimal decisions (Muhammad Yamin Noch & Mohammad Ridwan Rumasukun, 2024).

When it comes to personal finance, these cognitive and emotional biases operate systematically in deciding an individuals' choice of investment, borrowing, expenditure, saving and any other financial decision (Marchand & Duzce, 2012). The following sections focus on common behavioural biases, classified according to similar underlying characteristics (Figure 4).

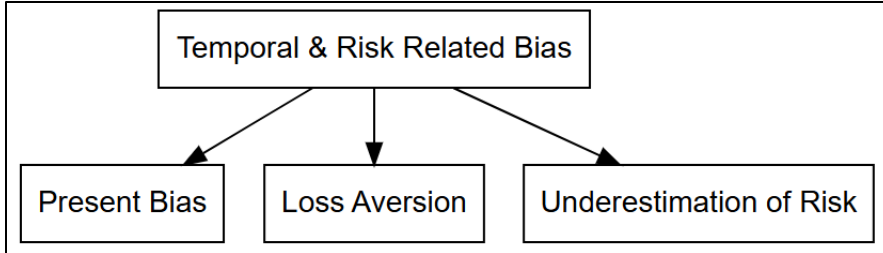


*Figure 4: Flowchart depicting the bias classification used*



#### TEMPORAL & RISK RELATED BIAS:

Temporal & Risk related bias entails any common biases related to judgement with respect to time or risk (Figure 5).



*Figure 5: Flowchart depicting common Temporal & Risk related biases*

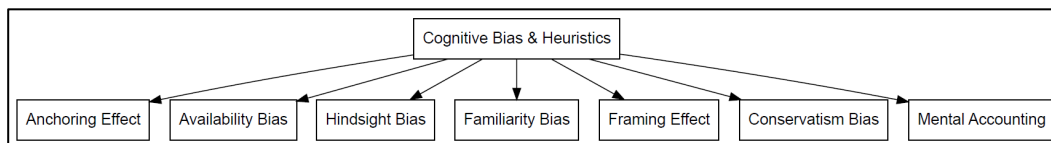
- **Present Bias:** According to the present bias, individuals tend to get impatient in the short run and be patient in the long run. This implies that people tend to make decisions such that they get instant gratification instead of delayed gratification over a longer time period (Peón & Antelo, 2021). Good examples of present bias would be common phenomena like people indulging in impulse purchases and using new schemes like Buy Now Pay Later and more.
- **Loss Aversion:** Loss aversion occurs when individuals prefer to avoid losses over attaining equivalent gains (Seth & Kumar, 2020; Kartini & Katiya, 2021). According to Loss aversion theory, the emotions that a person will feel if they incur a loss will always be greater than the happiness they derive from a gain of equal amount (Wilkinson & Klaes, 2012). A loss always appears larger because individuals are more stressed about prospective losses (Tripathy, C. K., 2014). An example of loss aversion can be found in the disposition effect identified by Odean in 1998 where investors tend to hold on to losing stocks for longer durations compared to winning stocks, out of fear of realizing a loss (Sathya & Gayathir, 2024).
- **Underestimation of Risk:** Underestimation of risk essentially depends on an individual's perception of risk. People that underestimate risk usually tend to focus more on their beliefs and give less weight to outside opinions. This may lead to biased decision making. (Gohain & Mahapatra, 2025; Baker, Filbeck, & Ricciardi, 2017)



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### COGNITIVE BIAS & HEURISTICS:

Cognitive Bias & Heuristics cover skewed use of information and mental shortcuts (Figure 6).



*Figure 6: Flowchart depicting common Cognitive biases & Heuristics*

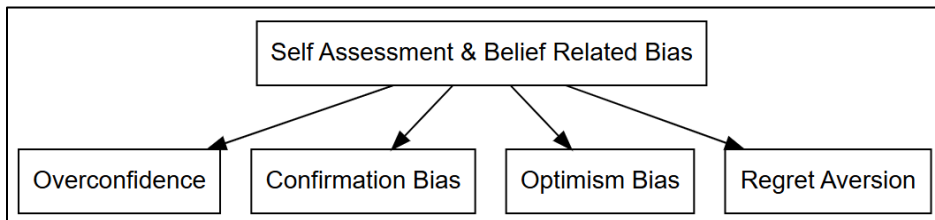
Introduced by Kahneman & Tversky in 1974, **Heuristics** can be described as mental shortcuts that are used by individuals to make decision making easier and faster. While heuristics may be efficient, they can also often lead to biases in decision making (Sathya & Gayathir, 2024). In the context of personal finance, individuals are presented with a multitude of alternatives to pick from and thus, to simplify the complex decision-making process, they tend to use heuristics to choose the best alternative (Mangala & Sharma, 2014).

