

**PSYCHO-SOCIAL ANTECEDENTS OF FINANCIAL ATTITUDES,  
FINANCIAL BEHAVIOUR AND FINANCIAL WELLBEING:  
EVIDENCE FROM INDIA**

*A Thesis Submitted*

in Partial Fulfillment of the Requirements

for the Degree of

**Doctor of Philosophy**



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*to the*

**DEPARTMENT OF MANAGEMENT SCIENCES  
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**December, 2025**

## Certificate

It is certified that the work contained in the thesis titled “**Psycho-social antecedents of financial attitudes, financial behaviour and financial wellbeing: Evidence from India**” by “Amrita Kulshreshtha” has been carried out under my supervision and that this work has not been submitted elsewhere for a degree.



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## Declaration

This is to certify that the thesis titled “**Psycho-social antecedents of financial attitudes, financial behaviour and financial wellbeing: Evidence from India**” has been authored by me. It presents the research conducted by me under the supervision of **Dr. Devlina Chatterjee**. To the best of my knowledge, it is an original work, both in terms of research content and narrative, and has not been submitted elsewhere, in part or in full, for a degree. Further, due credit has been attributed to the relevant state-of-the-art and collaborations (if any) with appropriate citations and acknowledgements, in line with established norms and practices.

A handwritten signature in blue ink that reads "Amrita". The signature is written in a cursive style and is underlined.

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## Synopsis

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Degree for which submitted	Doctor of Philosophy
Department	Management Sciences
Thesis Title	Psycho-social antecedents of financial attitudes, financial behaviour and financial wellbeing: Evidence from India
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Month and year of thesis submission:	December, 2025

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Traditional economic theories of utility maximization assume that human beings are rational in their behaviour and their decisions are based on a careful evaluation of alternatives and choices that would maximize their overall utility. However, recent research in behavioural economics has established that human behaviour does not always follow the principles of rationality and may suffer from several heuristics and biases. Every day, financial behaviour related to spending, saving, borrowing, and investing is influenced by both intrinsic and extrinsic factors of an individual. Intrinsic factors include the values, beliefs, attitudes, personality traits, and other psychological variables that shape an individual's decisions and choices, whether at a conscious or subconscious level (Maison, 2019). Extrinsic factors include actions taken by financial intermediaries or government policies that influence the actions of individuals.

Recent research has considered the impact of extrinsic factors affecting financial behaviour and financial wellbeing (Chu et al., 2017; Clark et al., 2025; Kaiser et al., 2022; Van Rooji et al., 2012; Klapper and Lusardi, 2020; Zhang and Fan, 2024; Kamble et al., 2024; Kanungo & Gupta, 2021; Du et al., 2023; Abokyi & Bettin, 2025). Policies have concentrated on using external interventions such as increasing financial literacy and

improving financial inclusion to improve financial decision-making. However, this kind of approach does not treat the individual as someone who has agency, is shaped by their environment and who might exhibit behavioural biases in making financial decisions. Several studies have found that psychological factors, such as money attitudes, risk attitudes, financial resilience, and psychological resilience, have a strong impact on the financial wellbeing of individuals (Castro-González et al., 2020; Sabri et al., 2020; Tahir et al., 2023; Barrett et al., 2021). These intrinsic factors, in turn, are shaped by the socialization processes through which parents, peers, teachers, colleagues, and life partners influence the attitudes and behaviors of young adults.

While there are several studies that have looked at parental financial socialization in terms of the outcome of explicit socialization, there are few studies that explore the connection between parents' attitudes and the attitudes of their children and how such intergenerational transmission of attitudes shapes the financial well-being of children. To bridge this gap in the extant literature, we aim to examine the impact of psychological and social factors on financial behaviours and financial well-being of young adults in India. The **first chapter** gives a brief introduction to the thesis. The next four chapters report a systematic literature review and three empirical studies. Finally, the 6<sup>th</sup> chapter concludes the thesis.

The **second chapter** consists of the systematic literature review of research articles published between 2000- April 2025 on the topic financial socialization. The literature review has considered the following keywords: “financial socialization”, “financial socialization and financial well-being”. The papers reviewed under a systematic literature review have looked at financial socialization and its related outcomes, such as financial behaviors and financial well-being. Bibliometric analysis revealed the research trends, top authors, highly cited research articles, frequently used keywords. Next, we use the

TCCM methodology to understand the theories, context, characteristics and methods used in the literature. Thematic analysis of the characteristics of studies through the lens of stimulus-organism-response (S-O-R) theory shed light on three prominent themes in the literature namely socializing agents (stimulus), individuals getting socialized (organism) and outcomes of socialization (response). We identify and report the research gaps that motivate the rest of the thesis.

The **third chapter** focuses on intergenerational transfer of money attitudes, its association with risk avoidance attitude and its impact on the investment preferences of young adults. Four money attitudes, viz. power-prestige, distrust, anxiety and retention-time were measured using the money attitude scale (MAS) developed by Yamauchi & Templer (1982). Self-reported attitudes of risk avoidance and the preference for risk free investment were measured using scales developed by the authors. Using data from among 251 parent-child dyads, we fitted structural equation models. Parental money attitudes do influence children's money attitudes which further impact their risk avoidance attitudes.

The **fourth chapter** looked at the intergenerational transfer of the money attitudes and its association with financial well-being of the young adults. Subjective financial wellbeing of parent and their child was measured using InCharge Financial Distress/Financial Well-Being (IFDFW) Scale (Prawitz et al., 2006). As in the first study, we use primary data from parent-child dyads to ensure causal interpretations. Estimated coefficients for the fitted model indicate that parental money attitudes of power-prestige and distrust have an indirect impact and anxiety has a direct negative impact on the financial wellbeing of young adults, and these are mediated by the child's corresponding money attitudes.

The **fifth chapter** focuses on understanding the influence of financial resilience, psychological resilience (Smith et al., 2008) during a Covid induced income shock on the

financial well-being of the 370 young adults. We use Salignac's framework which identifies four dimensions viz. economic resources, financial knowledge, social capital and financial inclusion as important aspects of financial resilience (Salignac et al., 2019). We find that economic resources and psychological resilience were the two important factors that impacted the individual's financial wellbeing.

The **sixth chapter** concludes the dissertation. The primary contribution of this thesis lies in the insight that it is not just the external factors that matter for financial wellbeing. Psychological factors such attitudes towards money that are shaped during our childhood affect risk avoidance behaviours, investment preferences and financial wellbeing even after attaining adulthood. Psychological resilience allows individuals to face certain external shocks and still maintain their financial wellbeing. *The overall key insight that emerged from the three studies is that the money and risk attitudes of parents play a large role in the corresponding attitudes of young adults, which further impacts their investment preferences and their financial well-being. We also found that when faced with a financial shock, financial resilience as well as psychological resilience are important for the continued financial well-being of individuals.* For policymakers, the practical implication of the first and second study is that it is important to include parents in programs targeted towards improving financial self-efficacy and resilience. The third study suggests government should introduce ample financial safety net for individuals and promote positive public messaging to bolster economic and psychological resilience of individuals to navigate through unprecedented economic shocks.

*Dedicated to my family and teachers*

## **Acknowledgement**

*“Start by doing what’s necessary; then do what’s possible; and suddenly you are doing the impossible.” – St. Francis of Assisi*

Firstly, I would like to sincerely acknowledge the expert guidance, assistance and support of my thesis supervisor, Prof Devlina Chatterjee, throughout my doctoral journey. Her extensive experience in industry, research and academia combined with weekly interactive sessions regarding research methods, academic writing, critical thinking, related inputs and comments has helped me immensely in structuring the thesis.

