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The direct and indirect effects of financial socialization and psychological characteristics on young professionals' personal financial management behavior

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Abstract

Purpose – Prior work expresses concern about young people's rising debt and lack of financial preparedness. This study focuses on how financial socialization and psychological characteristics affect the personal financial management behavior (PFMB) of young professionals in India. The authors examine both the direct effect of these factors and the indirect effects through financial literacy and aforementioned psychological characteristics as mediators.

Design/methodology/approach – The authors develop a conceptual framework based on the extant literature and empirically test its hypotheses employing partial least squares structural equation modelling (PLS-SEM).

Findings – Attitude towards money, financial self-efficacy, financial risk tolerance, financial socialization through parental direct teaching and peers, and media are all positively associated with young professionals' PFMB, whereas external locus of control and procrastination are negatively associated with their PFMB. Almost all psychological characteristics partially mediate the association between financial socialization and PFMB. Finally, financial literacy plays a partially mediating role in the association between procrastination and PFMB as well as between financial socialization and PFMB.

Practical implications – This study helps regulators and policymakers understand PFMB among young professionals. Interventions should build on the positive role of financial socialization, cultivating a good attitude towards money and financial self-efficacy, and reducing reliance on an external locus of control and procrastination. This study also helps policymakers and financial educators develop societally beneficial personal finance programs.

Originality/value – This research investigates social, psychological and cognitive characteristics in a comprehensive framework to further the authors' understanding of the topic of PFMB.

Keywords Personal financial management behavior, Financial literacy, Psychological characteristics, Social characteristics, Young consumers

Paper type Research paper

1. Introduction

A process known as personal financial management behavior (PFMB) integrates all parts of an individual's financial affairs. Cash management, savings and investments, credit management and insurance are the four major components of PFMB as outlined by Dew and Xiao (2011).

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Personal finance is interdisciplinary in nature, with roots in psychology, sociology, finance and economics (Schuchardt *et al.*, 2007). Accordingly, attention has to be paid to how psychological and social characteristics impact individuals' PFMB (Hilgert *et al.*, 2003; Perry and Morris, 2005; Grable *et al.*, 2009; McNair *et al.*, 2016). Importantly, existing findings on the psychological antecedents of PFMB are often conflicting (Goyal *et al.*, 2021, 2022), demonstrating the need for more research on this important aspect of financial behavior.

Although financial illiteracy is often believed to be the cause of poor financial behavior (Lusardi and Mitchelli, 2007; Lusardi *et al.*, 2021; Goyal and Kumar, 2021), it may not be the only factor (Huston, 2010; Copur and Gutter, 2019; Amagir *et al.*, 2020), with psychological characteristics such as attitude towards money, financial self-efficacy and financial risk tolerance being seen as essential as well (Fernandes *et al.*, 2014; Hoffmann and Plotkina, 2021a; Tomar *et al.*, 2021). Appropriate financial behavior is tied to social and psychological difficulties. Huston (2010) added "other influences" (e.g. family and self-control) in her model to predict financial behavior. Psychological characteristics such as behavioral/cognitive biases, self-control issues, familial, peer, economic, community and institutional impacts might also have an influence on financial habits and well-being (Huston, 2010; Tomar *et al.*, 2021). Recent studies on the financial vulnerability of impoverished consumers indicate that educational programs designed to aid them in navigating the marketplace frequently fail due to a lack of understanding of how developing market consumers' PFMB and perception differ from those in Western or developed economies (Martin and Hill, 2015). The relationship between attitudes and prudent financial behavior has not been thoroughly studied and some studies looked at the relationship between positive PFMB and attitude towards money (Lee *et al.*, 2019; Bapat, 2020). Similarly, despite the link between financial self-efficacy and financial well-being, little is known about how PFMB is affected by it (Herawati *et al.*, 2018). Parents can and do have a big impact on how young adults think about and handle money (Tang *et al.*, 2015). But it is still not clear how big this influence is compared to other factors that shape people's behavior.

Classical economists implicitly assume that developments in financial knowledge will always lead to modifications in people's financial management practices (Hilgert *et al.*, 2003). However, the empirical data about the impact of financial literacy on financial behavior is not conclusive (Xu and Zia, 2012). The mediating effects of financial literacy in the relationship between psychological constructs and PFMB have been scarcely studied, despite financial literacy being one of the most significant predictors of PFMB (Goyal *et al.*, 2021). How psychological characteristics and financial socialization influence financial behavior through mediation of financial literacy also needs further exploration (Xiao and Tao, 2020), specifically in emerging economies (Copur and Gutter, 2019; Bapat, 2020).

Concerning evidence shows that young people have more debt (Allgood and Walstad, 2013; Adzis *et al.*, 2017; Norvilitis and MacLean, 2010), under-save (Lusardi, 2003) and are poor investors (Jappelli and Padula, 2013). Young people are in the wealth-accumulation stage; therefore, their financial actions now will affect the rest of their life. Also, the younger population is often particularly financially vulnerable (Hoffmann *et al.*, 2021). Aforementioned challenges are exacerbated in a developing market economy such as India, where many customers are at the "bottom of the pyramid" or poor. Such consumers often have distinct purchasing habits and experiences that differ from those at the top of the pyramid. The material environment characterized by abundance for nations at the top of the pyramid differs from those at the bottom and so market activities diverge (Martin and Paul Hill, 2012).

In terms of the age of its population, India is a young country compared to the West. More than 65% of its people are under 35 years old (Census of India, 2011). Young workers make up a big part of the workforce and are important for the economy to grow (Bapat, 2020). A report from KPMG says that people under this age will make up 75% of the global workforce

(KPMG, 2016). According to a Reserve Bank of India (RBI) report on household finances (RBI, 2017), eighty-four percent of the average Indian household's wealth is in real estate, eleven percent is in physical gold, and the remaining five percent is in other financial assets. In advanced economies, people have more financial assets and put a lot of money in retirement accounts, in contrast to developing countries where retirement accounts play a far smaller role in household balance sheets. The differences in population and personal income explain almost none of these differences (RBI, 2017). Hence, these differences could potentially be explained by the influence of other factors that might affect how people handle their money. In this regard, India has cultural similarities with its Asian neighbors, but is very different from the US and other Western countries (Hofstede, 1980), where most existing studies on PFMB have been performed (Goyal *et al.*, 2021; Xu *et al.*, 2015; Brounen *et al.*, 2016; Topa *et al.*, 2018). In particular, not much work has been done on personal financial planning from the point of view of developing countries (Agarwalla *et al.*, 2015; Chandra *et al.*, 2017; Singh *et al.*, 2019; Bapat, 2020; Tomar *et al.*, 2021), which is where our study comes in. As one of the world's largest, youngest and fastest-growing economies, India provides an ideal backdrop for examining how young professionals manage their personal money.

Against this background and aforementioned research gaps, the main purpose of this study is to examine the impact of attitude towards money, financial self-efficacy, financial risk tolerance, external locus of control and procrastination as psychological characteristics, as well as financial socialization through parental direct instruction and peers and media as social characteristics, on the PFMB of young Indian professionals. Our work focuses on young professionals who should have the financial means and resources to participate in financial planning, in contrast to individuals not in employment. It is important to test the functional relationships between cognitive, social and psychological characteristics, and PFMB of young professionals to be able to develop knowledge on the topic and recommend successful strategies for improving their financial planning as well as increase retirement preparedness.

Our research contributes to theory and practice. We contribute to theory in two different ways. First, our paper employs behavioral theories to establish a conceptual model of young professionals' financial behavior. Second, our research examines mediation effects to better understand the underlying mechanisms of key relationships. We conducted an inquiry into the identification of the substantial (direct and indirect) relationship between financial socialization (through parental direct teaching as well as peers and media) and young professionals' PFMB. In this manner, we expanded on Tang *et al.*'s (2015) work, who called for a mediation-based approach, investigating the interplay between social factors, psychological characteristics, financial literacy and PFMB and thus providing a more complex explanation than prior work.

Our findings have practical ramifications as well. Particularly, by developing an understanding of the interrelationships (both direct and indirect) between social factors, psychological characteristics, financial literacy and PFMB, regulators and policymakers can allocate limited educational resources more wisely to address the problem of inadequate financial planning. From a practical standpoint, our study addresses the pressing need for regulators and policymakers to have a deeper knowledge of PFMB among the young. In order to stimulate responsible financial behavior, interventions should build on the positive role of financial socialization while cultivating a good attitude towards money and financial self-efficacy, and decreasing the propensity toward external locus of control and procrastination.

Financial planners who play a key role in promoting consumer financial well-being can leverage our findings in a number of ways. Financial self-efficacy, attitude towards money and financial risk tolerance impact PFMB positively, confirming the usefulness of financial planners and therapists. Young individuals may benefit from professionals who help them develop a good financial attitude, financial risk tolerance, financial self-efficacy and encourage more financial socialization. It would also aid in the development of personal finance management programs for society and the actual economy by policymakers and financial educators. Policymakers have expressed worry about financial illiteracy and how people manage their finances in the wake of the COVID-19 pandemic. Unquestionably, COVID-19 has caused a global financial catastrophe and a health crisis. The virus may have long-lasting financial effects that manifest over time as structural weaknesses. Some of the key abilities that can provide financial resilience in a crisis include creating financial objectives, having emergency reserves, investing smartly, borrowing cautiously, having insurance and efficient management of day-to-day financial expenses (Lusardi *et al.*, 2021).

The rest of this paper is organized as follows. We first present the theoretical backdrop and hypotheses development. Then, we describe the research methodology, data analysis and findings. Finally, we conclude with a discussion of our findings and their implications.

2. Theoretical background and hypotheses development

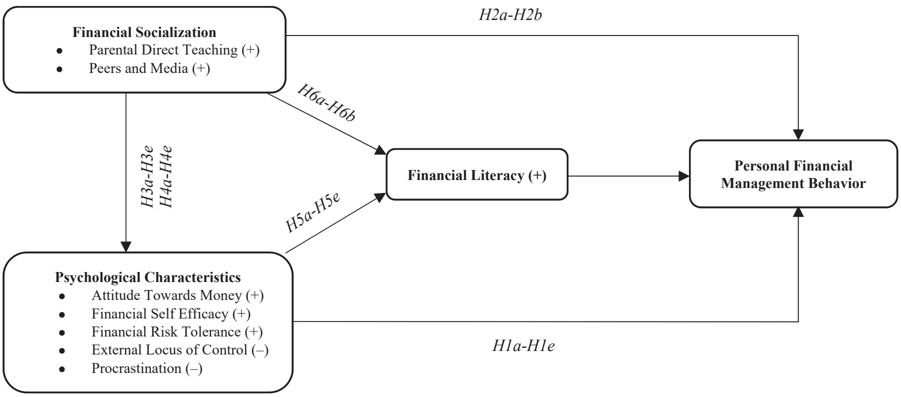
Financial management involves a complex collection of behaviors and choices that vary in relevance and simplicity of execution depending on the requirements, goals and talents of a person or family (Ozmete and Hira, 2011). Given its many possible antecedents, explaining financial management behaviors requires a multi-theoretical and interdisciplinary approach (Schuchardt *et al.*, 2007). The most widely used behavioral prediction models, such as the theory of reasoned action (TRA) (Ajzen and Fishbein, 1980) and the theory of planned behavior (TPB) (Ajzen, 1991), emphasize the role of psychological characteristics in understanding and predicting human behavior. The TPB proposes a causal relationship between attitude, subjective norms and behavioral intent. The TPB is derived from the TRA and posits that intentions are the direct antecedents of behavior, which can be predicted by attitude, subjective norm and perceived behavioral control. The TPB has been successfully used to predict intentions in a variety of contexts. For instance, studies by Johnston and White (2003) into students' intentions to binge drink revealed that attitude, subjective norm and self-efficacy were all significant predictors of intentions, accounting for 69% of the variance in intentions. Similar to this, Norman and Conner (2006) found that TPB variables, including attitude, self-efficacy and perceived behavioral control, significantly predicted intentions, accounting for 66% of the variance in intentions. Theories of human behavior at the social level such as consumer socialization and social learning theory suggest that people live within and are impacted by a social context that includes family members, colleagues, friends and others (Rimer and Glanz, 2005). The parent–child relationship has received the most attention in family socialization theories because it has a significant impact (Gudmunson and Danes, 2011). According to Moschis (1987), communication plays a crucial role in teaching people how financial systems are composed, logical and operate. According to Mugenda *et al.* (1990), family characteristics can affect these financial communication patterns, which can lead to better financial behavior. Social cognitive theory (SCT) is one of these theories that blends elements from cognitive, behaviorist and affective models of behavior modification. It asserts that in order to perform a behavior, a person must have behavioral capability—knowledge of both the behavior and the process for performing the behavior; SCT identifies learning through the experiences of credible others ("observational learning") as the other key method for developing behavior. Self-efficacy (an individual's confidence in his or her ability to perform a behavior in a variety of contexts) is also a key psychological aspect to explain human behavior (Bandura, 2001; Rimer and Glanz, 2005). There is a possibility that positive PFMB resulted in an increase in financial socialization or change in psychological dispositions of an individual (Kim *et al.*, 2019; Shim *et al.*, 2012). Consequently, reverse causality is a possibility. It is therefore prudent to exercise caution when interpreting our presumed predictive relationships, as alternative causal pathways are equally plausible. All of the assumed predictors may interact to predict financial outcomes, but determining whether this is the case was beyond the scope of this study.