- **Anchoring Effect:** Under anchoring effect, investors tend to be over reliant on the first (anchor) piece of information they receive and undervalue any new information they receive. Anchoring bias can negatively impact an investors decision if the anchor information is irrelevant and can lead to sub-par decisions (Aneja, 2024; Davis, D., 2024; Sathya & Gayathir, 2024). The most common type of anchor would be some sort of event or trend that took place in the past, due to which newer information was given less weight during the decision-making process (Nikolić, 2018). A great example of anchoring bias at play can be seen during cryptocurrency valuations in 2017. As Bitcoin's value rose to \$19,783, investors became fixated on that peak even as there were subsequent volatility and other regulatory risks (CoinMetrics, 2021). By 2022, 43% of retail crypto investors still referenced the 2017 peak in online surveys, showing how anchoring bias leads to misaligned expectations in financial markets (CoinMetrics, 2021).
- **Availability Bias:** Under the availability bias, individuals tend to predict future trends solely on the basis of the information easily available to them in their memory. This implies that people will assign higher probabilities
- to events that they can envision or events that have occurred in the past (Nikolić, 2018). Availability bias makes individuals think that easily found, surface level information is enough for informed decision making (Singh, 2024). Furthermore, individuals base their opinions on the information available to them and this may lead to biased estimation of future events and decisions (Nikolić, 2018). Research shows that individuals affected by the availability bias usually tend to solely invest in domestic stocks due to the easy availability of information surrounding their domestic markets (Mangala & Sharma, 2014).
- **Hindsight Bias:** Hindsight bias is seen when individuals believe that certain events that occurred in the past were predictable in nature. This usually happens when after an event actually takes place, people believe their own predictions to be more accurate than they were in reality. (Seth & Kumar, 2020; Omoruyi & Ilaboya, 2019)

- **Familiarity Bias:** Familiarity bias in personal finance occurs when individuals prefer to opt for domestic and familiar investment options over other options. This may lead to lower levels diversification in the investor's portfolio (Rosyidah & Pratikto, 2022; Baker, Filbeck, & Ricciardi, 2017).
- **Framing effect:** According to the framing effect, the way any piece of information is framed & presented can influence an individual's decision-making process (Sathya & Gayathir, 2024). Research shows that people react differently to an alternative based on how its framed and that people tend to prefer positively framed information over negatively framed information (Nikolić, 2018; Singh, Goyal, & Kumar, 2016). It is also seen that risky choices are discussed more if the given information is framed negatively (Nikolić, 2018).
- **Conservatism Bias:** Conservatism bias in personal finance can be seen when individuals are conservative when it comes to the financial information they are willing to accept and refuse to accept any new or unique information that is available to them (Zahera & Bansal, 2018).
- **Mental Accounting:** According to mental accounting bias, individuals oftentimes categorize uses of their money in separate mental accounts or categories based on personal criteria and intended use (Seth & Kumar, 2020; Peón & Antelo, 2021). People deal with each mental account individually to avoid certain levels of risk, however there is a possibility
- that this may lead to lowered portfolio returns for them (Mangala & Sharma, 2014).

#### SELF-ASSESSMENT & BELIEF RELATED BIAS:

Self-assessment & belief related bias covers biases related to emotions, confidence or internal consistency (Figure7).



*Figure 7: Flowchart depicting common Self-assessment & Belief related biases*

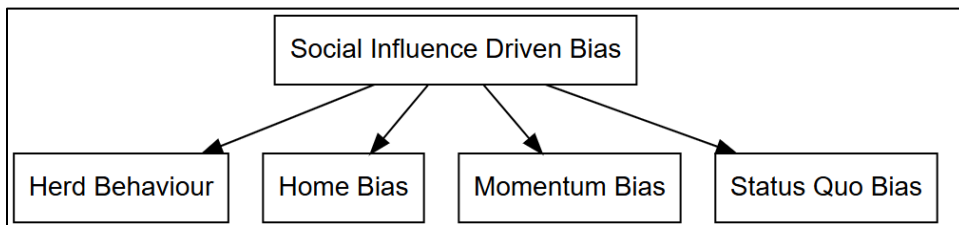
- **Overconfidence:** Overconfidence bias appears when individuals think they are better than they actually are and are also overly-confident in their own skills, abilities and knowledge. This bias gives an illusion that all predictions made are completely valid and it can often lead to poor & hasty investment decisions, low diversification and excessive risk taking by an investor (Smith, 2024; Fisher, K. L., & Statman, M., 2000; Seth & Kumar, 2020; Sathya & Gayathir, 2024; Mangala & Sharma, 2014). Overconfident investors often tend to take higher risk, have higher transaction costs and lower realised returns (Sathya & Gayathir, 2024; Gohain & Mahapatra, 2025). Overconfident investors tend to ignore early signs of risk and of potential losses due to their tendency to think that they know better than others (Kartini &