I would also like to express my gratitude towards my comprehensive exam evaluation committee members Prof Amit Shukla, Prof Anindita Chakrabarti, Prof Shankar Prawesh for providing much needed inputs in the initial stage of my PhD journey. Further, inputs from my doctoral monitoring committee members comprising of Prof V Girdhar, Prof Shankar Prawesh, Prof Harshal Mulay, have been also valuable.

I also extend my gratitude to all the individuals who participated in the surveys conducted during the research work. I also thank the fellow researchers who assisted me in data collection.

Lastly, I thank my family members, fellow researchers and counselling service at IIT Kanpur for motivation and support during the PhD journey.

**Amrita Kulshreshtha**

**December 2025**

## List of Publications based on the Thesis

1. Kulshreshtha, A., Raju, S., Muktineni, S. M., & Chatterjee, D. (2023). Income shock and financial well-being in the COVID-19 pandemic: financial resilience and psychological resilience as mediators. *International Journal of Bank Marketing*, 41(5), 1037-1058.
2. Kulshreshtha, A., Chatterjee, D. (2025). Like parent, like child? Intergenerational transfer of money attitudes, risk avoidance and investment preferences. *4th International Marketing Conference(iMarC), IIM Shillong*.

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## List of Abbreviations

GDP	Gross Domestic Product
S-O-R	Stimulus-Organism-Response Theory
MAS	Money Attitude Scale
IFDFW	InCharge Financial Distress/Financial Wellbeing
PFMB	Personal Financial Management Behavior
PFSS	Parent Financial Socialization Scale
TC	Total Citations
OLS	Ordinary Least Squares
APIM	Actor-Partner Interdependence Model
SEM	Structural Equation Modeling
FWB	Financial Wellbeing
MMS	Money Motivation Scale
KMSI	Klontz Money Script Inventory
MES	Money Ethic Scale
MBBS	Money Beliefs and Behavior Scale
P2P	Peer-to-Peer
PSID	Panel Study of Income Dynamics
NLSCYA	1979 National Longitudinal Survey Children and Young Adults
NLSY79	1979 National Longitudinal Survey (NLSY79)
VIF	Variance Inflation Factor
CVPAT	Cross Validated Predictive Ability Test
FFST	Family Financial Socialization Theory
CFA	Confirmatory Factor Analysis
AVE	Average Variance Extracted
HTMT	Heterotrait-Monotrait Ratio
SRMR	Standardized Root Mean Square Residual
LM	Linear model
IA	Indicative Averages
CB-SEM	Covariance Based Structural Equation Modeling
PLS-SEM	Partial Least Squares Structural Equation Modeling

# Chapter 1: Introduction

In the twenty first century, countries across the world have witnessed several large-scale economic, health, and political shocks such as the global recession of 2008, COVID-19 pandemic and the Russia-Ukraine and Israel-Palestine wars. These disruptions have had a severe detrimental impact on the most vulnerable sections of society. A simultaneous increase in unemployment along with rising costs of living have led to widespread financial distress, especially in emerging markets. In a developing country like India, the gross domestic savings rate as a percentage of GDP declined from 34.3 % in 2010 to 28.4% in 2024.<sup>1</sup> Such uncertainties have resulted in an increase in financial worry and stress, and decrease in financial wellbeing and financial resilience among individuals. Against the backdrop of such global financial uncertainties, it is important to understand the way families may shape the attitudes of the youth which will in turn impact their financial behavior and financial wellbeing in the future. This is the primary motivation underlying the studies in this thesis.

Financial wellbeing of an individual has been defined as a “set of conditions that enable people to fulfil present and recurrent financial obligations, make consumption decisions without getting stressed financially, prepare for facing economic contingencies, and pursue future financial goals” (García-Mata & Zerón-Félix, 2022). This definition and others proposed by CFPB (2017) and Salignac et al. (2020) have several features in common which are as follows:

a) FWB is related to the fulfilment of needs as well as desires or wants of an individual

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<sup>1</sup> Source: <https://data.worldbank.org/indicator/NY.GDS.TOTL.ZS?locations=IN>

b) FWB is related to current consumption as well as the ability to save for future consumption

c) FWB is associated with financial freedom that allows individuals to exert life choices

The financial behavior and wellbeing of an individual may be affected by both extrinsic and intrinsic factors. Extrinsic factors are related to the individual's external environment. These factors provide extrinsic motivation to engage in an activity (Zhang et al., 2025). In the domain of consumer finance, extrinsic factors include access to financial institutions, access to financial literacy, and governmental and legal frameworks that protect individual property and freedom. These factors are outside the control of individuals, and hence they are extrinsic in nature. While the government can facilitate financial inclusion, financial literacy and the creation of a strong regulatory framework, such external interventions have limited efficacy in shaping individual decisions and wellbeing.

Intrinsic factors are traits and characteristics of an individual such as their values, beliefs, attitudes, psychological disposition and personality traits (Schiffman and Wisenblit, 2019). Intrinsic factors are related to the internal psychological attributes of an individual and are further classified into cognitive, affective and behavioral factors. Cognitive attributes are related to the ability to think rationally and are measured by financial literacy and knowledge. Affective factors are related to the emotional state of an individual that may be shaped by social and cultural norms. Emotions, feelings, moods are considered as affective factors. Previous literature has studied attitudes, motivation (Henter et. al, 2014), self-concept (Arnold, 2020), self-efficacy (Ozel, 2013) as affective factors. Personality traits support emotional development (Arnold, 2020) and resilience helps regulate emotions (Troy et. al, 2022). Behavioral factors include financial behavior

such as spending, saving, budgeting, investing and giving to charity. Intrinsic factors evolve with the life stages of an individual and are important drivers of financial outcomes. Intrinsic factors are more difficult to modify using external regulations. These intrinsic factors are mostly shaped by socialization processes. Intrinsic factors are those factors that are related to the individual's mind and provide intrinsic motivation to engage in an activity (Zhang et al., 2025).

Most of the scholarly works in the context of personal financial behavior have emphasized the relevance of cognitive factors such as financial literacy and financial education (Chu et al., 2017; Clark et al., 2025; Kaiser et al., 2022; Van Rooji et al., 2012; Klapper and Lusardi, 2020; Zhang and Fan, 2024). Some authors have looked at the impact of affective factors on financial wellbeing (Castro-González et al., 2020; Sabri et al., 2020). However, there are no studies that look at how parental money attitudes impact the money attitudes of their children, which subsequently impacts their financial wellbeing. This research gap motivates the key themes explored in this thesis. In particular, we examine social and psychological antecedents of affective intrinsic factors such as money attitudes, risk attitudes, and psychological resilience, as well as their consequences on financial outcomes such as financial behavior and financial wellbeing.

In this thesis, we study the role of intrinsic factors on financial behavior and financial wellbeing in two different kinds of situations – (i) under normal circumstances, and (ii) when faced with a shock. As outlined in the definition of financial well-being – it captures the ability of an individual to meet the obligations of their day-to-day life as well as their ability to meet financial contingencies. The COVID income shock was one such contingency and we study the role of financial resilience and psychological resilience in restoring financial wellbeing after this shock. It is important to consider two conditions as time of the pandemic was difficult and different from normal circumstances an

individual had faced. In Chapters 2, 3 and 4, we look at how financial socialization might impact money attitudes of young adults and how these may subsequently shape their financial behavior and financial wellbeing. In Chapter 5, we consider the role of intrinsic factors such as financial resilience and psychological resilience in the event of a sudden shock such as COVID. Thus, this thesis provides a comprehensive view of the role of intrinsic factors on personal financial behavior in the context of an emerging market that is India. We summarize the key findings of the 4 studies in the following paragraphs.