Each of the aforementioned theories offers a unique viewpoint on human behavior, but certain basic elements remain consistent. First, cognitions influence behavior; that is, what individuals know and believe influences how they behave. Second, knowledge is important, but it's not enough to change most people's behavior. Third, in addition to knowledge, social and psychological characteristics have a significant impact on behavior. Consistent with these key insights, we propose a conceptual framework in which three groups of variables influence PFMB: cognitive (e.g. financial literacy), social (e.g. financial socialization through parental direct teaching and peers and media) and psychological (e.g. attitude towards money, financial self-efficacy, financial risk tolerance, external locus of control and procrastination.

The recommended framework for this study (see Figure 1) was constructed against the conceptual framework of PFMB created by Goyal *et al.* (2021). It proposes that psychological characteristics and socialization elements influence how individuals behave, including their involvement in personal financial management. Additionally, it implies that psychological characteristics serve as a conduit via which social support functions and exerts its influence. It also conjectures that financial literacy may have a mediating role on the link between psychological characteristics and financial behavior. In the sections that follow, we will develop a set of theory-driven hypotheses about the link between aforementioned factors and young professionals' PFMB.

2.1 Influence of psychological characteristics on PFMB

In comparison to the work done on demographics and socio-economic factors, research on the role of psychological characteristics in personal financial planning behavior is in an elementary stage. Relatively few studies have attempted to exhibit the influence of psychological characteristics on PFMB in general (Xiao and Porto, 2019; Tomar *et al.*, 2021; Hoffmann and Plotkina, 2021a) or specific financial behaviors, like planning for retirement



Note(s): +/– sign in parentheses represents whether the hypothesized relationship with PFMB is positive or negative

Source(s): Authors own creation

Figure 1. The conceptual model of the study

(Hoffmann and Plotkina, 2020; Tomar *et al.*, 2021). However, based on the existing body of literature, it can be inferred that psychological characteristics influence PFMB.

The theory of planned behavior by Ajzen (1991), which looks at the relationship between attitude, intentions and behavior, recognizes how important psychological characteristics are. In the theory of planned behavior framework, intention is based on how individuals think about the behavior (i.e., their attitudes), how they feel about social pressure (i.e., their subjective norms), and how they feel about their ability to control their behavior. Numerous factors, which we refer to as "planned behavior factors," are said to influence financial behaviors in accordance with the extended model of planned behavior. These consist of behaviors, self-efficacy (perception of internal ability), parental norms and norms set by media and peers (Xiao *et al.*, 2011). Ajzen (2011) states that TPB can be generalized towards different disciplines and extended provided that the concept of generalization and the principle of correspondence are followed.

In our framework based on the Theory of Planned Behavior, attitude refers to attitude towards money. Subjective norms include financial socialization through parental direct teaching, and peers and media and perceived behavioral control includes financial self-efficacy (Xiao *et al.*, 2011), financial risk tolerance, external locus of control and procrastination. Psychological characteristics (attitude towards money, financial self-efficacy, financial risk tolerance, external locus of control and procrastination) are considered as explanatory variables. The dependent variable is PFMB. The following section explains the hypotheses with respect to each of the psychological characteristics.

2.1.1 Attitude towards money. Individuals' financial behavior reflects their attitude towards money (Norvilitis *et al.*, 2006), which can be described as a mindset, viewpoint and financial judgement. Attitude towards money is the predisposition of a person to be financially ready for the future, reflecting their propensity to manage spending and saving money. An individual's attitude toward a behavior is influenced by their beliefs about their subjective judgement of the world around them; what they understand about themselves and their environment; and how they link certain behaviors with a variety of other behaviors or losses that they may or may not achieve. Attitude towards money forms an antecedent of young professionals' PFMB. In particular, young people who view money positively can anticipate more financial success (Norvilitis, 2014). Amagir *et al.* (2018) discovered that attitude towards money had a favorable effect on PFMB. In a similar vein, McNair *et al.* (2016) discovered a substantial correlation between attitude towards money and PFMB. Based on aforementioned literature, we hypothesize:

H1a. Individuals' attitude towards money is positively associated with their level of PFMB.

2.1.2 Financial self-efficacy. Self-efficacy is the confidence people have in their ability to perform at a certain level and self-efficacy theory is related to human behavior in general (Bandura, 1994). Financial self-efficacy is related to financial behavior or consumer financial decision-making (Hoffmann and Plotkina, 2021a, b). According to Bandura (1989), in the absence of self-efficacy, knowledge, competence and prior success are insufficient indicators of future achievement. According to PFMB research, a person's confidence in handling his or her finances is a crucial element in motivating a change in their financial behavior (Nguyen, 2019).

According to one study, self-efficacy does in fact predict investments in financial assets and the generation of wealth over time (Chatterjee *et al.*, 2011). Another intriguing conclusion is that the association between procrastination and bad PFMB is mediated by financial self-efficacy (Gamst-Klaussen *et al.*, 2019). Finally, Hoffmann and Plotkina (2021a) found a positive relationship between financial self-efficacy and PFMB. Thus, we hypothesize:

H1b. Individuals' financial self-efficacy is positively associated with their level of PFMB.

2.1.3 Financial risk tolerance. In the financial services sector, risk plays an important role. Studying financial risk tolerance and connecting it to financial management behavior is important since the perceived risk and level of uncertainty associated with financial choices is high (Carlsson Hauff and Nilsson, 2017). The maximum uncertainty that a person is willing to endure when making a financial decision is known as financial risk tolerance (Grable, 2000). Risk assessment, according to Slovic (1986), is subjective and impacted by a variety of elements, such as psychological, social, cultural and political ones. Various financial researchers have discovered that one's financial behavior is affected by the level of risk involved. This influences their willingness to invest in any financial security (Fünfgeld and Wang, 2009). Previous research has investigated how risk tolerance affects investment choices (Hoffmann and Plotkina, 2021a). Worthy *et al.* (2010) found that there is a link between financial risk and how people handle their money when it comes to credit cards and financial debts. Based on this reasoning, we hypothesize:

H1c. Individuals' financial risk tolerance is positively associated with their level of PFMB.

2.1.4 External locus of control. Locus of control is a general, stable tendency to see the world in a certain way. It includes general beliefs about why rewards and punishments happen (Rotter, 1966). Locus of Control is measured on a scale with two ends. One end of the continuum represents an internal locus of control, the other end represents an external locus of control. External locus of control refers to the degree to which rewards, penalties, or other life events are perceived by individuals as being brought about by forces beyond their control (Rotter, 1966). Prior research found that having an external locus of control is negatively linked to PFMB (Perry and Morris, 2005). Those with an external LOC are also less likely to take steps to manage their money (Zimmerman, 1995) and Davies and Lea (1995) found that it was linked to more debt. We therefore hypothesize:

H1d. Individuals' external locus of control is negatively associated with their level of PFMB.

2.1.5 Procrastination. Procrastination is the act of putting off something you want to do even though you expect to be worse off by delaying it (Steel, 2007). It is strongly linked to impulsivity and a preference for the present and may play a role in the intention-behavior gap. It is an unintentional delay and involves unfulfilled intentions. Lay and Burns (1991) examined trait procrastination's effects on study behavior, finding that procrastinators started studying later than non-procrastinators, despite their intentions. Thus, procrastination is also derived from TPB. The rate of procrastination among young is mover than double that of the general population (Steel, 2007; Rozental and Carlbring, 2013). Procrastination is linked to bad financial habits like putting off saving for retirement, shopping at the last minute and not paying bills on time (Gamst-Klaussen *et al.*, 2019) as well as accumulating credit card debt (Nye and Hillyard, 2013). Against this background, we hypothesize:

H1e. Individuals' procrastination is negatively associated with their level of PFMB.

2.2 Influence of financial socialization constructs on PFMB

During the last decade, many researchers have looked into the link between financial socialization and how people act with money (Shim *et al.*, 2009; Bamforth *et al.*, 2018; Antoni *et al.*, 2019). In our study, "financial socialization" refers to the unconscious or conscious learning of financial knowledge, skills, attitudes and behaviors that may have been shown, practiced, or taught by key socialization agents like parents, school and work while people were growing up (Shim *et al.*, 2010). Adults learn consumer knowledge and behaviors in childhood from socialization agents such as parents, siblings, other family members, peers, media and schools, and then practice them in adulthood (Gudmunson and Danes, 2011; Drever *et al.*, 2015). Many of the financial socialization outcomes (e.g. positive financial behaviors, financial well-being) of young adults are embedded in childhood financial socialization processes (e.g. Shim *et al.*, 2009; Drever *et al.*, 2015). Jorgensen and Savla (2010) studied the impact of financial socialization on financial decision-making and found that people who interact and observe financial socialization agents make better financial decisions. Rea *et al.* (2019) confirmed that financially socialized adults make better financial decisions and achieve financial well-being. Beutler and Dickson (2008) provide a comprehensive view of how family members influence intermediate outcomes like money attitudes (materialism, financial prudence), which are linked to financial behaviors and well-being. Despite these advances, we and others believe more can be done to understand the socializing role of family in promoting financial literacy (Jorgensen and Savla, 2010). In terms of financial socialization, we examine the dimensions of parental direct teaching and peers and media influences as explanatory variables. The dependent variable is PFMB. The following section explains the hypotheses with respect to each of the socialization variables.

2.2.1 Parental direct teaching. Parents and family are important socialization factors in how children learn about money and how to handle it. Children often learn about money and how to handle it by accident (through observation and participation), but parents can also teach them on purpose (Moschis, 1987; Shim *et al.*, 2009; Koh and Lee, 2010). Direct parental education, in contrast to parental financial norms, is a multi-component activity that may bring together specialized information from multiple financial domains, parental attitudes, financial transaction abilities and solutions selected by parents for specific financial scenarios (Gudmunson and Danes, 2011). Past research has shown a link between direct parental lessons and the possibility that teenagers replicate their parents' financial habits, attitudes, self-control and behavior (Shim *et al.*, 2009). Hence, we hypothesize:

H2a. Individuals' financial socialization through parental direct teaching is positively associated with their level of PFMB.

2.2.2 Peers and media. Not only people but also organizations can act as socialization agents. As a child gets older, the media (newspapers, TV, Internet, etc.) as well as its peers become influential and this is another important way to learn about money. Moschis and Churchill (1978) found that children learned materialistic values and social motivations from their peers. Lin and Lee (2004) found that younger people who thought they didn't know as much about investing were more likely to ask their friends for advice than their older counterparts. Media also have a big impact on how people learn about money and make choices about what to buy, including how to invest in. Consumers can find products that give them more value for their money if they look for information (Pop *et al.*, 2022). Using media for personal finance has been shown to impact investment choices (Chen *et al.*, 2014; Heimer, 2016). Lee and Cho (2005) looked at how consumers use information intermediaries and how this affects the financial market, finding that many consumers used marketing materials to learn about the financial market. Based on these prior findings, we hypothesize:

H2b. Individuals' financial socialization through peers and media is positively associated with their level of PFMB.

2.3 Mediating role of psychological characteristics in the relationship between financial socialization and PFMB

Financial socialization can shape individuals' psychological characteristics, which in turn influence their PFMB, giving rise to expecting certain mediation effects. According to Duflo and Saez (2003), individuals do not learn about economic possibilities at random, and their economic choices are significantly influenced by their surroundings. This effect might be direct or indirect (Tomar *et al.*, 2021). Individuals gain confidence in handling their finances as a result of their interactions with financial socialization agents (Glenn, 2018). This confidence in financial management is tied to psychological variables. More specifically, Jorgensen and Savla (2010) found that among young adults, how much they thought their parents influenced them had a direct effect on their attitude about money and an indirect effect on their financial behavior through their attitude towards money.

The theory of reasoned action and its extension, the theory of planned behavior, may be used to relate psychological stage with socialization stage (Montano and Kasprzyk, 2015). These theories claim that the information acquired and the thoughts prompted by imitating parental responsibilities and following peers' financial advice might influence the psychological condition of young people. Specifically, this information and experience may aid them in developing favorable attitudes about financially responsible behaviors and self-confidence (Wu *et al.*, 2017). Positive financial attitudes increase the chance of maintaining healthy financial practices in adulthood (Jorgensen and Savla, 2010). As young individuals typically imitate parental actions and financial situations, they might acquire habitual behaviors by modifying their psychological status. Thus, the adoption of family financial role models and financial socialization through peers and media can indirectly and favorably influence the financial behaviors of young professionals. Through psychological characteristics, financial socialization is understood to be a process that affects people's PFMB. We thus hypothesize:

H3a-e. Individuals' psychological characteristics (attitude towards money, financial self-efficacy, financial risk tolerance, external locus of control and procrastination mediate the relationship between financial socialization (through parental direct teaching) and PFMB.

H4a-e. Individuals' psychological characteristics (attitude towards money, financial self-efficacy, financial risk tolerance, external locus of control and procrastination) mediate the relationship between financial socialization (through peers and media) and PFMB.

2.4 Mediating role of financial literacy in the relationship between psychological characteristics and PFMB

Psychology literature suggests financial literacy might mediate the link between attitude and behavior (Eagly and Chaiken, 1993; Barbić *et al.*, 2019). To make informed judgments, individuals must gain a complete grasp of financial products due to the existence of several complicated financial instruments. Clearly, financial literacy is an essential driver of financial behavior. Further investigation of the relationship between psychological traits and financial literacy is a viable and intriguing field of study (Murphy, 2013). Together, they may explain a substantial disparity between the different components of financial well-being.