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- Katiya, 2021). A good example of overconfidence induced bias would be the dot com asset price bubble of 1995 as investors put in \$2.8 trillion into internet related startups with new, unproven revenue models, believing they could identify “the next Amazon” despite lacking technical expertise (Ofek, E., & Richardson, M., 2003). However, when the NASDAQ index lost 78% of its value from 2000–2002, overconfident portfolios underperformed the market by 12% annually (Daniel, K., et al., 1998).
- **Confirmation Bias:** Confirmation bias occurs when individuals actively seek out information that confirms their preexisting thoughts and ideas. This can lead to skewed perceptions and biased decision making as bad decisions and mistakes may be ignored due to the use of information that is solely in line with the decision maker’s opinion and does not question their choices at all (Sathya & Gayathir, 2024; Nikolić, 2018; Zahera & Bansal, 2018).
- **Optimism Bias:** Optimism is when an individual expects an outcome in their favour regardless of any actual time, skill or effort made by them (Seth & Kumar, 2020; Peón & Antelo, 2021). Individuals under this bias tend to overestimate success and underestimate risk. The more optimism bias there is, the higher will be an individual’s expectations of greater returns and this may lead them to continue making biased decisions (Kartini & Katiya, 2021).
- **Regret Aversion:** Regret aversion bias occurs when individuals tend to try and avoid making decisions so that they do not have to regret any poor decisions that they make. In an investor’s context, this may lead to suboptimal investment decisions due to fear of potential regret (Seth & Kumar, 2020; Sathya & Gayathir, 2024). To deal with the feeling of regret, individuals sometimes take poor decisions like holding on to losing investments for longer than they ideally should (Singh, Goyal, & Kumar, 2016).

### SOCIAL INFLUENCE DRIVEN BIAS:

Social influence driven bias covers biases related to an individual’s social environment (Figure 8).



*Figure 8: Flowchart depicting common social influence driven biases*

- **Herd Behaviour:** Herd behaviour in personal finance can be seen when individual investors copy the actions of other investors or a larger group of investors instead of following their own market information. This often leads to panic selling or buying overvalued stocks (Civek, F., 2019). Herd behaviour commonly occurs because individuals think that decisions made by a large number of people are bound to be right and they find solace in the fact that their decision aligns with the majority (Suresh G., 2021). Herd behaviour in financial markets



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- usually becomes more common during periods of economic uncertainty and can also lead to significant price changes and market bubbles or crashes (Sathya & Gayathir, 2024; Gohain & Mahapatra, 2025; Kartini & Katiya, 2021). A prominent example of Herd behaviour would be the GameStop debacle in 2021, where investors on Reddit's "WallStreetBets" forum drove the stock price from \$18 to \$483 in about three weeks, despite the company's declining revenues and outdated business model (Bloomberg, 2021). Here, Investors did not focus on rational processes like fundamental or technical analysis, instead relying on viral memes and influencer hype. The subsequent 90% price collapse by April 2021 left many late entrants with major losses, depicting how herding leads to price distortions in financial markets (Bloomberg, 2021).
- **Home Bias:** Home bias in personal finance can be seen when individuals prefer to buy investment securities in their home country's financial markets rather than any foreign markets due to various factors like ease of making transactions, no currency conversion, more information & familiarity and so on (Atif Sattar, Toseef, & Fahad Sattar, 2020; Zahera & Bansal, 2018).
- **Momentum Bias:** Momentum trading is when investors use strategies that follow the financial market's momentum and try to benefit by using these conditions to their advantage. Momentum bias would occur when an individual tries to take part in momentum trading without any research of their own and solely based off of market inertia (Baker, Filbeck, & Ricciardi, 2017).
- **Status Quo Bias:** The status quo bias can be seen when individuals assign higher importance to a choice that is in line with the preexisting status quo, due to it being the less risky alternative at hand (Nikolić, 2018; Lockton, 2012). The alternative which is in line with the status quo may or may not be wrong but it is the easier option to opt for because it helps the decision maker avoid the risk, responsibility and consequences of their decision (Nikolić, 2018).