In Chapter 2 we conduct a systematic literature review of research studies published between 2000 and 2025 in the area of financial socialization. *Financial socialization is a mechanism which helps in transfer of attitudes, knowledge, skills through social interactions on financial topics.* We conducted a bibliometric analysis of 310 research articles that were selected after applying certain screening criteria. This in-depth analysis using TCCM framework provided insights into the theoretical background, contexts, characteristics and methodologies that provided a conceptual map of the domain. Further, the characteristics were analyzed using thematic analysis of the literature through the lens of stimulus-organism-response (S-O-R) theory that yielded three main themes, namely socializing agents (stimulus), individuals getting socialized (organism), and outcomes of financial socialization (response). The systematic review of the literature led to identifying the research gaps that motivated the empirical studies in Chapters 3 and 4.

The third chapter looks at the three thematic aspects that emerge from the systematic literature review in Chapter 2, viz. the socializing agents, socialized individuals, and outcomes of such socialization. Specifically, we are interested in the association between parental and adult children's money attitudes. The four money attitudes, viz., power-prestige, distrust, anxiety, and retention-time, were measured using the money attitude scale (MAS) developed by Yamauchi & Templer (1982). The risk avoidance attitude was

measured using a self-developed scale. Primary data is collected from 251 parent-child dyads and structural equation modelling is used to test the hypothesized model. Risk preferences of the parent and child were measured using a risk avoidance index, captured by calculating the difference between the ranking of the safe and risky investment options. We find that each dimension of parental money attitudes is associated with their child's corresponding money attitudes. They are also associated with the risk avoidance attitudes of young adults and influence their risk investment preferences.

The fourth chapter focuses on the intergenerational transfer of money attitudes and their association with the financial wellbeing of an adult child. The data used for this analysis was based on the same 251 parent-child dyad that were considered in Chapter 3. In addition to the money attitudes, we measure the subjective financial wellbeing of parent and their child using the InCharge Financial Distress/Financial Wellbeing (IFDFW) Scale (Prawitz et al., 2006). We find that parental money attitudes are positively associated with the children's corresponding money attitudes. However, only some dimensions of money attitudes, viz. power-prestige, distrust and anxiety have an indirect and statistically significant association with their child's financial wellbeing. The results and the implications are discussed further in the chapter.

The fifth chapter documents whether an income shock experienced during COVID-19 impacts post pandemic financial well-being of individuals. Financial resilience and psychological resilience are included as mediating variables that might mitigate the influence of income shock on an individual's financial well-being. Primary data was collected for 370 individuals, some of whom suffered an income shock during COVID-19. We used Salignac's multidimensional framework for financial resilience comprising of four dimensions namely economic resources, financial knowledge, social capital and financial inclusion. Psychological resilience was measured using brief resilience scale

developed by Smith et al. (2008). We find that “economic resources” was the only dimension of financial resilience that reduced the impact of the income shock on individual financial wellbeing. Psychological resilience played a smaller but significant role in financial wellbeing compared to economic factors.

Overall, the primary goal of this thesis was to explore the impact of intrinsic factors, specifically affective factors on the financial resilience and financial wellbeing of individuals in an emerging country such as India. We find that in a collectivistic cultural setting such as India, parental money attitudes do have a significant association with the money attitudes of their adult children which in turn influences their financial decisions and financial wellbeing. In times of distress such as when faced with an income shock, economic resources are the most important factor that might allow individuals to bounce back and regain a sense of financial wellbeing. This thesis provides novel and significant insights into the role of family socialization processes and cultural norms in individual financial decisions. These insights may be important for devising policies for a more financially stable and resilient population.

# **Chapter 2: Systematic Literature Review of Financial Socialization, Financial Behaviour, and Financial Wellbeing**

## **2.1 Introduction**

Financial well-being is a state of being wherein a person can fully meet current and ongoing financial obligations, can feel secure in their financial future, and is able to make choices that allow them to enjoy life (CFPB, 2017). Several definitions of financial wellbeing have been proposed in the literature. García-Mata and Zerón-Félix (2022) provide a comprehensive summary of the definitions of financial wellbeing and associated constructs such as financial wellness, financial satisfaction etc. Financial well-being can be measured objectively or subjectively. Collins and Urban (2019) measured objective FWB of individuals over their life span using a composite score comprising of income, wealth, investment in financial markets. Bruggen et al., (2017) defined financial well-being as the “perception of being able to sustain current and anticipated desired living standards and financial freedom”. Financial well-being is affected by one’s ability to manage monthly finances, capacity to absorb shock, meet financial goals and having the freedom to make choices that help them enjoy life. García-Mata and Zerón-Félix (2022) identified two different dimensions that contribute to the financial wellbeing of individuals – viz. the needs-want dimension and the temporal dimension. They define financial wellbeing as “the set of conditions that enable people to fulfill present and recurrent financial obligations, make consumption decisions without getting stressed financially, prepare for facing economic contingencies, and pursue future financial goals.” For this study, we adopt this definition of financial wellbeing.

Financial wellbeing, a key component of the overall wellbeing of an individual, is affected by both extrinsic and intrinsic factors. Extrinsic factors impact economic prosperity and affect the average financial wellbeing of an entire population. These include macroeconomic factors such as employment opportunities, economic growth, governmental policies; and socio-cultural factors such as financial inclusion, the presence of informal financial networks and the existence of an individualistic or collectivistic culture. In addition to extrinsic environmental factors, there are several intrinsic factors specific to each individual that may be key drivers of their subjective financial wellbeing. These include financial knowledge, money attitudes, prudence, self-control and financial self-efficacy. These intrinsic financial traits correspond to the cognitive, affective and behavioral aspects of personal financial management and are often shaped by implicit or explicit financial socialization (Vlaev & Elliott, 2014; Fan & Henager, 2022).

Socialization is defined as “the process whereby a person acquires the attitudes, values, ways of thinking, need dispositions, and other-attributes which will characterize him in the next stage of his development” (Inkeles, 1968, p. 76). It plays a key role in shaping the beliefs, values, attitudes and behaviors of individuals, and enables them to function as integral members of the society. Though the process of socialization primarily occurs during childhood, it may continue throughout life as the person encounters a new social setting at different life stages. One of the key goals of human socialization is: “provision of nurturance and protection; induction into the values and demands of society, including the internalization of moral norms; acquiring a concept of the self in broadening social experiences; increasing autonomy.” (Grusec and Lytton, 1988, page 2).

Money plays an important role in modern society as a medium of exchange, a measure of value, and a means of saving that smooths intertemporal consumption over the lifetime of an individual, and even across generations. In addition to its utilitarian uses, money

also carries psychological and moral meaning (Mitchell and Mickell, 1999). Money enhances social status and enables a person to attain freedom and autonomy. Learning how to earn, save and spend money forms an important part of a child's financial socialization (FS). Financial socialization is defined as "the process of acquiring and developing values, attitudes, standards, norms, knowledge, and behaviors that contribute to the financial viability and well-being of the individual" (Danes, 1994, p. 128). [Financial behaviour and financial well-being are the financial outcomes of financial socialization.](#)

In a world with high levels of financial interconnectivity, FS has broader societal implications. By encouraging savings that can be channeled into appropriate financial investments, FS mobilizes individual savings into the banking system that fuels industrial investments. It improves retirement outcomes and reduces overdependence on governmental support. It allows diversification of individual risk through participation in insurance schemes. Thus, financial socialization plays a key yet often overlooked role in individual and societal wellbeing.

Extant research has primarily focused on the impact of institutional interventions such as financial inclusion and financial literacy for increasing financial wellbeing. However, such external interventions have had limited efficacy compared to financial socialization that happens in a more organic manner (Johan et al., 2021). Several authors have conducted systematic literature reviews on financial literacy (Goyal and Kumar, 2021; Zaimovic et al., 2023), financial management behavior (Goyal et al., 2021; Yeo et al., 2024), financial resilience (Liu et al., 2025) and financial wellbeing (Nanda and Banerjee, 2021; Singh and Malik, 2022). [LeBaron and Kelley \(2021\) did a systematic literature review of financial socialization papers published between 2010-2019 in Journal of Family and Economic issues. Apart from LeBaron and Kelley \(2021\), there are no](#)

systematic literature reviews conducted in the area of financial socialization and its impact on financial wellbeing. This is the research gap that we address in this study.