Bhushan and Medury (2014) stated that in order to increase financial literacy among generations, a country's population must establish positive financial attitudes. Only then can any financial education program provide genuine results. Ajzen (1991) determined that a financial decision-maker's attitude is the result of a given behavior, and that this attitude may be reinforced by their economic and non-economic ideas. Past studies have shown a correlation between young adults' financial attitudes and financial literacy (Shanmugam *et al.*, 2023). To apply anything beyond the setting in which it was learnt, it is vital to establish desired attitudes that promote solid and sound financial behavior (Shim *et al.*, 2009) and to have self-efficacy in making smart financial judgments. Amagir *et al.* (2018) contend that financial knowledge, attitudes toward money and financial behavior comprise the concept known as "financial literacy."

Numerous studies have revealed that locus of control has a correlation with academic ability (see Stipek, 1980 for a review). People having an internal instead of external locus of control are driven, vigilant and information-seeking in order to improve their life possibilities (Judge and Bono, 2001). When confronted with adversity, they overcome it by concentrating on the issue and cultivating the talents required to improve the circumstance (Arslan *et al.*, 2009). As psychological characteristics might influence financial literacy of individuals which may improve their PFMB, this research emphasizes the necessity of including mediation of financial literacy. Based on the above argument, we hypothesize:

H5a-e. Individuals' financial literacy mediates the relationship between psychological characteristics (attitude towards money, financial self-efficacy, financial risk tolerance, external locus of control and procrastination) and PFMB.

2.5 Mediating role of financial literacy in the relationship between financial socialization and PFMB

Given the intimate connection between socialization and cognitive and behavioral aptitude, prior research advocates for financial socialization (Gudmunson and Danes, 2011). Understanding the extent to which consumer socialization agents influence young people in developing consumer skills, and knowledge is central to consumer socialization theory (McLeod and O'Keefe, 1972). Socialization helps young individuals to achieve financial literacy (Sohn *et al.*, 2012). Family, particularly parents, is one of the key socialization agents for adolescents when acquiring financial knowledge (Lyons *et al.*, 2006).

Lachance and Legault (2007) argue that peers impact teens' knowledge, including product choice and consumer competence. According to these authors' study, college students who saw consumption as a method to belong to or be accepted by their peers were less likely to be competent consumers than those who sought consumer advice from peers. Media also socializes young consumers. Thirty-three percent of high school and college students reported using media and the internet to get financial information, according to Lyons *et al.* (2006). Loibl and Hira (2006), in turn, argue that television viewing is linked to teenagers' purchase requests, brand awareness, materialistic attitudes and financial actions. These authors claimed that media sources are effective self-directed learning tools for financial knowledge. Therefore, the significance of financial socialization agents in shaping financial knowledge and subsequent financial behavior for young individuals is important.

We expect that objective financial knowledge serves as a mediator to explain how financial socialization enhances young professionals' financial behavior. That is, financial socialization enhances objective financial knowledge, which in turn induces better financial behaviors. If one concentrates exclusively on the direct impact, one might conclude that increasing financial education is not an effective technique for improving financial behavior among young people (Kaiser *et al.*, 2022). Following the above arguments, we hypothesize:

H6a-b. Individuals' financial literacy mediates the relationship between financial socialization (through parental direct teaching and peers and media) and PFMB.

3. Data and methodology

3.1 Participants and procedure

The data was collected using an online survey between April 2021 and December 2021. This method was chosen because the study's target population was spread out over a large area. It was hard and expensive to get in touch with each respondent personally to give them a questionnaire. Follow-up emails, text messages and gentle reminders helped boost response. The sampling frame included only young professionals aged between 25 and 40 years, representing generation Y or millennials. The term professional refers to a person whose employment needs formal qualification, expertise, or training in order to be performed. Examples include physicians, lawyers, academics, information technology/business process outsourcing employees, certified public accountants, bank officials, etc. According to the Ministry of Labor and Employment Labor Bureau's (2016) quarterly employment report, manufacturing accounts for the largest percentage (49%) of all jobs, followed by the education sector (24%), the information technology and business process outsourcing sector (5%) and the healthcare sector (6%). In India, professionals cover a sizable segment in the workforce.

To access our target population, we used purposive sampling which is not reliant on chance and has a better chance of reaching specific target populations (Biernacki and Waldorf, 1981). Purposive sampling is a form of non-probability sampling which is used if one needs a deliberate selection of a participant based on particular qualities, such as age and occupation in our study, to ensure participants have relevant knowledge and experience (Etikan *et al.*, 2016). Purposive sampling contrasts with probability sampling in which all population members have an equal chance of being chosen as part of a random sample (Biernacki and Waldorf, 1981).

The instrument was pilot tested on 125 young professionals. Both academics and professionals in the field of personal financial planning reviewed the instrument for any errors in substance, phrasing, length, or structure. After making some minor alterations based on these individuals' feedback, we then proceeded to main data collection from young working professionals. In all, 747 responses were obtained via the online survey. After 30 responses were eliminated from consideration due to sample unsuitability (not falling within the specified age group of 25–40 years), a total of 717 were deemed valid and were included in our analyses.

Table 1 displays the socio-demographic characteristics of the respondents. Males constituted 63.04% of the sample (n = 452) with females constituting 36.96% of the sample (n = 265). Only few respondents annually earned (after deducting tax) less than INR 2.5 lakhs (less than USD 3,136.28) (13.53%, n = 97). Most respondents earned between INR 2.5 lakhs and INR 5 lakhs (USD 3,136.28 – USD 6,272.56) (25.10%, n = 180), followed closely by earning between INR 5 lakhs and INR 7.5 lakhs (USD 6,272.56 – USD 9408.84) (23.43%, n = 168), earning between INR 7.5 lakhs and INR 10 lakhs (USD 9408.84 – USD 12545.12) (16.30%, n = 117) and more than INR 10 lakhs (more than USD 12,545.12) (21.62%, n = 155). Most respondents were married (47.56%, n = 341), followed by those being single (45.33%, n = 325), with few being either divorced (5.16%, n = 37) or widowed (1.95%, n = 14).

In terms of education, 47.80% (n = 343) of respondents were graduates (bachelor's degree), 38.10% (n = 273) were post-graduates (master's degree) and 14.10% (n = 101) had a doctoral degree. In terms of occupation, 31.52% (n = 226) were active in teaching and research, 16.87% (n = 121) were associated with IT/IT services/Hardware/Software, 12.55% (n = 90) were banking and insurance professionals, 8.23% (n = 59) were medical or healthcare professionals, 7.53% (n = 54) were Chartered Accountant/Company Secretary/Certified Management Accountant/Chartered Financial Analyst Financial Planner/Accounting professionals, and the rest were associated with hotel, legal, construction, fashion and other types of professions (include percentage and numbers here). Finally, the largest group of respondents (35.98%, n = 258) did not have any dependents, 16.18% (n = 116) had a single dependent, 25.80% (n = 185) had two dependents and 22.04% (n = 158) had more than two dependents.

3.2 Non-response bias and common method variance (CMV)

A potential drawback of online survey research is non-response bias (Deutskens *et al.*, 2004). To assess the likelihood of non-response bias, we compared early and late respondents using a paired sample *t*-test (Ross and Willson, 2017). This method assumes that late respondents are more likely to share characteristics with non-responders than early respondents. The research compared the responses of early (100 responses) and late (100 responses) respondents to the scales of all the variables to see if there were statistically significant variations between the responses (Armstrong and Overton, 1977). Initial and late responses were not substantially different. This alleviated concerns about non-response bias.

Characteristics	Group	Frequency	Percentage
Gender	Male	452	63.00
	Female	265	37.00
Marital status	Single	325	45.30
	Married	341	47.60
	Widowed	14	2.00
	Divorced	37	5.20
Annual income	< INR 2.5 lakhs	97	13.50
	INR 2.5 lakhs–INR 5 lakhs	180	25.10
	>INR 5 lakhs–INRs 7.5 lakhs	168	23.40
	>INR 7.5 lakhs–INR 10 lakhs	117	16.30
	>INR 10 lakhs	155	21.60
Profession	Banking and insurance professional	90	12.60
	CA/CS/CMA/CFA/Financial Planner/Accounting professional	54	7.50
	Healthcare professional	59	8.20
	IT/IT services/Hardware/Software professional	121	16.90
	Teaching/Education professional	226	31.50
	Others (Hotel, legal, construction, Contractors, Creative designers, freelancers, fashion, etc.)	167	23.30
Education	Graduate (Bachelor's degree)	343	47.80
	Post-graduate (Master's degree)	273	38.10
	Doctorate	101	14.10
Number of dependents	0	258	36.00
	1	116	16.20
	2	185	25.80
	>2	158	22.00

Note(s): CA= Chartered Accountant, CS=Company Secretary, CMA=Certified Management Accountant, CFA=Certified Financial Analyst, IT=Information Technology. Dependent here means a person whom an individual financially supports on a regular basis either living together or is living apart
Source(s): Authors own creation

Table 1. Demographic profile of the respondents

Self-report data, item attributes and item/measurement situation are the possible sources of CMV (Podsakoff *et al.*, 2003). To detect the CMV statistically, the current study utilized the Harman single factor test (Harman and Harman, 1976). In this test, the presence of CMV is indicated if only one factor explains for the majority of the variation (50%) in principal component analysis without rotation (Podsakoff *et al.*, 2003). According to Harman's single factor test, in our study the largest variation explained by a single latent component is 34.73%, which is below the 50% criterion. This contributes to the conclusion that CMV is not a major concern in this investigation. We also conducted Kock's (2015) full collinearity test to assess the presence of CMV. Recent research (Singh and Söderlund, 2020; Singh, 2021) demonstrates that the full collinearity test is gaining traction in the marketing literature. For the latent variables we used in the analysis, the maximum variance inflation factor (VIF) was 2.62. This value is again below the cut-off value of 3.30 that is said to be indicative of CMV (Kock, 2015).

3.3 Measures

3.3.1 Dependent variable. We used the Dew and Xiao (2011) scale of 15 items to measure the dimensions of PFMB: cash flow management, saving, investing, credit management and insurance. The construct was scored on a 5-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree). The scale had an excellent reliability with a Cronbach's alpha value of 0.978.

3.3.2 Independent variables. The independent variables included attitude towards money, financial self-efficacy, financial risk tolerance, external locus of control, procrastination, financial socialization through parental direct teaching and peers and media, and financial literacy. The 12 items about the attitude towards money were taken from the money ethic scale which includes three dimensions: success (a *cognitive* component), budget (a *behavioral* component) and evil (an *affective* component) (Tang, 1995) (Cronbach's alpha = 0.963). The items on evil component were negatively worded and therefore were reverse coded. The six items of financial self-efficacy were taken from Lown (2011) (Cronbach's alpha = 0.967). The six items about people's tendency to procrastinate came from Steel (2010) (Cronbach's alpha = 0.888). The seven items of locus of control were taken from Perry and Morris (2005) (Cronbach's alpha = 0.934), and five items of financial risk tolerance were adapted from the scale of Grable and Joo (2004) (Cronbach's alpha = 0.910). Next, the questionnaire comprised questions about respondents' level of financial socialization through parental direct teaching and peers and media. It fetched information about how their social groups helped them and how they learned when they were young. The six items of parental direct teaching were taken from Shim *et al.* (2010) (Cronbach's alpha = 0.950) and five items of peers and media came from Hira *et al.* (2013) (Cronbach's alpha = 0.926). All of the above constructs were measured on a 5-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree.

The questionnaire proceeded with the 13 questions testing respondents' financial knowledge as per Lusardi and Mitchell (2017), distinguishing between five basic and eight advanced financial literacy. There was a "Don't know" option for each question to avoid guessing. The scale of financial literacy is treated as a formative measure and therefore, we presented mean value, minimum score and maximum score (Hoffmann and Plotkina, 2021a; Schomburgk and Hoffmann, 2023). Table 2 presents the adapted scales with items, factor loadings and construct validity.

4. Analysis and results

4.1 Partial least squares structural equation modeling

This study used partial least squares structural equation modeling (PLS-SEM) through the software *SmartPLS 4* to analyze the data. In order to maximize the explained variance of the dependent latent constructs through regression-based ordinary least squares (OLS) estimations, this paper adopted the PLS-SEM method (Hair *et al.*, 2011). Covariance-based SEM (CB-SEM), which only takes into account the common variance rather than the total variance to estimate model parameters, is the other widely used SEM technique (Hair *et al.*, 2014). The PLS-SEM method has gained enormous acceptance as a data analysis tool for evaluating relatively complex models in recent years (Hair *et al.*, 2014). Evaluation of PLS-SEM involves two stages: the measurement model and the structural model, which, when combined, constitute the structural equation model. First, the reflective (or formative) variables' measurement quality is evaluated. The structural model can be evaluated if the measurement model or outer model describes the relationships between the latent variables and their indicators (Sarstedt *et al.*, 2017). The structural model, or inner model, is then evaluated by assessing the hypothesized relationships between latent variables (Sarstedt *et al.*, 2017). First, we examined the outer or measurement model to determine uni-dimensionality, reliability, discriminant validity and convergent validity. Second, we evaluated the inner or structural model for detecting relationships based on path coefficient values to test the hypotheses.