### ADDRESSING FINANCIAL MISBEHAVIOUR:

While behavioural biases are quite common and do lead to financial misbehaviour, there are also ways to mitigate and address financial misbehaviour, the following approaches are commonly found for the same.

- **Behavioural Interventions:** Any action that is specifically designed to have an influence on another individual's behaviour or decision can be called a behavioural intervention (Smit, Johnson, & Schlemmer, 2019). There are four commonly found intervention areas. Namely, client choice architecture, commitment features, pricing & financial benefits and client communication (Smit, Johnson, & Schlemmer, 2019).
- **Nudges:** According to Thaler (2008), A nudge is any part of a situation which can alter an individual's behaviour without changing their economic incentives or forbidding them for any specific alternative (Damgaard & Nielsen, 2017; Hertwig & Grüne-Yanoff, 2017). Essentially, people can be nudged towards certain desired alternatives whether they are aware of it or not (Cai, 2019). Nudges are therefore behavioural policies that can be either educative or non-educative in nature (Hertwig & Grüne-Yanoff, 2017).

Presently, nudges in the personal finance are commonly intended to change how information is given about financial products and to present investment options as positive options (Cai, 2019). However, due to rapid technological advancements and development of AI models there is potential for a huge increase in use of digital technology to nudge individuals towards desired alternatives in digital choice environments (Weinmann, Schneider, & Brocke, 2016; Cai, 2019). This is due to the fact that digital technology now plays a huge role in every individual's private & professional life and the fact that new Artificial Intelligence based technology has the potential to process vast amounts of data to help decision making more uniform and rational (Leal & Oliveira, 2024; Weinmann, Schneider, & Brocke, 2016).

- **Boosts:** Boosts are interventions that are focused on improving the competency of individuals by focusing on changes in skills, knowledge or environments (Hertwig & Grüne-Yanoff, 2017). Boosts can be singular domain focused or general in nature and can also be specifically tailored for shorter durations or for a longer term, depending on the circumstances of the individual at hand (Hertwig & Grüne-Yanoff, 2017). Boosts are often focused on preserving the decision-making capabilities of the individual and on developing & improving their competency. Thus, boosts are fundamentally different from education and they do not need to be costly or exclusive as policy measures (Hertwig & Grüne-Yanoff, 2017).
- **Financial Education:** The aim of financial education-based interventions is to improve an individual's financial behaviour and ultimately their financial well-being as a whole (Birkenmaier, Maynard, & Kim, 2022). Research shows that financial education is linked to financial knowledge, which in turn impacts the behaviour of an individual (Birkenmaier, Maynard, & Kim, 2022). Historically as well, financial education has led to an increase in positive personal financial behaviour like savings and retirement planning. It has led to higher credit scores and lower default rates as well (Patel et al., 2023).
- **Policy Recommendations:** According to Madrian, Hershfield, and Sussman (2018), suboptimal personal finance decisions can occur due to limited financial literacy, deception, behavioural biases and perception and other systematic tendencies. They further elucidate the fact that policymakers should try and make policies such that these tendencies can be helped and overall situations can be improved for the general populace. To do so, policymakers should focus on improving retirement outcomes for people, helping individuals develop saving strategies & habits for their short- or long-term needs, helping with management of individual's personal debt and providing benefits & support to low-income households (Madrian, Hershfield, & Sussman, 2018).

## CONCLUSION:

As previously stated, Good financial decision making is vital to ensure financial wellbeing and financial knowledge & education are integral to positive financial behaviour and bias free financial decision making (Arifin, 2017; Greenberg & Hershfield, 2018; Dinarjito, 2023; Zopounidis & Doumpos, 2002; Birkenmaier, Maynard, & Kim, 2022). However, due to various reasons people are often not rational in the way they take their decisions and that leads to suboptimal decision

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making (Madrian, Hershfield, & Sussman, 2018; Sahoo & Sahoo, 2022). The most commonly found reason for suboptimal decision making is the presence of any sort of behavioural bias, which has been discussed at length within this review via discussion about 18 commonly found behavioural biases. This paper aimed to study common behavioural biases in personal finance, what they are, how they can be identified, how to help deal with them and more.

There is huge potential for future research in similar domains such as behavioural biases and behavioural finance. This is due to the fact that financial decision making is becoming more complicated and dynamic as we go through globalization and experience further technological developments (Zopounidis & Doumpos, 2002; Johan et al., 2020; Hira, 2009). Future research could focus on more behavioural biases or on varied types of behavioural biases, on analysing effects of biases based off of demographic factors, on conducting data-backed primary research about impact of biases or mitigation techniques and much more

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