The research objectives of the study are as follows: (i) to investigate previous literature on financial socialization and related financial outcomes (such as financial behavior and well-being), (ii) to identify research gaps, key challenges, practical implications and future scope of research. The aim of this research paper is threefold. First, we conduct a bibliometric analysis of the extant literature in the area of financial socialization. Next, we perform a TCCM analysis to understand the theories, contexts, characteristics and methods used by authors in this area. Finally, we conduct a thematic analysis mapping the extant literature in accordance with the Stimulus-Organism-Response (S-O-R) model. The rest of the paper is divided into four sections. Section 2 pertains to data and methodology. Section 3 depicts the results of bibliometric analysis, TCCM analysis (theoretical insights, characteristics and contextual insights through thematic analysis, methodological insights) and related research propositions (Aria & Cuccurullo, 2017; Paul et al, 2024). Section 4 entails the conclusion, future research scope, and study limitations.

## **2.2 Research Questions**

RQ1. What are the research trends (top cited research articles, top journals, top prolific authors, top keywords) in FS domain?

RQ2. What are the key theoretical, contextual, characteristics and methodologies that have been used in FS research?

RQ3. Characteristics of research has further been explored through thematic analysis using the Stimulus-Organism-Response theory

- a) Who or what are the primary socialization agents in case of financial socialization?
- b) What are the cognitive, affective and behavioral aspects of changes in the organism – that is the individual who is getting socialized?
- c) What are the outcomes of FS?

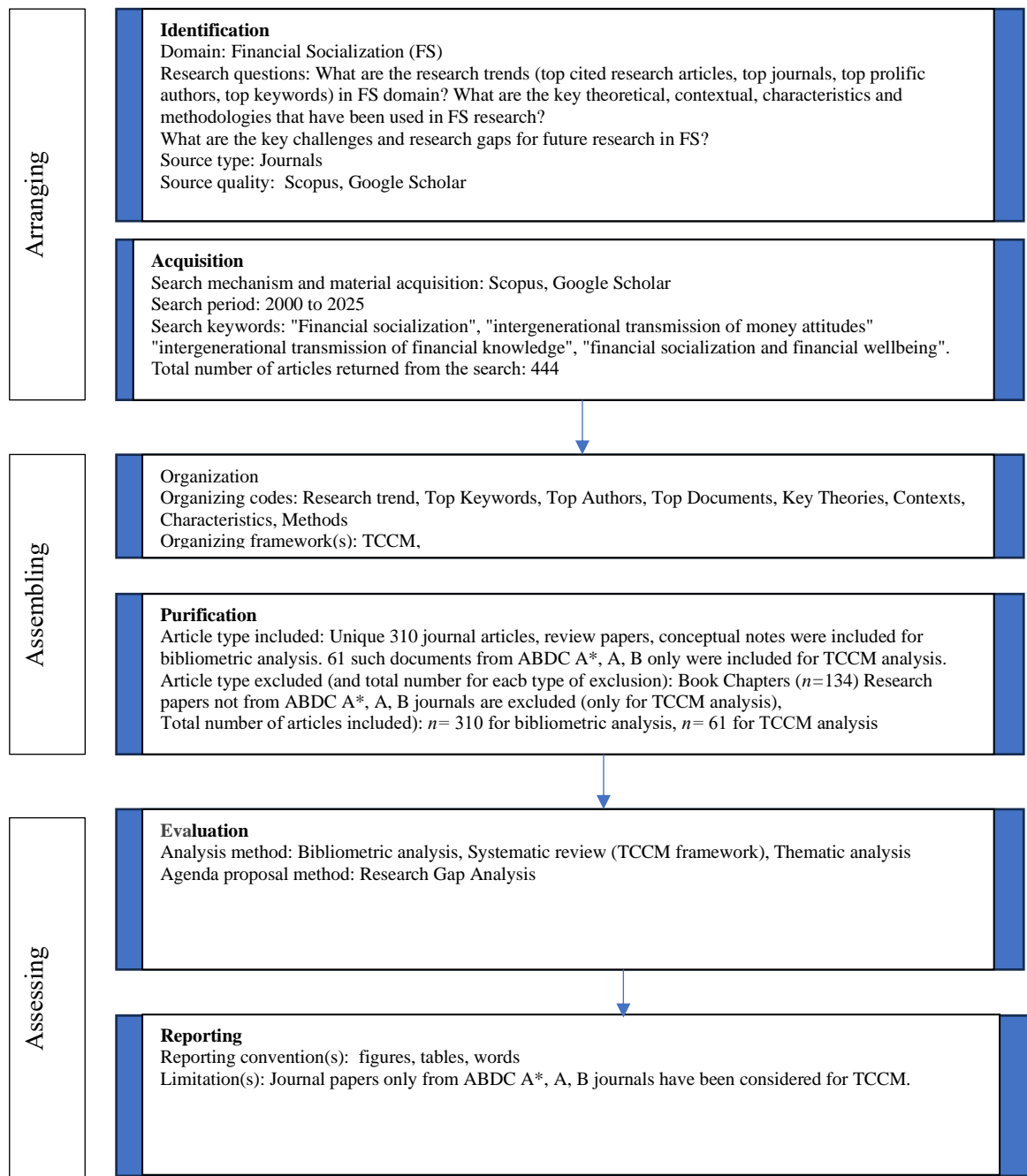
RQ4. What are the key challenges and research gaps for future research in FS?

RQ5 What are practical implications of the findings for policymaking in the field of personal finance and financial well-being?

## — 2.3 Data and methodology

We identified “financial socialization” as the topic for systematic literature review. We searched research articles from databases such as Scopus and Google Scholar for the analysis. In order to maintain relevance and include the most recent articles in this area, we included articles published between 2000 and July, 2025. The concept of family financial socialization was first proposed in the seminal paper by Gudmunson and Danes (2011). Since we are also considering the literature at intersection of financial socialization with financial wellbeing, we expanded the period for which we looked at papers in this domain and hence used 2000 as the starting point. SPAR-4-SLR (Paul et al, 2021) was followed for systematic review. For, bibliometric analysis, the bibliometric analysis procedure given by Donthu et al., (2021) was followed. The rationale for using SPAR-4-SLR procedure is that it is a widely used procedure in consumer behavior studies. The primary keywords used to search the database were "Financial socialization", "intergenerational transmission of money attitudes" "intergenerational transmission of financial knowledge" and finally "financial socialization and financial wellbeing". The

selection criteria for articles included in the bibliometric analysis was based on the document type. Out of 444 search results, only unique 310 journal articles, review papers, conceptual notes were selected. There are several different ways of conducting systematic literature reviews including the 5W+ H (Callahan, 2014); ADO (antecedents-decisions-outcomes; Paul & Benito, 2018) and the TCCM framework (Paul and Rosada-Cerrano, 2019). Both 5W+H and ADO look at the primary variables used in the models. TCCM is the most comprehensive way of conducting a systematic literature review since it also includes theories, context and methodologies. We used a more stringent selection criterion for TCCM analysis. Articles published in reputed journals (A\*, A, B rank in the current ABDC ranking) were included. Few highly cited and recently published articles were also included in the TCCM analysis. Articles with low citation count and articles which focused on narrow topics or specific area such as debt behaviour, credit card behaviour, compulsive buying, inter-partner violence were excluded.