4.2 Analysis of the measurement model

Table 2 shows that internal reliability of all the constructs was established using Cronbach's alpha, which should be above the recommended cut-off value of 0.70 (Nunnally, 1978). Table 2 also demonstrates that the first eigen value for each structure was more than 1, and the second eigen value was less than 1. Consequently, we conclude that all constructs were unidimensional.

Table 2. Variable description and validity and reliability of the measurement instrument

Construct	Mean	S.D.	Item	Statement	Cronbach's alpha	First eigen value	Second eigen value	Factor loadings	CR	AVE
Attitude Towards Money = 12	3.58	0.92	ATM1	According to me money is a symbol of success	0.964	8.616	0.98	0.866	0.964	0.717
			ATM2	I believe that money will help me express my competence and abilities						0.875
			ATM3	I believe that money represents one's achievement						0.864
			ATM4	I value money very highly						0.866
			ATM5	I believe that money makes people respect you in the community						0.859
			ATM6	I believe that money can give you the opportunity to be what you want to be						0.887
			ATM7	I believe that money gives you autonomy and freedom						0.885
			ATM8	According to me money is important						0.887
			ATM9	I budget my money very well						0.855
			ATM10	I use my money very carefully						0.828
			ATM11	I believe that money is the root of all evil.(R)						0.715
			ATM12	According to me, money is evil.(R)						0.758
Financial Self-Efficacy = 6	2.69	1.45	FSE1	It is hard to stick to my spending plan when unexpected expenses arise	0.967	5.161	0.416	0.966	0.985	0.859
			FSE2	It is challenging to make progress toward my financial goals						0.958
			FSE3	When unexpected expenses occur I usually have to use credit						0.941
			FSE4	When faced with a financial challenge, I have a hard time figuring out a solution						0.95
			FSE5	I lack confidence in my ability to manage my finances						0.775
			FSE6	I worry about running out of money in retirement						0.957
Financial Risk Tolerance = 5	3.34	1.11	FRT1	Investing is too difficult to understand for me	0.913	3.716	0.971	0.727	0.984	0.681
			FRT2	I am more comfortable putting my money in a bank account than in the stock market.						0.721
			FRT3	When I think of the word "risk" the term "loss" comes to mind immediately						0.737
			FRT4	Making money in stocks and bonds is based on luck						0.952
			FRT5	In terms of investing, safety is more important than returns						0.954

(*continued*)

Construct	Mean	S.D.	Item	Statement	Cronbach's alpha	First eigen value	Second eigen value	Factor loadings	CR	AVE
External Locus of Control = 7	2.29	1.06	LOC1	There is really no way I can solve some of my problems	0.949	5.101	0.783	0.91	0.952	0.797
			LOC2	I am being pushed around in my life						0.906
			LOC3	I can change the important things in my life by myself.(R)						0.889
			LOC4	I can do anything I set my mind to.(R)						0.909
			LOC5	What happens to me in the future depends on me.(R)						0.89
			LOC6	I'm helpless in dealing with the problems of life						0.572
			LOC7	I have little control over the things that happen to me						0.841
Procrastination = 6	2.14	1.09	PROC1	I put things off so long that my well-being or efficiency unnecessarily suffers	0.931	4.009	0.92	0.899	0.934	0.783
			PROC2	My life would be better if I did some activities or tasks earlier						0.855
			PROC3	When I should be doing one thing, I will do another						0.874
			PROC4	At the end of the day, I know I could have spent the time better						0.875
			PROC5	I delay tasks beyond what is reasonable						0.324
			PROC6	I procrastinate						0.912
Parental Direct Teaching = 6	3.51	1.04	PDT1	My parents discussed family financial matters with me while I was growing up	0.952	4.843	0.316	0.924	0.955	0.807
			PDT2	My parents spoke to me about the importance of saving						0.905
			PDT3	My parents taught me how to be a smart shopper						0.889
			PDT4	My parents taught me how to use a credit card appropriately						0.887
			PDT5	My parents discussed how to establish a good credit rating						0.892
			PDT6	My parents discussed how to finance my college education with me						0.893

(continued)

Table 2.

Table 2.

Construct	Mean	S.D.	Item	Statement	Cronbach's alpha	First eigen value	Second eigen value	Factor loadings	CR	AVE
Peers and Media = 5	3.18	1.09	PEERS1	I obtained information about financial matters from friends or colleagues	0.928	3.886	0.48	0.899	0.931	0.777
			MEDIA1	I obtained information about financial matters from the internet.						0.881
			MEDIA2	I obtained information about financial matters from the TV programs						0.878
			MEDIA3	I obtained information about financial matters from Radio programs						0.835
			MEDIA4	I obtained information about financial matters from the Newspapers, magazines, newsletters or books						0.912
Personal Financial Management Behavior = 15	3.36	1.14	PFMB1	I compare prices when I purchase a product or service	0.983	11.712	0.865	0.907	0.985	0.825
			PFMB2	I pay all my bills on time						0.928
			PFMB3	I keep a written or electronic record of my monthly expenses						0.875
			PFMB4	I stay within my budget or spending plan						0.927
			PFMB5	I pay my loan balance in full each month						0.916
			PFMB6	I reduce my outstanding loan and mortagage						0.405
			PFMB7	I return what I borrow on time if I borrow from friends						0.912
			PFMB8	I maintain an emergency savings fund						0.946
			PFMB9	I save money from every pay check						0.926
			PFMB10	I save for a long term goal such as a car, education, home, etc						0.936
			PFMB11	I contribute money to a retirement account						0.928
			PFMB12	I buy bonds, stocks, or mutual funds						0.764
			PFMB13	I maintain an adequate health insurance policy						0.913
			PFMB14	I maintain an adequate property insurance like auto or homeowners insurance						0.908
			PFMB15	I maintain an adequate life insurance						0.914

(*continued*)

Construct	Mean	S.D.	Item	Statement	Cronbach's alpha	First eigen value	Second eigen value	Factor loadings	CR	AVE
Financial Literacy	0	1	Basic Financial Literacy (BFL): Numeracy	Suppose you had INR100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow? i. *More than INR102* ii. Exactly INR102 iii. Less than INR102 iv. Do not know	N/A[b]	N/A[b]	N/A[b]	N/A[b]	N/A[b]	N/A[b]
			Compound Interest	Suppose you had INR100 in a savings account and the interest rate is 20% per year and you never withdraw money or interest payments. After 5 years, how much would you have in this account in total? i. *More than INR 200* ii. Exactly INR 200 iii. Less than INR 200 iv. Do not know						
			Inflation	Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account? i. More than today ii. Exactly the same iii. *Less than today* iv. Do not know						
			Time Value of Money	Assume a friend inherits INR 10,000 today and his sibling inherits INR 10,000 3 years from now. Who is richer because of the inheritance? i. *My friend* ii. His sibling iii. They are equally rich iv. Do not know						

(*continued*)

Table 2.

Table 2.

Construct	Mean	S.D.	Item	Statement	Cronbach's alpha	First eigen value	Second eigen value	Factor loadings	CR	AVE
			Money Illusion	Suppose that in the current year your income has doubled and prices of all goods have doubled too. How much do you think you will be able to buy with your income? i. More than today ii. *The same as today* iii. Less than today iv. Do not know						
			Advanced Financial Literacy (AFL): Stock Market	Which of the following statements describes the main function of the stock market? i. The stock market helps to predict stock earnings ii. The stock market results in an increase in the price of stocks iii. *The stock market brings people who want to buy stocks together with those who want to sell stocks* iv. None of the above v. Do not know	N/A[b]	N/A[b]	N/A[b]	N/A[b]	N/A[b]	N/A[b]
			Mutual Funds	Which of the following statements regarding mutual funds is correct? i. Once one invests in a mutual fund, one cannot withdraw the money in the first year ii. Mutual funds can invest in several assets, for example, in both stocks and bonds iii. *Mutual funds pay a guaranteed rate of return that depends on their past performance* iv. None of the above v. Do not know						
			Bond Price	If the interest rate falls, what should happen to bond/debenture prices? i. *Rise* ii. Fall iii. Stay the same iv. None of the above v. Do not know						

(*continued*)

Table 2.

Construct	Mean	S.D.	Item	Statement	Cronbach's alpha	First eigen value	Second eigen value	Factor loadings	CR	AVE
			Safe Return	Buying a single company stock usually provides a safer return than a stock mutual fund i. True ii. *False* iii. Do not know						
			Stocks/Bonds	True or false? Stocks are normally riskier than bonds i. *True* ii. False iii. Do not know						
			Highest Long Period Return	Consider a long time period (e.g., 10 or 20 years), which asset normally gives the highest long period return? i. Savings accounts ii. Bonds iii. *Stocks* iv. Do not know						
			Highest Fluctuation	Normally, which asset displays the highest fluctuations over time? i. Savings accounts ii. Bonds iii. *Stocks* iv. Do not know						
			Risk Diversification	When an investor spreads his money among different assets, the risk of losing money i. Increases ii. *Decreases* iii. Stays the same iv. Do not know						

Note(s): Italic text in the item wording column indicates the correct answer for the multiple-choice financial literacy scales. The mean score and the standard deviation (S.D.) represent the average Likert score across all the items on the scale. (R) means the item is reverse coded. CR=Composite Reliability, FL= Financial Literacy, AVE = Average Variance Extracted, (b) = not applicable, as it is a formative construct, correct answers for financial literacy are indicated in Italic
Source(s): Authors own analysis

Composite reliability, factor loadings and average variance extracted (AVE) were utilized to establish convergent validity which is the extent to which a latent construct is explained by its observed variables (Hair *et al.*, 2014). First, we analyzed the composite reliability (CR) of all the reflective constructs. CR measures the overall reliability of a collection of indicators loaded on a latent construct (Hussain *et al.*, 2019). In this study, as is evident in Table 2, all CR values were greater than 0.70, indicating that the scales were reliable (Kumar and Rahman, 2016; Hussain *et al.*, 2019). Second, the standard loadings of each item fell within the limit (threshold >0.7) (Hair *et al.*, 2014). As evident in Table 2, all factor loadings are above 0.70, apart from LOC6 (0.572), PROC5 (0.324) and PFMB6 (0.405). Since these three items were well below the threshold, we removed them from our further analysis. The third method evaluates the average variance extracted (AVE) values for each of the reflective constructs. AVE indicates the average variance that a construct is able to extract from each measurement item that loads on it. The eight constructs have AVE values ranging from 0.681 to 0.859 (threshold>0.50) (Hair *et al.*, 2010) as shown in Table 2. All constructs' AVEs are above the 0.5 threshold level, thus indicating convergent validity.

Discriminant validity is a measure of how a construct differs from other constructs within the same model and whether each construct measures separate concepts (Hair *et al.*, 2010). This research employed two ways to examine the discriminant validity. First method followed the Fornell-Larcker criterion (Fornell and Larcker, 1981). Discriminant validity is stated to exist if the square root of the AVE of each construct is greater than the correlation between each pair of constructs. Table 3 demonstrates that the aforementioned condition was satisfied, hence establishing discriminant validity between the constructs. In recent literature, Henseler *et al.* (2015) propose the alternative use of the Heterotrait-Monotrait ratio (HTMT) to evaluate discriminant validity. According to the authors, the HTMT value should be below 0.85 or 0.90. Table 4 indicates that all HTMT values were below this recommended threshold, thus further establishing discriminant validity.

4.3 Structural model

4.3.1 Model fit and structural relationships. To test the model fit and structural relationships, t-values and confidence intervals were generated using the bootstrapping function of SmartPLS. Following the recommendation of Hair *et al.* (2011), the significance of the path coefficients was determined using 5,000 bootstrapped samples. In the PLS-SEM literature, the model fit of a structural model is still debatable, and current guidelines are regarded as provisional (Hair *et al.*, 2019). The R^2 can be used as a measure of model fit, and according to Hair *et al.* (2019), values of 0.25, 0.50 and 0.75 indicate a model with weak, moderate and substantial explanatory power, respectively.

Table 3. Discriminant validity of the measurement model- fornell-larcker

	ATM	FRT	FSE	LOC	PDT	PEEMEDIA	PFMB	PROC
ATM	*0.847*							
FRT	0.15	*0.826*						
FSE	−0.276	0.027	*0.927*					
LOC	−0.667	−0.394	0.249	*0.893*				
PDT	0.399	−0.136	−0.439	−0.217	*0.898*			
PEEMEDIA	0.419	0.212	−0.373	−0.491	0.323	*0.881*		
PFMB	0.687	0.438	−0.154	−0.793	0.276	0.491	*0.908*	
PROC	−0.438	−0.186	0.511	0.569	−0.297	−0.546	−0.517	*0.885*

Note(s): The square root of average variance extracted (AVE) is displayed in italics. The correlations of the latent constructs are the non-italic values
Source(s): Authors own analysis

In the present study, the hypothesized drivers jointly account for 76% of the variance in overall PFMB. The standardized root mean squared residual (SRMR) has gained popularity as a measure of model fit (Benitez *et al.*, 2020; Henseler *et al.*, 2014; Pavlov *et al.*, 2021). The model's SRMR was 0.077, which is below the recommended value of 0.080 (Benitez *et al.*, 2020), indicating an acceptable model fit.