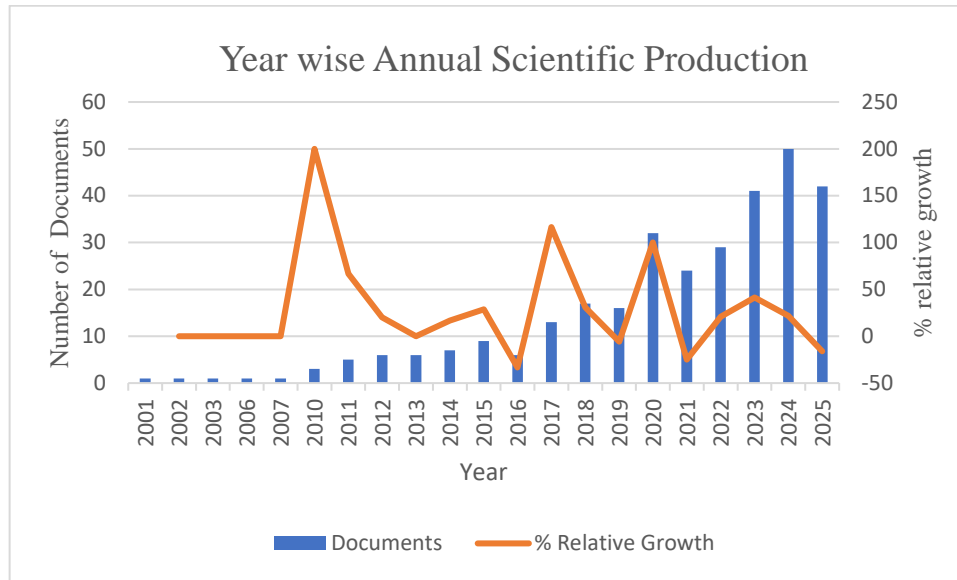


**Figure 2.1 Flowchart for SPAR-4-SLR procedure followed for Financial Socialization systematic literature review**

## 2.4 RQ1: Results of Bibliometric analysis

Our first research question focuses on understanding the relevant authors, journals, sources in the financial socialization and related intergenerational transmission field. The subsequent subsections on source dynamics, document analysis, word dynamics give insights into the relevant authors, journals, sources, keywords.

## 2.4.1 Descriptive Analysis



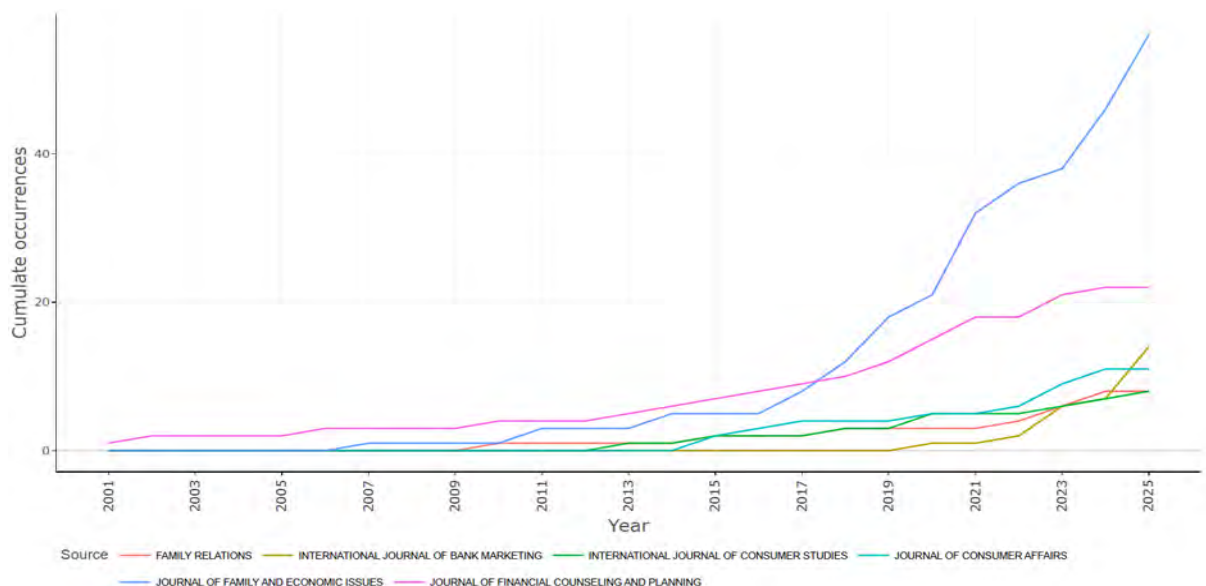
**Figure 2.2 Year wise Annual Scientific Production 2000 onwards**

The graph (see figure 2.2) depicts the annual scientific production of research studies in the financial socialization domain. The sharp increase in 2010 can be attributed to the 2008 financial crisis which might have led to rise in academic interest to understand drivers of FS and role of FS to improve financial behavior and well-being of individuals. The number of documents has been rising steadily since 2021, again reflecting the rising interest in this domain. This may be due to the sudden economic shock due to the COVID-19 which resulted in loss of financial wellbeing for many vulnerable populations across the world. In the area of financial socialization, the focus in recent years has been on the processes of financial socialization particularly amongst children and young adults. Several authors have discussed the differences between explicit financial socialization (Zhao & Zhang, 2020; Vijaykumar, 2022; Gibby et al., 2021) and implicit financial socialization. It was found that explicit financial socialization was less effective than implicit financial socialization (LeBaron-Black et al., 2023). Several authors have also looked at locus of control in relation to financial socialization, financial stress, financial well-being (Ullah & Yusheng, 2020; LeBaron-Black et al., 2022; Goyal et al., 2023). This

depicts growing academic interest in understanding role of internal and external influences in shaping financial outcomes.

## 2.4.2 Source Dynamics

Source dynamics gives the number of publications by source (journal) and how this had changed over time. Table 2.1 depicts the most relevant sources where financial socialization papers are present. The most prolific authors in the financial socialization domain on the basis of articles fractionalized are depicted in Table 2.1. Among the most prolific and influential authors in the domain of financial socialization, 8 scholars are affiliated to 6 universities in the USA, and two authors are from China and New Zealand respectively. The maximum number of articles from the database are in the Journal of Family and Economic Issues, Journal of Financial Counselling and Planning. Most of the top authors are from developed countries such as USA, China.



**Figure 2.3 Source dynamics**

The graph in figure 2.3 depicts that Journal of financial counselling and planning has consistently published papers in FS domain over the years. The Journal of family and economic issues has seen greater number of articles being published in the domain since

2009. All the top journals have observed growth in the publication of FS related papers post 2019, after the onset of COVID-19 pandemic.

### **2.4.3 Document Analysis**

Document Analysis refers to the assessment of top cited documents. Table 2.1 gives information about the citation metrics for the most highly cited papers. The top five highly cited papers include conceptual papers on family financial socialization (Gudmunson & Danes, 2011) and foundations of financial well-being (Drever et al., 2015). Empirical papers include articles on measurement of intergenerational transmission of risk and trust attitudes (Dohmen et al., 2012), financial socialization of first year college students (Shim et al., 2010), financial literacy of young adults and role of parental socialization (Jorgensen and Salva, 2010). Other key papers cover topics such as childhood and financial literacy (Grohmann et al., 2015), family processes and adolescent financial behavior (Kim et al., 2011), and the role of parents as financial socialization agents in youth financial literacy programs (Van Campenhout, 2015). The topics that the top authors have focused on from 2000 to 2025 are family studies, human development, family finance, financial socialization, couple relationships, personal finance, personal finance education, financial planning, work and family, family socialization, emerging adult development, financial literacy, risk tolerance, family business, religion and families, qualitative methods.

**Table 2.1 Most relevant authors, most relevant sources, most cited documents**

Most relevant authors			Most relevant sources			Most cited documents			
Authors	AC	AF	Sources	AC	IF	Paper details (First Author, Year, Source)	TC	TCPY	NTC
Lebaron-Black AB	23	6.08	JFEI	56	2.9	<a href="#">Dohmen T, 2012, Review of Economic Studies</a>	499	35.64	4.25
Zhu AYF	5	4.50	JFCP	22	2.4	<a href="#">Shim S, 2010, J Youth Adolescence</a>	479	29.94	1.76
Hill EJ	13	2.72	IJBM	14	10.04	<a href="#">Gudmunson CG, 2011, J Family Economic Issues</a>	344	22.93	3.14
Agnew S	5	2.67	JCA	11	3.2	<a href="#">Jorgensen BL, 2010, Family Relations</a>	298	18.63	1.09
Serido J	12	2.62	FR	8	1.8	<a href="#">Drever AI, 2015, J Consumer Affairs</a>	170	15.45	2.18
Kim J	7	2.33	IJCS	8	7.6	<a href="#">Kim J, 2013, J Financial Counseling and Planning</a>	142	10.92	3.64
Shim S	9	2.00	EA	7	2.6	<a href="#">Grohmann A, 2015, J Economic Psychology</a>	135	12.27	1.73
Chatterjee S	5	2.00	IJSE	5	1.7	<a href="#">Sohn S-H, 2012, J Adolescence</a>	125	8.93	1.06
Danes SM	5	1.87	JFT	5	0.50	<a href="#">Kim J, 2011, J Family Economic Issues</a>	105	7	0.96
Marks LD	9	1.82	YC	5	5.0	<a href="#">Van Campenhout G, 2015, J Consumer Affairs</a>	102	9.27	1.31

Note: Articles Count (AC), Articles Fractionalized (AF), Total Citations (TC), Total Citation per Year (TCPY), Normalized Total Citations (NTC), Impact Factor for year the 2024 (IF)

Journal of Family and Economic Issues (JFEI),  
 Journal of Financial Counseling and Planning (JFCP),  
 International Journal of Bank Marketing (IJBM),  
 Journal of Consumer Affairs (JCA),  
 Family Relations (FR),

International Journal of Consumer Studies (IJCS),  
 Emerging Adulthood (EA),  
 International Journal of Social Economics (IJSE),  
 Journal of Financial Therapy (JFT),  
 Young Consumers (YC)

#### 2.4.4 Word Dynamics

Word dynamics section unfolds the top keywords that have contributed to the growth of the literature in the domain of “financial socialization”. The top ten author’s keywords are financial socialization, financial literacy, financial well-being financial behavior, financial knowledge, financial education, young adults, family financial socialization, financial capability, emerging adults. Figure 2.4 depicts word cloud for top 50 author indexed keywords. The co-occurrence analysis of all author-supplied keywords (see figure 2.5) depicts keywords represented as nodes in a network graph. The node size depicts the frequency of the keyword. The higher the node size, the higher the mention of that particular keyword in an article. The edges in the graph show which keywords are connected. The overlay visualization of keyword co-occurrences depicted in figure 2.5 shows which keywords were largely present in articles in that particular year. The keywords “financial attitude”, “financial self-efficacy”, “financial capability” “family financial socialization” have been under the focus since the year 2023. The keywords “financial socialization”, “financial knowledge”, “financial wellbeing”, “financial literacy” have been under focus the year 2020 onwards. The focus on these keywords is more due to the widespread losses caused by Covid-19 pandemic. The concern to bounce back from the losses induced by the pandemic has led to rise in academic research related to financial socialization, financial literacy, financial knowledge and financial well-being. The researchers are examining ways in which financial wellbeing can be improved post pandemic. Also, financial socialization is one way to strengthen the financial attitudes, knowledge, skills and thereby consequent financial well-being.



Figure 2.4 World cloud of the top 50 words in author's keywords

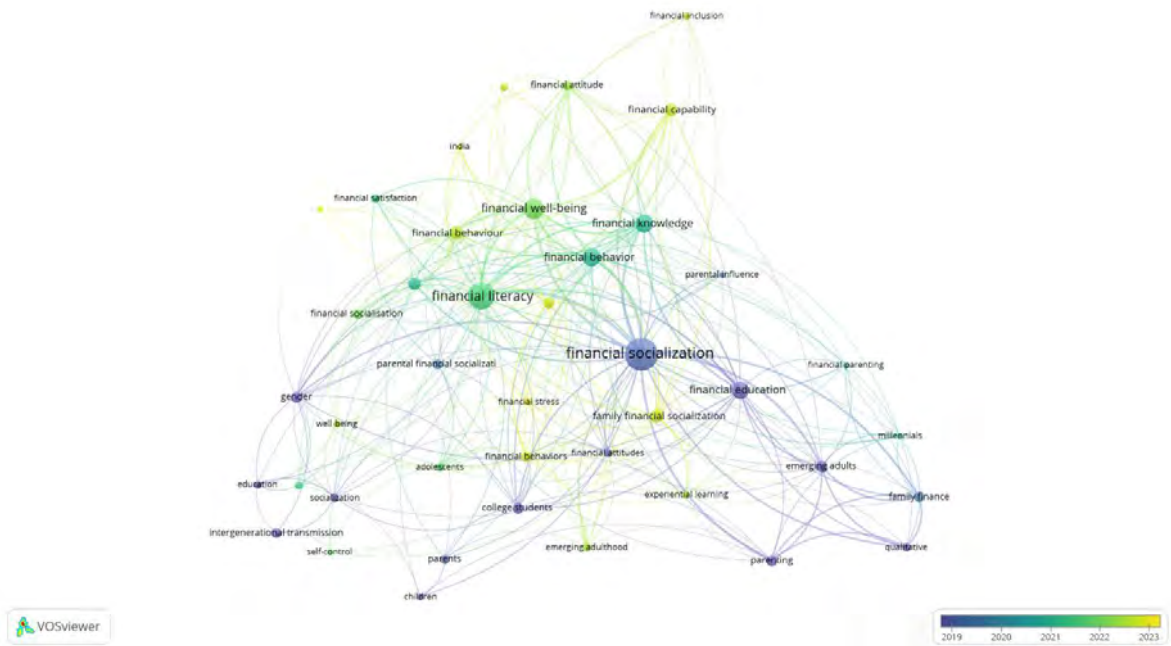


Figure 2.5 Overlay Visualization of Keyword Co-occurrences



authors, highly cited articles, highly cited journal sources highlighted the intellectual structure. The key insight from source dynamics is that the journals pertaining to family, economic issues, consumer affairs, financial counselling have greater article count. The document analysis reveals that the top articles have focused on understanding role of parents, work, education in shaping financial attitudes and behaviour. importance of socio demographic variables in shaping financial literacy, role of financial socialization in shaping financial wellbeing, childhood financial socialization, childhood roots of financial literacy, adolescents' financial literacy and financial behaviours. The word dynamics give an insight into the conceptual structure of the existing literature. The keyword co-occurrence analysis gives an overview of the conceptual structure of the financial socialization domain. There is a shift in research from financial socialization in 2019 to family financial socialization 2023 onwards. The focus of research has also shifted more towards understanding financial capability, financial self-efficacy, financial attitudes, financial behavior and financial well-being of individuals.

## **2.5 RQ2: TCCM Analysis – Theory – Context – Characteristics and Methods**

Our second research question is answered in the theoretical, methodological sub-section under TCCM analysis which provide insights on theories, conceptual framework, methods used in literature. TCCM analysis gives further insight into the theory, context, characteristics and methods of the existing literature.