The testing of hypotheses was undertaken to assess the direct effects of psychological characteristics and financial socialization on PFMB. Path analysis revealed that external locus of control ($\beta = -0.487, p \le 0.001$, t-value = 8.817) had the greatest negative influence on PFMB, followed by attitude towards money ($\beta = 0.264$, $p \le 0.001$, t-value = 5.388) with a positive influence on PFMB. We also found out that having financial self-efficacy positively influenced individuals' PFMB ($\beta = 0.173, p \le 0.001$, t-value = 7.028). Financial risk tolerance positively affected PFMB ($\beta = 0.171$, $p \le 0.001$, t-value = 5.705), and procrastination negatively influenced PFMB ($\beta = -0.108$, $p \le 0.01$, t-value = 2.754). The financial socialization factor of parental direct teaching positively influenced PFMB ($\beta = 0.106$, $p \le 0.01$, t-value = 3.114) and so did peers and media ($\beta = 0.074, p \le 0.05$, t-value = 1.901). Table 5 shows the direct effects in hypothesis testing.

4.3.2 Effect size and predictive relevance. To assess the size of the direct effects, Cohen's f^2 can be used to evaluate the contribution of R^2 in the dependent variables from the independent variables. As a rule of thumb, the f^2 suggests a small direct effect if its value is greater than 0.020, a medium direct effect if its value is greater than 0.150, and a large direct effect if its value is greater than 0.350 (Hair *et al.*, 2011). As depicted in Table 5, there

HTMT	ATM	FRT	FSE	LOC	PDT	PEEMEDIA	PFMB	PROC
ATM								
FRT	0.133							
FSE	0.27	0.235						
LOC	0.69	0.297	0.257					
PDT	0.415	0.205	0.448	0.223				
PEEMEDIA	0.44	0.194	0.387	0.518	0.344			
PFMB	0.703	0.345	0.155	0.818	0.283	0.511		
PROC	0.453	0.203	0.524	0.609	0.314	0.585	0.535	

Note(s): This table shows the HTMT values for each construct
Source(s): Authors own analysis

Table 4. Discriminant validity of the measurement model- HTMT criterion

Hypothesis	Path	Path coefficient	t-value	Result	Direct effect size f^2	95% CI 2.5%	97.5%
$H1_a$	ATM→PFMB	0.264	5.388***	Supported	0.126(S)	0.165	0.358
$H1_b$	FSE→PFMB	0.173	7.028***	Supported	0.075(S)	0.126	0.222
$H1_c$	FRT→PFMB	0.171	5.705***	Supported	0.093(S)	0.113	0.229
$H1_d$	EXTERNAL LOC→PFMB	−0.487	8.817***	Supported	0.331(M)	−0.598	−0.384
$H1_e$	PROC→PFMB	−0.108	2.754***	Supported	0.021(S)	−0.185	−0.031
$H2_a$	PDT→PFMB	0.106	3.114***	Supported	0.030(S)	0.038	0.173
$H2_b$	PEEMEDIA→PFMB	0.074	1.901*	Supported	0.031(S)	−0.004	0.150

Note(s): ***significant at ≤ 0.001 level, **significant at ≤ 0.01 level and *significant at ≤ 0.05 level. The parenthesis indicates the interpretation of the effect size; S = small≥0.02; M = medium≥0.15
Source(s): Authors own analysis

Table 5. Hypothesis testing results: Direct effects

was a small or medium direct effect for all relationships. First, the effect size of external locus of control on PFMB was slightly below the 0.350 threshold, suggesting that it has a greater effect on overall PFMB than all other constructs.

4.3.3 Mediation effects. We used PLS-SEM to test the proposed model's mediation. Confidence intervals for the path coefficients were determined using the bootstrapping approach. This approach is a resampling technique that utilizes the original sample as a replacement to get standard errors for hypothesis testing (Preacher and Hayes, 2008). To demonstrate mediation, the two-step approach of Nitzl *et al.* (2016) was followed. The first step involves determining whether the specific indirect effect is significant, as assessed through the bootstrapped *t*-values and bias-corrected confidence interval within SmartPLS. Table 6 shows that the four specific indirect effects were significant as indicated by their *t*-values and zero not appearing in the confidence interval. The second step involves assessing whether the direct effects are significant.

Table 6 displays the outcomes for the mediation effects of the psychological characteristics and financial literacy. If mediation is statistically significant and the coefficient between the independent and the dependent variable is also significant, then partial mediation may be inferred. For $H3_a$, the results showed that parental direct teaching had a positive effect on PFMB through attitude towards money ($\beta = 0.076, p \leq 0.001$), with the effect being partial mediation as the inclusion of attitude towards money did not turn insignificant the direct effect of parental direct teaching on PFMB. Results related to $H3_b$ showed that parental direct teaching had a significant effect on PFMB through financial self-efficacy ($\beta = 0.061, p \leq 0.001$), with the effect being partial mediation again as financial self-efficacy as a mediator failed to turn insignificant the direct effect of parental direct teaching on PFMB. For $H3_c$, the results revealed that parental direct teaching had a significant effect on PFMB through financial risk tolerance ($\beta = 0.038, p \leq 0.001$), with the effect also being partial mediation as the inclusion of financial risk tolerance did not turn insignificant the direct effect of parental direct teaching on PFMB. The results of $H3_d$ and $H3_e$ showed that

Hypothesis	Relationship	Direct effect	Path coefficient	*t*-value	95% CI 2.50%	95% CI 97.50%
H3a	PDT→ATM→PFMB	0.106	0.076	4.549***	0.045	0.110
H3b	PDT→FSE→PFMB	0.106	0.061	5.381***	0.002	0.085
H3c	PDT→FRT→PFMB	0.106	0.038	3.900***	0.010	0.060
H3d	PDT→EXTERNAL LOC→PFMB	0.106	0.026	1.235	−0.016	0.067
H3e	PDT→PROC→PFMB	0.106	0.011	1.562	0.000	0.026
H4a	PEEMEDIA→ATM→PFMB	0.074	0.087	4.643***	0.053	0.126
H4b	PEEMEDIA→FSE→PFMB	0.074	0.045	4.718***	0.028	0.078
H4c	PEEMEDIA→FRT→PFMB	0.074	0.049	4.702***	0.030	0.071
H4d	PEEMEDIA→EXTERNAL LOC→PFMB	0.074	0.240	6.724***	0.176	0.318
H4e	PEEMEDIA→PROC→PFMB	0.074	0.044	2.020**	0.002	0.089
H5a	ATM→FL→PFMB	0.264	0.010	1.626	0.000	0.024
H5b	FSE→FL→PFMB	0.173	0.008	1.810	0.001	0.017
H5c	FRT→FL→PFMB	0.171	0.004	1.140	−0.001	0.014
H5d	EXTERNAL LOC→FL→PFMB	−0.487	−0.009	1.549	−0.022	0.000
H5e	PROC→FL→PFMB	−0.108	−0.023	2.395**	−0.043	−0.006
H6a	PDT→FL→PFMB	0.106	0.014	2.210**	0.003	0.027
H6b	PEEMEDIA→ FL →PFMB	0.074	0.015	2.191**	0.003	0.030

Note(s): ***significant at ≤ 0.001 level, **significant at ≤ 0.05 level
Source(s): Authors own analysis

Table 6.
Hypotheses testing results: Mediation effects

parental direct teaching did not significantly influence PFMB through external locus of control and procrastination, respectively.

For $H4_{a,}$ the results showed that financial socialization through peers and media had a positive effect on PFMB through attitude towards money ($\beta = 0.087, p \leq 0.001$), with the effect being partial mediation as the inclusion of attitude towards money reduced the influence, but did not turn insignificant the direct effect of peers and media on PFMB. Results related to $H4_b$ showed that peers and media had a significant effect on PFMB through financial self-efficacy ($\beta = 0.045, p \leq 0.001$), with the effect being partial mediation because financial self-efficacy as a mediator failed to turn insignificant the direct effect of peers and media on PFMB. For $H4_c$, the results revealed that peers and media significantly influenced PFMB through financial risk tolerance ($\beta = 0.049, p \leq 0.001$). The results of $H4_d$ showed that peers and media had a positive effect on PFMB through external locus of control ($\beta = 0.240, p \leq 0.001$), with the effect being partial mediation as the inclusion of external locus of control again did not turn insignificant the direct effect of peers and media on PFMB. Regarding $H4_e$, the results revealed that peers and media had a positive effect on PFMB through procrastination ($\beta = 0.044, p \leq 0.05$), with the effect being partial mediation as well since the inclusion of financial risk tolerance reduced the influence but did not turn insignificant the direct effect of peers and media on PFMB.

For $H5_a$- $H5_{d,}$ the results showed that attitude towards money, financial self-efficacy, financial risk tolerance and external locus of control failed to affect PFMB significantly through financial literacy. Regarding $H5_e$, the results revealed that procrastination had a negative effect on PFMB through financial literacy ($\beta = -0.023, p \leq 0.05$), with the effect being partial mediation as the inclusion of financial literacy reduced the influence, but did not turn insignificant the direct effect of procrastination on PFMB.

Results regarding $H6_a$ showed that financial socialization through parental direct teaching had a positive effect on PFMB through financial literacy ($\beta = 0.014, p \leq 0.05$), with the effect being partial mediation as the inclusion of financial literacy reduced the influence, but did not turn insignificant the direct effect of parental direct teaching on PFMB. Results related to $H6_b$ showed that financial socialization through peers and media had a positive effect on PFMB through financial literacy ($\beta = 0.015, p \leq 0.05$), with the effect being partial mediation because financial literacy as a mediator reduced the effect but failed to turn insignificant the direct effect of peers and media on PFMB.

The aforementioned findings demonstrate strong support for the hypotheses, particularly for the direct and the mediation effects. While attitude towards money, financial self-efficacy, financial risk tolerance, financial socialization through parental direct teaching and peers, and media are all positively associated with PFMB, external locus of control and procrastination are both negatively associated with PFMB. Almost all psychological characteristics partially mediate the association between financial socialization and PFMB. Finally, financial literacy plays a partially mediating role in the association between some of the psychological characteristics and PFMB and also between financial socialization and PFMB.

5. Discussion of results and implications

Regulators, policymakers, government agencies, financial educators and planners have all recognized that psychological characteristics and an individual's early upbringing play a critical influence in molding their PFMB (Tang *et al.*, 2015). These occurrences prompted us to investigate the relationship of five psychological characteristics – attitude towards money, financial self-efficacy, financial risk tolerance, external locus of control and procrastination, and the financial socialization construct with PFMB. We also looked at how these variables interact and how social influence, psychological characteristics and cognitive impact (financial literacy) affect PFMB.

5.1 The direct and indirect influence of psychological characteristics and financial socialization factors on PFMB

In this study, psychological characteristics constitute attitude towards money, financial self-efficacy, external locus of control, procrastination and financial risk tolerance. All the psychological characteristics of young professionals influence their PFMB. Attitude towards money, financial self-efficacy and financial risk tolerance are positively related to PFMB, while external locus of control and procrastination are negatively related to PFMB. This means that individuals who think that their success or failure depends on external things and those having a tendency to procrastinate exhibit low PFMB. The existing literature also emphasized the importance of these factors in influencing PFMB, therefore these results were expected (Goyal *et al.*, 2021). The results revealed that decision makers differ fundamentally from one another, and that these differences contribute to observable financial behavior differences. Our findings are consistent with the theory of planned behavior and the theory of consumer socialization. The results have practical implications for financial planning professionals, advisors and consumers. In particular, by developing an understanding of the influence of psychological characteristics and financial socialization factors on PFMB, regulators and policymakers can wisely channel the limited educational and counselling resources to address the issue of incommensurate personal financial planning.

Social factors include financial socialization through parental direct teaching, and peers and media. Both factors are positively related to PFMB. Young professionals whose parents have taught them about money in their childhood or early years perform more desirable PFMB. Similarly, those individuals who have received financial socialization through media such as Internet, television, radio, etc. And through their friends and colleagues also exhibit high PFMB. These findings are consistent with the theory of consumer socialization which states that through engaging with socialization agents, people—especially adolescents and early children—develop consumer skills, knowledge and attitudes. These results may help organizations, governmental agencies and educators of finance in their attempts to effectively teach young people to make more responsible financial choices. First, our findings suggest that there are several factors that influence young people's financial behavior. Financial behavior derives from deeply ingrained individual qualities that are influenced by social and psychological pressures, therefore cognitive financial knowledge alone may be a poor stimulus for changing financial behavior (Gudmunson and Danes, 2011). Consequently, programs shouldn't only concentrate on fostering financial literacy. Young individuals need chances to improve socialization and develop psychological characteristics in order to properly translate information into appropriate financial conduct. According to our research, including parents—who are young people' primary socialization agents—in financial education programs will increase the programs' efficacy. A segment for parents might be included in an online course for young people on financial literacy. Programs may promote improved parent–child communication in this manner. Parents are also better prepared with the information they need to provide their children with formal financial counselling and to set an example of responsible financial conduct that youngsters may follow.

Attitude towards money, financial self-efficacy and financial risk tolerance impact appropriate financial behavior, confirming the need for financial planners and therapists. Financial planners help clients establish and execute financial plans. Financial planner coaching may help customers with procrastination and external locus of control. Our findings imply that experts helping young people may be helpful when they help clients handle negative psychological characteristics in a wider sense than merely financially.

Our results show that financial socialization factors like parental direct teaching and peers and media were still influential on the PFMB when psychological characteristics come into play. There was no mediating role found for external locus of control and procrastination in the relationship between parental direct teaching and PFMB. Therefore, it can be argued that such factors take a back seat in the financial behavior and are not the influencers of the relationship between parental financial socialization and PFMB.