### **2.5.1 Theoretical insights**

The key theory underpinning the extant literature is the family financial socialization theory (Gudmunson & Danes, 2011). Other prominent theories that have been used include family systems theory (Bowen, 1978), social learning theory (Bandura,1977),

consumer socialization theory (Ward, 1974; Moschis, 1987), theory of planned behavior (Ajzen, 1991) and social cognitive theory (Bandura, 1986). Table 2.2 depicts the research studies based on these theories.

**Table 2.2 Prominent Theories**

<b>Focus</b>	<b>Theory</b>	<b>Exemplary Studies</b>
Broader Context of Consumer Socialization	Social learning theory (Bandura, 1977)	Agnew (2018); Vijaykumar (2022); Gibby et al. (2021)
	Consumer socialization theory (Ward, 1974; Moschis 1987)	Zhu (2020); Lučić et al. (2025); Curran et al. (2018)
	Social cognitive theory (Bandura, 1986)	Goyal et al. (2023); Lučić et al. (2025)
Socialization theories in the specific context of families	Family systems theory (Bowen,1978)	Agnew (2018); Li et al. (2024)
	Family financial socialization theory (Gudmunson and Danes, 2011)	Zhao & Zhang (2020); Zhu (2020); Alsuwaidi et al. (2024); Kumar et al. (2023); Pandey and Utkarsh (2024); Okamoto et al. (2024); Kumar et al. (2024)
Not directly related to FS but consumer behavior	Theory of Planned Behavior (TPB) (Ajzen, 1991)	Goyal et al. (2023); Lučić et al. (2025)

Few theories focus on the process of learning through the environment and few specifically focus on how learning occurs through family members. The theory of planned behavior focuses on how the formation of intention and actual behavior occurs. Several studies have relied on multiple theories to explain the processes and outcomes of financial socialization.

### **2.5.1.1 Family Financial Socialization Theory (FFST)**

The key theory that has been used in the area of financial socialization is the “family financial socialization theory” which captures process of learning skills, attitudes, gaining knowledge from family members (Gudmunson & Danes, 2011). Family has a vital role in shaping financial behaviours among individuals. The role of parents is more prominent

in their children's financial socialization. Gudmunson and Danes (2011) conceptualized a model that identified the mechanisms of family socialization using eight pathways. Payne et al (2014) based their research study on FFST and studied personal and family characteristics such as materialism and religiosity among married couples and their association with retirement savings. [They found that materialism is negatively associated with retirement preparation, and religiosity is positively related to retirement preparation.](#)

Parental financial socialization and intergenerational transmission of financial attitudes and behaviors are subsets of socialization where learning happens through only one socializing agent, i.e., the parent. Perceived parental socialization refers to parental socialization as perceived by the children. Buccioli and Veronesi (2014) built on financial socialization aspects to study the extent to which parental financial socialization in young age contributes to savings in adult age. [Parental teaching to save improves the propensity to save in adulthood.](#) Mahapatra et al. (2024) based their research on family financial socialization model and examined the association between explicit parental financial socialization and desirable financial behaviour life satisfaction of college students. Gibby et al. (2021) based their study on FFST, social learning theory and examined associations between childhood implicit and explicit financial socialization through parents and family members on marital outcomes. [Gibby et al. \(2021\) found that implicit \(i.e., parental modeling\) and explicit \(i.e., direct conversations or experiential learning\) financial socialization in childhood have a negative association with financial disagreements post-marriage among married couples.](#) Gudmunson and Danes (2011) pointed out in their research article that very few studies have focused on the implicit and explicit mechanisms of socialization. [The findings of these research studies show that parental direct teaching as well as indirect learning by observing parents, both have an influence on child's financial behaviours.](#) Overall, it has been noted that parental financial

socialization through parental direct teaching has contributed positively to propensity to save among adults and enhanced desirable financial behaviours and life satisfaction of college students. Among married couples, financial socialization through implicit (i.e., parental modeling) and explicit (i.e., direct conversations or experiential learning) ways that occurred in childhood has contributed to amicable financial decisions post marriage. FFST theory has been widely used across financial socialization studies.

#### **2.5.1.2 Other theories**

Family systems theory underlines the eight concepts which govern family relationships. The concepts that are relevant to financial socialization are multigenerational transmission process and differentiation of self. Social learning theory emphasizes that an individual learns by observing the attitudes, behaviours of others in their environment. Britt (2016) documented that the theoretical underpinnings of intergenerational transference of money attitudes and behaviors lie in family systems theory and social learning theory. Agnew (2018) studied financial socialization of children by parents and based it on family systems theory and social learning theory. Vijaykumar (2020) studied financial socialization among college students in India and its association with their financial self-efficacy and autonomy. They based the study on social learning theory and financial socialization theory. Agnew (2018) and Vijaykumar (2020), both noted that financial discussions with parents contribute to financial learning among their children.

Social cognitive theory underlines the role of environmental factors along with personal factors in shaping behaviours of an individual. [Social cognitive theory helps in highlighting learning through observation](#). Consumer socialization theory focuses on the building of relevant attitudes, knowledge, skills for transitioning into a well-informed consumer through their environment. Theory of planned behaviour sheds light on how attitudes, norms, perceived control contributes to behavioural intention and further

influences actual behaviour. Goyal et al. (2023) studied the association between financial socialization and psychological characteristics on young professional's financial management behaviour. They based it on theory of planned behaviour and social cognitive theory. Lucic et al. (2025) studied the determinants of tweens' saving intentions and based it on consumer socialization theory, theory of planned behaviour and social cognitive theory. Goyal et al. (2023) and Lucic et al. (2025) highlight that financial socialization has a key positive contribution in shaping financial management behaviour and intentions correspondingly.

### **2.5.2 Contextual Insights**

The research studies have been conducted in a developed or developing country. Few empirical studies on financial socialization have been conducted in developed countries such as the USA and China. Many research studies have been conducted in developing countries. Very few multi-country studies have been conducted to understand financial learning. Also, different countries have different national cultures. Future research can aim at cross-cultural studies. The exemplary studies related to these countries are mentioned in Table 2.3.

The multi-country studies in financial socialization context provide an understanding that saving behavior is more prevalent in cultures with specific cultural dimensions. Also, it is noted that intergenerational transmission of risk preferences is predominant in cultures that have high parental engagement with their children. Countries with individualistic cultures have high propensity to save and countries depicting high levels of uncertainty avoidance save less (Cruz et al., 2024). Intergenerational transmission of risk preferences occurs in cultures where there is high parental involvement and financial parenting such as China, and also in cultures where nature of parent is more demanding such as Korea

(Hong et al., 2023). Hence, multi-country studies contribute cross-cultural insights that are not available in a single country study.

**Table 2.3 Country of study**

<b>Countries Studied</b>	<b>Exemplary Corresponding Study</b>
<b>North America and South America</b>	
US	Allen et al. (2007); Hryshko et al. (2011); Curran et al. (2018); Zhao & Zhang (2020); Wheeler & Brooks (2024); Bisla et al. (2025); Boto Garcia et al. (2022); Jorgensen et al. (2017); Kim et al. (2011); Koochel et al. (2025); LeBaron-Black et al. (2024); Li et al. (2024); Finister (2024); Gibby et al. (2021); Okamoto et al. (2024); Wiley (2024)
Canada	Ferguson et al. (2025)
<b>Asia</b>	
China	Zhu (2020); Li et al. (2024)
India	Utkarsh et al. (2020); Vijaykumar (2022); Goyal et al. (2023); Pandey & Utkarsh (2024); Kumar et al. (2024); Kumar et al. (2023); Gafoor et al. (2025); Mahapatra et al. (2024)
Indonesia	Johan et al (2021); Muat et al. (2025); Rahayu et al. (2024)
Thailand	Grohmann et al. (2015)
Pakistan	Khurshid et al. (2024)
Malaysia	Sabri et al. (2024)
<b>Europe</b>	
Croatia	Lučić et al. (2025)
Turkey	Alan et al. (2017); Cebeci (2024); Copur & Gutter (2019)
Lithuania	Legenzova and Lecke (2024)
Switzerland	Brown et al. (2018)
Netherlands	Buccioli & Veronesi (2014)
UK	Kerrane & Bettany (2025); Fletcher & Wright (2024); Robertson-Rose (2020)
Germany	Dohmen et al. (2012)
Italy	Coda Moscarola et al. (2024)
<b>Middle east</b>	
UAE	Alsuwaidi et al. (2024)
<b>Australia</b>	
New Zealand	Agnew & Cameron-Agnew (2015); Agnew (2018); Agnew & Sotardi (2025)
<b>Africa</b>	
Ghana	Chowa and Despard (2014)
Burkina Faso	Sepahvand & Shahbazian (2021)
<b>Multi-country</b>	
	Cruz et al. (2024); Hong et al. (2024)