5.2 The mediating role of financial literacy in the relationship between psychological characteristics and PFMB and financial socialization and PFMB

Our findings show that financial habits are anchored in strongly held personality characteristics that are impacted by social and cognitive factors. Programs shouldn't thus just emphasize financial literacy. Instead, it was necessary to simultaneously provide chances to strengthen social influence and develop psychological characteristics in order to fully utilize and efficiently translate information into responsible conduct.

According to this research, those who have a strong tendency of procrastination and have higher external locus of control exhibit negative PFMB but the effect is comparatively lower through the mediation of financial literacy. Advisors and financial planners should be aware of this fact. They might adjust their programs in light of this study to encourage young people with tendency to procrastinate and having higher external locus of control to improve their financial literacy. When combined, this activity plus their improved financial preparation should result in an improved PFMB. According to studies, Indians exhibit poor levels of advanced financial literacy and are unaware of several advanced concepts related to managing money on a daily basis (Baker *et al.*, 2021). Additional research indicates that financial awareness content should be included in school and college curriculum to increase financial understanding. Furthermore, actions should be done to enhance future eyesight. To improve young professionals' financial literacy and help them build a clear sense of their future vision and financial goals, educational seminars and workshops organized by financial professionals and industry experts are required.

Additionally, all financial education programmes should be created and carried out with best practices in mind and should focus on those who are most in need given the limited funding available for financial education. Financial gaps across numerous distinct groups based on their varied psychological characteristics are unlikely to be adequately addressed by one-size-fits-all approaches.

5.3 Managerial and/or policy implications

The findings of this study enable us to recognize a new way of thinking about the relationship between cognitive, social, and psychological characteristics and PFMB in young people. If it is possible to determine which variables influence a consumer's PFMB and to what extent those variables influence money-related prosperity, helpful interventions can be designed to improve individuals' financial well-being. Financial planners can evaluate consumers' financial habits or choices as part of their information gathering procedure to provide a common language for investigating the impact of money convictions on monetary practices and anticipating potential threats to customers' financial well-being. Individuals' money beliefs, which they form as a result of their experience, age, family background and education, have a significant impact on their daily financial behaviors such as purchasing and spending. This study will help them understand the complexities of budgeting finance and buying and spending behaviors so that future purchasing and spending decisions can be made in a more rational manner and their money can be spent effectively. This research will assist the public sector in developing educational strategies to assist students, families and others in better organizing and managing their budgets, allowing for savings and avoiding defaults. For the government, this research can be used as one of the references to express and provide socialization through seminars in improving management, improving good financial attitudes and improving students' financial literacy, as well as providing curricula for higher education courses with good expectations from the community, particularly students. The study holds importance in achieving future life prosperity with some of the best ways to manage finances well.

6. Conclusion

Nowadays, people have more disposable income than ever, yet their financial management abilities are lagging behind. Due to the complexity of financial options, liberal credit laws and the increased self-responsibility for ensuring one's financial security in retirement, personal money management has recently assumed a position of preeminence (Hoffmann and Plotkina, 2021a, b). Mismanagement of one's financial resources, such as excessive spending or borrowing, is the result of a credit climate that is both hospitable in terms of the availability of credit and tolerant of those who use it (Tang *et al.*, 2015; Schomburgk and Hoffmann, 2023). Finally, the desire to "keep up with the Joneses" in society and a high ambition level are two psychological characteristics that contribute to this and are cited as an explanation for the high rate of credit card bankruptcy among the young (Nga *et al.*, 2011).

In this study, we look at how Indian young professionals manage their personal finances based on a variety of psychological characteristics, the influence of social factors and cognitive ability. It adds to what is already known by giving the latest information on how young professionals in India think about how should they behave when it comes to managing their own finances. Existing results on the psychological antecedents of PFMB are sometimes contradictory (Goyal *et al.*, 2021, 2022), highlighting the need for further research. Our study emphasizes the role of the financial literacy and psychological characteristics as mediators between financial socialization and PFMB, which is an addition to the existing research on PFMB (Perry and Morris, 2005; Tang *et al.*, 2015; Gamst- Klaussen *et al.*, 2019). We also add to the literature by offering empirical evidence of a congruence of cognitive, psychological and social echelons to discern PFMB. Also, the younger population is often particularly financially vulnerable (Hoffmann *et al.*, 2021). Our results back up the idea that a multidisciplinary approach is needed to study young professionals' complicated PFMB. It is hard to know how to take decisions regarding investments, cash flow management, saving and insurance. They need cognitive and personality traits to work together in a balanced way on both the psychological and social levels. Our research has practical consequences for planners, advisers and consumers. Regulators and policymakers may address incommensurate personal financial planning by analyzing the role of psychological factors on PFMB and how the psychology of different age groups manifests.

The primary contribution of our research is the identification of the substantial (direct and indirect) relationship between financial socialization (through parental direct teaching and peers and media) and young professionals' PFMB. Directly and indirectly, early learning from parents affects PFMB by extending attitude towards money, financial self-efficacy and financial risk tolerance. In several ways, social networks may impact financial choices. Young people, for instance, more inclined to accept suggestions from members of a reputable social network. Such a network may have a direct impact on their financial choices (Ostrovsky-Berman and Litwin, 2019). Although the social force factor has a moderate impact in most other countries (Franca and Hershey, 2018), the substantial influence of social groups in India indicates that Indian young professionals have an external locus of control. Therefore, they are more inclined to adopt similar behaviors as their close friends. To our knowledge, no research has looked at the function of parental influence, together with financial knowledge and individual psychological characteristics, in financial behavior.

This study has some limitations, which provide avenues for future research. First, we tried to cover young respondents from many different professions, but there might be some professions (such as cultivators, agricultural and fishery workers, legislators, senior officials, craftsmen, etc.) which are not represented in our data. As a result, caution is required when generalizing our findings to all employed or professional young Indians. Second, our selection of explanatory variables is driven by the relevant literature, but necessarily not exhaustive given limitations on survey length. To construct a more comprehensive model, future studies might include circumstantial factors (such as detention in jail, foreclosure on loan/mortgage, being a victim of crime, surviving a disaster, sudden inheritance, etc.), health status (including both physical and mental health) and financial experience. Furthermore, our research looks at PFMB in terms of cash flow management, credit management, savings and investment, and insurance. There could be other components of PFMB such as estate planning, and specifically retirement planning. We measured only intentions which are subjective. Although intentions are seen to be positively correlated with behavior (Hoffmann and Plotkina, 2020), future research might examine actual behavior in a real-world decision-making situation to address any self-reporting bias. Even though there is a lot of information about the psychological characteristics that affect how people plan for finances, there is still a lot to learn about the complex interaction of psychological, social and cognitive characteristics that affect how young consumers handle their personal finances.

References

Adzis, A.A., Bakar, J.A. and Shahar, H.K. (2017), "Factors influencing young adults' debt in Malaysia", *Journal of Business and Retail Management Research*, Vol. 12 No. 1, pp. 76-85.

Agarwalla, S.K., Barua, S.K., Jacob, J. and Varma, J.R. (2015), "Financial literacy among working young in urban India", *World Development*, Vol. 67, pp. 101-109.

Ajzen, I. (1991), "The theory of planned behavior", *Organizational Behavior and Human Decision Processes*, Vol. 50 No. 2, pp. 179-211.

Ajzen, I. (2011), "The theory of planned behavior: reactions and reflections", *Psychology and Health*, Vol. 26 No. 9, pp. 1113-1127.

Ajzen, I. and Fishbein, M. (1980), *Understanding Attitudes and Predicting Social Behavior*, Prentice Hall, Englewood Cliffs, NJ.

Allgood, S. and Walstad, W. (2013), "Financial literacy and credit card behaviors: a cross-sectional analysis by age", *Numeracy*, Vol. 6 No. 2, pp. 1-26.

Amagir, A., Wilschut, A. and Groot, W. (2018), "The relation between financial knowledge, attitudes towards money, financial self-efficacy, and financial behavior among high school students in The Netherlands", *Empirische Paedagogik*, Vol. 32 Nos 3/4, pp. 387-400.

Amagir, A., Groot, W., van den Brink, H.M. and Wilschut, A. (2020), "Financial literacy of high school students in The Netherlands: knowledge, attitudes, self-efficacy, and behavior", *International Review of Economics Education*, Vol. 34, 100185.

Antoni, D.Z., Rootman, C. and Struwig, F. (2019), "The influence of parental financial socialisation techniques on student financial behaviour", *International Journal of Economics and Finance Studies*, Vol. 11 No. 2, pp. 72-88.

Armstrong, J.S. and Overton, T.S. (1977), "Estimating nonresponse bias in mail surveys", *Journal of Marketing Research*, Vol. 14 No. 3, pp. 396-402.

Arslan, C., Dilmaç, B. and Hamarta, E. (2009), "Coping with stress and trait anxiety in terms of locus of control: a study with Turkish university students", *Social Behavior and Personality: An International Journal*, Vol. 37 No. 6, pp. 791-800.

Baker, H.K., Tomar, S., Kumar, S. and Verma, D. (2021), "Are Indian professional women financially literate and prepared for retirement?", *Journal of Consumer Affairs*, Vol. 55 No. 4, pp. 1416-1441.

Bamforth, J., Jebarajakirthy, C. and Geursen, G. (2018), "Understanding undergraduates' money management behaviour: a study beyond financial literacy", *International Journal of Bank Marketing*, Vol. 36 No. 7, pp. 1285-1310.

Bandura, A. (1989), “Social cognitive theory”, in Vasta, R. (Ed.), *Annals of Child Development*, JAI Press, Greenwich, pp. 1-60.

Bandura, A. (1994), “Self-efficacy”, in Ramachaudran, V.S. (Ed.), *Encyclopedia of Human Behavior*, Academic Press, New York, Vol. 4, pp. 71-81, (Reprinted in H. Friedman (Ed.) (1998). Encyclopedia of Mental Health. San Diego: Academic Press).

Bandura, A. (2001), “Social cognitive theory: an agentic perspective”, *Annual Review of Psychology*, Vol. 52 No. 1, pp. 1-26.

Bapat, D. (2020), “Antecedents to responsible financial management behavior among young adults: moderating role of financial risk tolerance”, *International Journal of Bank Marketing*, Vol. 38 No. 5, pp. 1177-1194.

Barbić, D., Lučić, A. and Chen, J.M. (2019), “Measuring responsible financial consumption behaviour”, *International Journal of Consumer Studies*, Vol. 43 No. 1, pp. 102-112.

Benitez, J., Henseler, J., Castillo, A. and Schuberth, F. (2020), “How to perform and report an impactful analysis using partial least squares: guidelines for confirmatory and explanatory is research”, *Information and Management*, Vol. 57 No. 2, 103168.

Beutler, I.F. and Dickson, L. (2008), “Consumer economic socialization”, in Xiao, J.J. (Ed.), *Handbook of Consumer Finance Research*, Springer, New York, pp. 83-102.

Bhushan, P. and Medury, Y. (2014), “An empirical analysis of inter linkages between financial attitudes, financial behavior and financial knowledge of salaried individuals”, *Indian Journal of Commerce and Management Studies*, Vol. 5 No. 3, p. 58.

Biernacki, P. and Waldorf, D. (1981), “Snowball sampling: problems and techniques of chain referral sampling”, *Sociological Methods and Research*, Vol. 10 No. 2, pp. 141-163.

Brounen, D., Koedijk, K.G. and Pownall, R.A.J. (2016), “Household financial planning and savings behavior”, *Journal of International Money and Finance*, Vol. 69, pp. 95-107.

Carlsson Hauff, J. and Nilsson, J. (2017), “The impact of country-of-origin cues on consumer investment behavior: the moderating influence of financial brand strength and investment management style”, *European Journal of Marketing*, Vol. 51 No. 2, pp. 349-366.

Census of India (2011), “Population enumeration data”, available at: https://censusindia.gov.in/2011-common/censusdata2011.html (accessed 3 August 2022).

Chandra, A., Sanningammanavara, K. and Nandini, A.S. (2017), “Does individual heterogeneity shape retail investor behaviour?”, *International Journal of Social Economics*, Vol. 44 No. 5, pp. 578-593.

Chatterjee, S., Finke, M. and Harness, N. (2011), “The impact of self-efficacy on wealth accumulation and portfolio choice”, *Applied Economics Letters*, Vol. 18 No. 7, pp. 627-631.

Chen, H., De, P., Hu, Y.J. and Hwang, B.H. (2014), “Wisdom of crowds: the value of stock opinions transmitted through social media”, *The Review of Financial Studies*, Vol. 27 No. 5, pp. 1367-1403.

Copur, Z. and Gutter, M.S. (2019), “Economic, sociological, and psychological factors of the saving behavior: turkey case”, *Journal of Family and Economic Issues*, Vol. 40 No. 2, pp. 305-322.

Davies, E. and Lea, S.E. (1995), “Student attitudes to student debt”, *Journal Of Economic Psychology*, Vol. 16 No. 4, pp. 663-679.

Deutskens, E., De Ruyter, K., Wetzels, M. and Oosterveld, P. (2004), “Response rate and response quality of internet-based surveys: an experimental study”, *Marketing Letters*, Vol. 15 No. 1, pp. 21-36.

Dew, J. and Xiao, J.J. (2011), “The financial management behavior scale: development and validation”, *Journal of Financial Counseling and Planning*, Vol. 22 No. 1, p. 17.

Drever, A.I., Odders-White, E., Kalish, C.W., Else-Quest, N.M., Hoagland, E.M. and Nelms, E.N. (2015), “Foundations of financial well-being: insights into the role of executive function, financial socialization, and experience-based learning in childhood and youth”, *Journal of Consumer Affairs*, Vol. 49 No. 1, pp. 13-38.

Duflo, E. and Saez, E. (2003), "The role of information and social interactions in retirement plan decisions: evidence from a randomized experiment", *The Quarterly Journal of Economics*, Vol. 118 No. 3, pp. 815-842.

Eagly, A.H. and Chaiken, S. (1993), *The Psychology of Attitudes*, Harcourt Brace Jovanovich College, California.

Etikan, I., Musa, S.A. and Alkassim, R.S. (2016), "Comparison of convenience sampling and purposive sampling", *American Journal of Theoretical and Applied Statistics*, Vol. 5 No. 1, pp. 1-4.

Fernandes, D., Lynch, J.G. and Netemeyer, R.G. (2014), "Financial literacy, financial education, and downstream financial behaviors", *Management Science*, Vol. 60 No. 8, pp. 1861-1883.

Fornell, C. and Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 18 No. 1, pp. 39-50.

França, L.H.F. and Hershey, D.A. (2018), "Financial preparation for retirement in Brazil: a cross-cultural test of the interdisciplinary financial planning model", *Journal of CrossCultural Gerontology*, Vol. 33, pp. 43-64.

Fünfgeld, B. and Wang, M. (2009), "Attitudes and behavior in everyday finance: evidence from Switzerland", *International Journal of Bank Marketing*, Vol. 27 No. 2, pp. 108-128.

Gamst-Klaussen, T., Steel, P. and Svartdal, F. (2019), "Procrastination and personal finances: exploring the roles of planning and financial self-efficacy", *Frontiers in Psychology*, Vol. 10, p. 775.

Glenn, C.E. (2018), *The Influence of Financial Socialization on Young Adults*, Ph.D. Doctor of Philosphy, Kansas State University, Manhattan, KA.

Goyal, K. and Kumar, S. (2021), "Financial literacy: a systematic review and bibliometric analysis", *International Journal of Consumer Studies*, Vol. 45 No. 1, pp. 80-105.

Goyal, K., Kumar, S. and Xiao, J.J. (2021), "Antecedents and consequences of Personal Financial Management Behavior: a systematic literature review and future research agenda", *International Journal of Bank Marketing*, Vol. 39 No. 7, pp. 1166-1207.

Goyal, K., Kumar, S., Xiao, J.J. and Colombage, S. (2022), "The psychological antecedents of personal financial management behavior: a meta-analysis", *International Journal of Bank Marketing*, Vol. 40 No. 7, pp. 1413-1451.

Grable, J.E. (2000), "Financial risk tolerance and additional factors that affect risk taking in everyday money matters", *Journal of Business and Psychology*, Vol. 14 No. 4, pp. 625-630.

Grable, J.E. and Joo, S.H. (2004), "Environmental and biophysical factors associated with financial risk tolerance", *Journal of Financial Counseling and Planning*, Vol. 15 No. 1, pp. 73-82.

Grable, J.E., Park, J.-Y. and Joo, S.-H. (2009), "Explaining financial management behaviorfor Koreans living in the United States", *Journal of Consumer Affairs*, Vol. 43 No. 1, pp. 80-107.

Gudmunson, C.G. and Danes, S.M. (2011), "Family financial socialization: theory and critical review", *Journal of Family and Economic Issues*, Vol. 32 No. 4, pp. 644-667.

Hair, J. Jr., Black, W., Babin, B. and Anderson, R. (2010), *Multivariate Data Analysis – A Global Perspective*, 7th ed., Pearson Prentice Hall, Upper Saddle River, NJ.

Hair, J.F., Ringle, C.M. and Sarstedt, M. (2011), "PLS-SEM: indeed, a silver bullet", *Journal of Marketing Theory and Practice*, Vol. 19 No. 2, pp. 139-152.

Hair, J.F., Sarstedt, M., Hopkins, L. and Kuppelwieser, V.G. (2014), "Partial least squares structural equation modeling (PLS-SEM)", *European Business Review*, Vol. 26 No. 2, pp. 106-121.

Hair, J.F., Risher, J.J., Sarstedt, M. and Ringle, C.M. (2019), "When to use and how to report the results of PLS-SEM", *European Business Review*, Vol. 31 No. 1, pp. 2-24.

Harman, H.H. and Harman, H.H. (1976), *Modern Factor Analysis*, University of Chicago Press, Chicago.

Heimer, R.Z. (2016), "Peer pressure: social interaction and the disposition effect", *The Review of Financial Studies*, Vol. 29 No. 11, pp. 3177-3209.

Henseler, J., Dijkstra, T.K., Sarstedt, M., Ringle, C.M., Diamantopoulos, A., Straub, D.W., Ketchen, D.J. Jr., Hair, J.F., Hult, G.T.M. and Calantone, R.J. (2014), "Common beliefs and reality about PLS: comments on Rönkkö and Evermann (2013)", *Organizational Research Methods*, Vol. 17 No. 2, pp. 182-209.

Henseler, J., Ringle, C.M. and Sarstedt, M. (2015), "A new criterion for assessing discriminant validity in variance-based structural equation modeling", *Journal of the Academy of Marketing Science*, Vol. 43 No. 1, pp. 115-135.

Herawati, N.T., Candiasa, I.M., Yadnyana, I.K. and Suharsono, N. (2018), "Factors that influence financial behavior among accounting students in Bali", *International Journal of Business Administration*, Vol. 9 No. 3, pp. 30-38.

Hilgert, M.A., Hogarth, J.M. and Beverly, S.G. (2003), "Household financial management: the connection between knowledge and behavior", *Federal Reserve Bulletin*, Vol. 89, pp. 309-322.

Hira, T.K., Sabri, M.F. and Loibl, C. (2013), "Financial socialization's impact on investment orientation and household net worth", *International Journal of Consumer Studies*, Vol. 37 No. 1, pp. 29-35.

Hoffmann, A.O.I. and Plotkina, D. (2020), "Why and when does financial information affect retirement planning intentions and which consumers are more likely to act on them?", *Journal of Business Research*, Vol. 117, pp. 411-431.

Hoffmann, A.O.I. and Plotkina, D. (2021a), "Positive framing when assessing the personal resources to manage one's finances increases consumers' retirement self-efficacy and improves retirement goal clarity", *Psychology and Marketing*, Vol. 38 No. 12, pp. 2286-2304.

Hoffmann, A.O.I. and Plotkina, D. (2021b), "Let your past define your future? How recalling successful financial experiences can increase beliefs of self-efficacy in financial planning", *Journal of Consumer Affairs*, Vol. 55 No. 3, pp. 847-871.

Hoffmann, A.O.I., McNair, S. and Pallant, J. (2021), "The financial vulnerability trap: using latent transition analysis to explore the dynamics of consumers' financial vulnerability over time", *European Journal of Marketing*, Vol. 55 No. 6, pp. 1569-1593.

Hofstede, G. (1980), "Culture and organizations", *International Studies of Management and Organization*, Vol. 10 No. 4, pp. 15-41.

Hussain, M., Al-Aomar, R. and Melhem, H. (2019), "Assessment of lean-green practices on the sustainable performance of hotel supply chains", *International Journal of Contemporary Hospitality Management*, Vol. 31 No. 6, pp. 2448-2467.

Huston, S.J. (2010), "Measuring financial literacy", *Journal of Consumer Affairs*, Vol. 44 No. 2, pp. 296-316.

Jappelli, T. and Padula, M. (2013), "Investment in financial literacy and saving decisions", *Journal of Banking and Finance*, Vol. 37 No. 8, pp. 2779-2792.

Johnston, K.L. and White, K. (2003), "Binge-drinking: a test of the role of group norm in the theory of planned behavior", *Psychology and Health*, Vol. 18, pp. 63-77.

Jorgensen, B.L. and Savla, J. (2010), "Financial literacy of young adults: the importance of parental socialization", *Family Relations*, Vol. 59 No. 4, pp. 465-478.

Judge, T.A. and Bono, J.E. (2001), "Relationship of core self-evaluations traits—self-esteem, generalized self-efficacy, locus of control, and emotional stability—with job satisfaction and job performance: a meta-analysis", *Journal of Applied Psychology*, Vol. 86 No. 1, p. 80.

Kaiser, T., Lusardi, A., Menkhoff, L. and Urban, C. (2022), "Financial education affects financial knowledge and downstream behaviors", *Journal of Financial Economics*, Vol. 145 No. 2, pp. 255-272.

Kim, K.T., Anderson, S.G. and Seay, M.C. (2019), "Financial knowledge and short-term and long-term financial behaviors of millennials in the United States", *Journal of Family and Economic Issues*, Vol. 40 No. 2, pp. 194-208.

Kock, N. (2015), "Common method bias in PLS-SEM: a full collinearity assessment approach", *International Journal of E-Collaboration*, Vol. 11 No. 4, pp. 1-10.

Koh, N.K. and Lee, C.B. (2010), "Because my parents say so'- children's monetary decision making", *Procedia - Social and Behavioral Sciences*, Vol. 9 No. 4, pp. 48-52.

KPMG (2016), "Millennials in the workplace", available at: https://home.kpmg/content/dam/kpmg/be/pdf/boardroomquestions/boardroom-questions-millennials-in-the-work-place.pdf (accessed 20 May 2022).

Kumar, D. and Rahman, Z. (2016), "Buyer supplier relationship and supply chain sustainability: empirical study of Indian automobile industry", *Journal of Cleaner Production*, Vol. 131, pp. 836-848.

Lachance, M.J. and Legault, F. (2007), "College students' consumer competence: identifying the socialization sources", *Journal of Research for Consumers*, No. 13, p. 1.

Lay, C.H. and Burns, P. (1991), "Intentions and behavior in studying for an examination: the role of trait procrastination and its interaction with optimism", *Journal of Social Behavior and Personality*, Vol. 6 No. 3, p. 605.

Lee, J. and Cho, J. (2005), "Consumers' use of information intermediaries and the impact on their information search behavior in the financial market", *Journal of Consumer Affairs*, Vol. 39 No. 1, pp. 95-120.

Lee, D., Arumugam, D. and Arifin, N.B. (2019), "A study of factors influencing personal financial planning among young working adults in kuala lumpur, Malaysia", *International Journal of Recent Technology and Engineering*, Vol. 7 No. 5, p. 6.

Lin, H.F. and Lee, G.G. (2004), "Perceptions of senior managers toward knowledge-sharing behaviour", *Management Decision*, Vol. 42 No. 1, pp. 108-125.

Loibl, C. and Hira, T.K. (2006), "A workplace and gender-related perspective on financial planning information sources and knowledge outcomes", *Financial Services Review*, Vol. 15 No. 1, p. 21.

Lown, J.M. (2011), "Development and validation of a financial self-efficacy scale", *Journal of Financial Counseling and Planning*, Vol. 22 No. 2, pp. 54-63.

Lusardi, A. (2003), "Planning and saving for retirement", Working paper, Dartmouth College, Hanover, December.

Lusardi, A. and Mitchell, O.S. (2017), "How ordinary consumers make complex economic decisions: financial literacy and retirement readiness", *Quarterly Journal of Finance*, Vol. 7 No. 03, 1750008.

Lusardi, A. and Mitchelli, O.S. (2007), "Financial literacy and retirement preparedness: evidence and implications for financial education", *Business Economics*, Vol. 42 No. 1, pp. 35-44.

Lusardi, A., Hasler, A. and Yakoboski, P.J. (2021), "Building up financial literacy and financial resilience", *Mind and Society*, Vol. 20 No. 2, pp. 181-187.

Lyons, A.C., Scherpf, E. and Roberts, H. (2006), "Financial education and communication between parents and children", *The Journal of Consumer Education*, Vol. 23 No. 2006, pp. 64-76.

Martin, K.D. and Hill, R.P. (2015), "Saving and well-being at the base of the pyramid: implications for transformative financial services delivery", *Journal of Service Research*, Vol. 18 No. 3, pp. 405-421.

Martin, K.D. and Paul Hill, R. (2012), "Life satisfaction, self-determination, and consumption adequacy at the bottom of the pyramid", *Journal of Consumer Research*, Vol. 38 No. 6, pp. 1155-1168.

McLeod, J.M. and O'Keefe, G.J. (1972), "The socialization perspective and communication behavior", *Current Perspectives in Mass Communication Research*, Vol. 121, p. 168.

McNair, S., Summers, B., de Bruin, W.B. and Ranyard, R. (2016), "Individual-level factors predicting consumer financial behavior at a time of high pressure", *Personality and Individual Differences*, Vol. 99, pp. 211-216.

Ministry of Labour and Employment Labour Bureau (2016), "Quarterly report on employment scenario", available at: http://labounew.gov.in/UserContent/QES_Report_Jan_2017.pdf?pr_id=isPYUxqHP1M%3D (accessed 3 August 2022).

Montano, D.E. and Kasprzyk, D. (2015), "Theory of reasoned action, theory of planned behavior, and the integrated behavioral model", *Health Behavior: Theory, Research and Practice*, Vol. 70 No. 4, p. 231.

Moschis, G.P. (1987), *Consumer Socialization: A Life-Cycle Perspective*, Free Press, New York, NY.

Moschis, G.P. and Churchill, G.A. Jr. (1978), "Consumer socialization: a theoretical and empirical analysis", *Journal of Marketing Research*, Vol. 15 No. 4, pp. 599-609.

Mugenda, O.M., Hira, T.K. and Fanslow, A.M. (1990), "Assessing the causal relationship among communication, money management practices, satisfaction with financial status, and satisfaction with quality of life", *Lifestyles*, Vol. 11 No. 4, pp. 343-360.

Murphy, J.L. (2013), "Psychosocial factors and financial literacy", *Social Security Bulletin*, Vol. 73, p. 73.

Nga, J.K., Yong, L.H. and Sellappan, R. (2011), "The influence of image consciousness, materialism and compulsive spending on credit card usage intentions among youth", *Young Consumers*, Vol. 12 No. 3, pp. 243-253.

Nguyen, H.T. (2019), "Development and validation of a women's financial self-efficacy scale", *Journal of Financial Counseling and Planning*, Vol. 30 No. 1, pp. 142-154.

Nitzl, C., Roldan, J.L. and Cepeda, G. (2016), "Mediation analysis in partial least squares path modeling", *Industrial Management and Data Systems*, Vol. 116 No. 9, pp. 1849-1864.

Norman, P. and Conner, M. (2006), "The theory of planned behavior and binge-drinking: assessing the moderating role of past behavior within the theory of planned behavior", *British Journal of Health Psychology*, Vol. 11 No. 12, pp. 55-70.

Norvilitis, J.M. (2014), "Changes over time in college student credit card attitudes and debt: evidence from one campus", *Journal of Consumer Affairs*, Vol. 48 No. 3, pp. 634-647.

Norvilitis, J.M. and MacLean, M.G. (2010), "The role of parents in college students' financial behaviors and attitudes", *Journal of Economic Psychology*, Vol. 31 No. 1, pp. 55-63.

Norvilitis, J.M., Merwin, M.M., Osberg, T.M., Roehling, P.V., Young, P. and Kamas, M.M. (2006), "Personality factors, money attitudes, financial knowledge, and credit-card debt in college students", *Journal of Applied Social Psychology*, Vol. 36 No. 6, pp. 1395-1413.

Nunnally, J.C. (1978), *Psychometric Theory*, 2nd ed., McGraw-Hill, New York.

Nye, P. and Hillyard, C. (2013), "Personal financial behavior: the influence of quantitative literacy and material values", *Numeracy*, Vol. 6 No. 1, pp. 1-24.

Ostrovsky-Berman, E. and Litwin, H. (2019), "Social network and financial risk tolerance among investors nearing and during retirement", *Journal of Family and Economic Issues*, Vol. 40 No. 2, pp. 237-249.

Ozmete, E. and Hira, T. (2011), "Conceptual analysis of behavioral theories/models: application to financial behavior", *European Journal of Social Sciences*, Vol. 18 No. 3, pp. 386-404.

Pavlov, G., Maydeu-Olivares, A. and Shi, D. (2021), "Using the standardized root mean squared residual (SRMR) to assess exact fit in structural equation models", *Educational and Psychological Measurement*, Vol. 81 No. 1, pp. 110-130.

Perry, V.G. and Morris, M.D. (2005), "Who is in control? The role of self-perception, knowledge, and income in explaining consumer financial behavior", *Journal of Consumer Affairs*, Vol. 39 No. 2, pp. 299-313.

Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y. and Podsakoff, N.P. (2003), "Common method biases in behavioral research: a critical review of the literature and recommended remedies", *Journal of Applied Psychology*, Vol. 88 No. 5, p. 879.

Pop, R.A., Săplăcan, Z., Dabija, D.C. and Alt, M.A. (2022), "The impact of social media influencers on travel decisions: the role of trust in consumer decision journey", *Current Issues in Tourism*, Vol. 25 No. 5, pp. 823-843.

Preacher, K.J. and Hayes, A.F. (2008), "Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models", *Behavior Research Methods*, Vol. 40 No. 3, pp. 879-891.

RBI (2017), "*Report of the household finance committee*", *Indian Household Finance*, available at: rbidocs.rbi.org.in (accessed 04 August 2022).

Rea, J.K., Danes, S.M., Serido, J., Borden, L.M. and Shim, S. (2019), "Being able to support yourself ":young adults' meaning of financial well-being through family financial socialization", *Journal of Family and Economic Issues*, Vol. 40 No. 2, pp. 250-268.

Rimer, B.K. and Glanz, K. (2005), *Theory At a Glance: A Guide for Health Promotion Practice*, US Department of Health and Human Services, National Institutes of Health, National Cancer Institute.

Ross, A. and Willson, V.L. (2017), "Paired samples T-test", in Ross, A. and Willson, V.L. (Eds), *Basic and Advanced Statistical Tests*, Sense Publishers, pp. 17-19.

Rotter, J.B. (1966), "Generalized expectancies for internal versus external control of reinforcement", *Psychological Monographs: General and Applied*, Vol. 80 No. 1, pp. 1-28.

Rozental, A. and Carlbring, P. (2013), "Internet-based cognitive behavior therapy for procrastination: study protocol for a randomized controlled trial", *JMIR Research Protocols*, Vol. 2 No. 2, p. e2801.

Sarstedt, M., Ringle, C.M. and Hair, J.F. (2017), "Partial least squares structural equation modeling", in Homburg, C., Klarmann, M. and Vomberg, A. (Eds), *Handbook of Market Research*, Springer International Publishing, pp. 1-40.

Schomburgk, L. and Hoffmann, A.O.I. (2023), "How mindfulness reduces BNPL usage and how that relates to overall well-being", *European Journal of Marketing*, Vol. 56 No. 2, pp. 325-359.

Schuchardt, J., Durband, D., Bailey, W.C., DeVaney, S.A., Grable, J.E., Leech, I.E., Lown, J.M., Sharpe, D.L. and Xiao, J.J. (2007), "Personal finance: an interdisciplinary profession", *Journal of Financial Counseling and Planning*, Vol. 18 No. 1, p. 9.

Shim, S., Xiao, J.J., Barber, B.L. and Lyons, A.C. (2009), "Pathways to life success: a conceptual model of financial well-being for young adults", *Journal of Applied Developmental Psychology*, Vol. 30 No. 6, pp. 708-723.

Shanmugam, K., Chidambaram, V. and Parayitam, S. (2023), "Relationship Between Big-Five Personality Traits, Financial Literacy and Risk Propensity: Evidence from India", *IIM Kozhikode Society & Management Review*, Vol. 12 No. 1, pp. 85-101.

Shim, S., Barber, B.L., Card, N.A., Xiao, J.J. and Serido, J. (2010), "Financial socialization of first-year college students: the roles of parents, work, and education", *Journal of Youth and Adolescence*, Vol. 39 No. 12, pp. 1457-1470.

Shim, S., Serido, J. and Tang, C. (2012), "The ant and the grasshopper revisited: the present psychological benefits of saving and future oriented financial behaviors", *Journal of Economic Psychology*, Vol. 33 No. 1, pp. 155-165.

Singh, R. (2021), "'Hey Alexa – order groceries for me' – the effect of consumer–VAI emotional attachment on satisfaction and repurchase intention", *European Journal of Marketing*, Vol. 56 No. 6, pp. 1684-1720.

Singh, R. and Söderlund, M. (2020), "Extending the experience construct: an examination of online grocery shopping", *European Journal of Marketing*, Vol. 54 No. 10, pp. 2419-2446.

Singh, E.G., Kapoor, E.N. and Kang, S.S. (2019), "Measuring perception of Punjab's people in personal financial planning using psychometric scale", *International Journal of Scientific and Technology Research*, Vol. 8 No. 09, pp. 1926-1933.

Slovic, P. (1986), "Informing and educating the public about risk", *Risk Analysis*, Vol. 6 No. 4, pp. 403-415.

Sohn, S.H., Joo, S.H., Grable, J.E., Lee, S. and Kim, M. (2012), "Adolescents' financial literacy: the role of financial socialization agents, financial experiences, and money attitudes in shaping financial literacy among South Korean youth", *Journal of Adolescence*, Vol. 35 No. 4, pp. 969-980.

Steel, P. (2007), "The nature of procrastination: a meta-analytic and theoretical review of quintessential self-regulatory failure", *Psychological Bulletin*, Vol. 133 No. 1, pp. 65-94.

Steel, P. (2010), "Arousal, avoidant and decisional procrastinators: do they exist?", *Personality and Individual Differences*, Vol. 48 No. 8, pp. 926-934.

Stipek, D. (1980), "A causal analysis of the relationship between locus of control and academic achievement in first grade", *Contemporary Educational Psychology*, Vol. 5 No. 1, pp. 90-99.

Tang, T.L.P. (1995), "The development of a short money ethic scale: attitudes toward money and pay satisfaction revisited", *Personality and Individual Differences*, Vol. 19 No. 6, pp. 809-816.

Tang, N., Baker, A. and Peter, P.C. (2015), "Investigating the disconnect between financial knowledge and behavior: the role of parental influence and psychological characteristics in responsible financial behaviors among young adults", *Journal of Consumer Affairs*, Vol. 49 No. 2, pp. 376-406.

Tomar, S., Baker, H.K., Kumar, S. and Hoffmann, A.O.I. (2021), "Psychological determinants of retirement financial planning behavior", *Journal of Business Research*, Vol. 133, pp. 432-449.

Topa, G., Hernández-Solís, M. and Zappalà, S. (2018), "Financial management behavior among young adults: the role of need for cognitive closure in a three-wave moderated mediation model", *Frontiers in Psychology*, Vol. 9, p. 2419.

Worthy, S.L., Jonkman, J. and Blinn-Pike, L. (2010), "Sensation-seeking, risk-taking, and problematic financial behaviors of college students", *Journal of Family and Economic Issues*, Vol. 31 No. 2, pp. 161-170.

Wu, S., Despard, M.R. and Chowa, G. (2017), "The role of parents in introducing children to financial services: evidence from Ghana-YouthSave", *Journal of Family and Economic Issues*, Vol. 38 No. 3, pp. 453-462.

Xiao, J.J. and Porto, N. (2019), "Present bias and financial behavior", *Financial Planning Review*, Vol. 2 No. 2, p. e1048.

Xiao, J.J. and Tao, C. (2020), "Consumer finance/household finance: the definition and scope", *China Finance Review International*, Vol. 11 No. 1, pp. 1-25.

Xiao, J.J., Tang, C., Serido, J. and Shim, S. (2011), "Antecedents and consequences of risky credit behavior among college students: application and extension of the theory of planned behavior", *Journal of Public Policy and Marketing*, Vol. 30 No. 2, pp. 239-245.

Xu, L. and Zia, B. (2012), *Financial Literacy Around The World: An Overview of the Evidence With Practical Suggestions For the Way Forward*, Policy Research Working Paper, The World Bank, Washington, DC, p. 58.

Xu, Y., Beller, A.H., Roberts, B.W. and Brown, J.R. (2015), "Personality and young adult financial distress", *Journal of Economic Psychology*, Vol. 51, pp. 90-100.

Zimmerman, M.A. (1995), "Psychological empowerment: issues and illustrations", *American Journal of Community Psychology*, Vol. 23 No. 5, pp. 581-599.

Further reading

Asandimitra, N. and Kautsar, A. (2019), "The influence of financial information, financial self- efficacy, and emotional intelligence to financial management behavior of female lecturer", *Humanities and Social Sciences Reviews*, Vol. 7 No. 6, pp. 1112-1124.

Chen, H. and Volpe, R.P. (1998), "An analysis of personal financial literacy among college students", *Financial Services Review*, Vol. 7 No. 2, pp. 107-128.

Erickson, T. (2009), "Generational differences between India and the US", *Harvard Business Review*, Vol. 1.

Grable, J.E., Joo, S.H. and Park, J. (2015), "Exploring the antecedents of financial behavior for asians and non-hispanic whites: the role of financial capability and locus of control", *Journal of Personal Finance*, Vol. 14 No. 1, pp. 28-37.

Kidwell, B. and Turrisi, R. (2004), "An examination of college student money management tendencies", *Journal of Economic Psychology*, Vol. 25 No. 5, pp. 601-616.

Kidwell, B., Brinberg, D. and Turrisi, R. (2003), "Determinants of money management behavior", *Journal of Applied Social Psychology*, Vol. 33 No. 6, pp. 1244-1260.

Kim, H. and DeVaney, S. (2016), "Banking behavior among the millennials", *Consumer Interests Annual*, Vol. 62.

Mutlu, Ü. and Özer, G. (2021), "The moderator effect of financial literacy on the relationship between locus of control and financial behavior", *Kybernetes*, Vol. 51 No. 3, pp. 1114-1126.

Phares, E.J. (1976), *Locus of Control in Personality*, General Learning Press, Morristown, NJ.

Punj, G.N. and Staelin, R. (1983), "A model of consumer information search behavior for new automobiles", *Journal of Consumer Research*, Vol. 9 No. 4, pp. 366-380.

Rhine, S.L. and Toussaint-Comeau, M. (2002), "Adult preferences for the delivery of personal finance information", *Journal of Financial Counseling and Planning*, Vol. 13 No. 2, p. 11.

U.S. Department of Professional Employees (2021), "The professional and Technical workforce:By the numbers, 2021 factsheet, department of professional employees", available at: https://www.dpeaflcio.org/factsheets/the-professional-and-technical-workforce-by-the-numbers (accessed 15 August 2022).

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