### **2.5.3 RQ3: Characteristics - Themes within S-O-R framework**

Our third research question is answered in the characteristics sub-section which gives insight into the relevant themes through the lens of stimulus-organism-response(S-O-R) theory. The thematic analysis captures the characteristics (independent and dependent variables) in the financial socialization literature. The rationale for choosing S-O-R framework is to understand the stimuli, different organisms, psychological states of the organism and the subsequent responses in FS domain. S-O-R framework is a widely used framework to examine the process of how a stimulus affects an organism. Hence, S-O-R has been used to analyze financial socialization process and the behaviour of different organisms undergoing financial socialization. Financial socialization and related intergenerational transmission literature can be classified under the following key themes: 1) financial socialization agents, 2) individuals who are financially socialized and 3) outcomes of financial socialization. The following sections give detailed analysis of key themes and the sub-themes.

#### **2.5.3.1 Stimulus - Financial Socialization Agents**

The first theme is financial socialization agents, and it covers parents, children, grandparents (family members), teachers, peers, neighbors, governmental programs, financial intermediaries, social media, and newspapers.

Parents through financial discussions (Vijaykumar, 2022; Agnew, 2018), direct teaching (Legenzova & Lecke, 2024), financial monitoring (Kim, 2011), and timely guidance (Lučić et al., 2025) contribute to the financial socialization of their child. Parent participation in the preschool center of their child, parental expectations, and involvement contributed to financial asset ownership and savings in adulthood (Bisla et al., 2025). Parental norms also contribute to the financial socialization of the child (Zhu, 2020). Peers

(Vijaykumar, 2022; Goyal et al., 2023) also contribute to the financial socialization of individuals. Grandparents also mentor consumption choices (Kerrane et al., 2025) and help their grandchildren learn budgeting, saving, and consequent financial independence (Wiley, 2024). Romantic partners have been found to contribute to the life satisfaction of an individual in previous literature. School-based financial education has been found to improve the financial understanding between parents and children (Grohmann et al., 2015; Zhu, 2020). Social media is also an important financial socializing agent. Social media positively contributed to the personal financial management behavior of young professionals in India (Goyal et al., 2023). Government and related financial institutions also act as trusted financial socializing agents that introduce relevant financial schemes and programs, thus disseminating financial information to individuals (Marron, 2013; Van der Crujisen et al., 2021).

*It has been noted that the role of parents as a socializing agent has been highly effective in comparison to other socializing agents such as peers, social media* (Curran et al., 2018; Vijaykumar, 2022). In a study of students in Indonesia, Johan et al. (2021) found that formal financial education, such as a personal finance course, positively contributed to financial knowledge but did not impact financial attitudes or behavior. Only informal family financial socialization contributed to all aspects of financial capability (financial knowledge, attitudes, and behavior). Income, work experience, year/field of study, and discussing money with friends also shape financial behavior. Parents are the key socializing agent in an individual's life, followed by other socializing agents.

Financial socialization agents such as parents, grandparents, aunts, uncles, peers, etc., socialize through two different mechanisms, namely implicit financial socialization and explicit financial socialization. Implicit financial socialization includes learning through observation, parental modeling (Gibby et al., 2021), parental norms (Copur & Gutter,

2019; Watson & Barber, 2017) and explicit financial socialization includes direct discussions with socializing agent (Agnew, 2018; Vijaykumar, 2022), direct teaching by socializing agent (Utkarsh et al., 2020; Legenzova & Lecke, 2024; Wiley, 2024; Mahapatra et al., 2024), direct conversations with socializing agents (Gibby et al., 2021).

Most studies have employed explicit financial socialization (Chowa & Despard, 2014; Utkarsh et al., 2020). A few studies have employed both mechanisms to examine the financial socialization behavioral outcomes (Gibby et al., 2021; Vijaykumar, 2022; Legenzova & Lecke, 2024; Lučić et al., 2025). Some studies have even noted surprising results. Legenzova and Lecke (2024) found that explicit family financial socialization through discussions with parents has a positive contribution to the individuals' investment knowledge, skills, and attitudes. They also found that observing parents does not contribute to investment literacy. In a study of married couples, Gibby et al. (2021) found that implicit (i.e., parental modeling) and explicit (i.e., direct conversations or experiential learning) financial socialization in childhood have a negative association with financial disagreements post-marriage. Kim et al. (2011) noted that adolescents receiving an allowance from parents depicted less financial anxiety.

There are scarce studies that have employed implicit financial socialization. Prior literature has examined observing parents and parental norms to understand implicit financial socialization. In a study of Australian adults, Watson & Barber (2017) found that parental injunctive norms (how parents think an individual should be budgeting, spending, and saving) were strong predictors of financial behaviors for individuals who were studying and parental descriptive norms (how parents engage in tracking their monthly expenses, spending within the budget, saving money each month for the future) were a strong predictor for financial behaviors for individuals who were working. In a study of employees of a university in Turkey, among the psychological factors, the

planning horizon and perceived subjective norms have an influence on savings account ownership (Copur & Gutter, 2019). Financial attitudes can also be transmitted implicitly. Few studies have examined the influence of money attitudes on financial behavior and well-being, but they are single-informant studies (Pandey & Utkarsh, 2024; Utkarsh et al., 2020; Khurshid et al., 2024). Future research can focus on implicit financial socialization and uncover its effectiveness in shaping financial behaviors and consequent well-being. A few exemplary studies related to mechanisms of socialization are given in Table 2.4 and few exemplary studies related to financial socializing agents are given in Table 2.5.

**Table 2.4 Mechanisms of Socialization**

<b>Mechanisms of Socialization</b>	<b>Exemplary Studies</b>
Explicit Socialization	Chowa & Despard (2014); Utkarsh et al. (2020); Mahapatra et al. (2024)
Explicit and Implicit Socialization (Both)	Gibby et al. (2021); Vijaykumar (2022); Legenzova and Lecke (2024); Lučić et al. (2025)

### **2.5.3.2 Organism – cognitive, affective, behavioural changes among socialized individuals**

The second main theme focuses on the individuals who are financially socialized, and that includes children, adolescents, and adults. Financial socialization focuses on the changes at the cognitive (financial literacy), affective (financial attitudes, money attitudes), and behavioral (saving propensity, risk-taking, spending, investing) levels.

Individuals who are getting socialized may belong to different age groups. Prior literature has noted that financial socialization occurs as early as childhood and extends till

adulthood (Fletcher & Wright, 2024; Robertson-Rose, 2020). The unit of analysis in many financial socialization studies includes preschoolers (Fletcher & Wright, 2024), tweens (Lučić et al., 2025), adolescents (Kim et al., 2011), adults (Jorgensen et al., 2017), college students (Danahy et al. 2024), working professionals (Robertson-Rose, 2020). The ability to deal with life events at every stage contributes to financial satisfaction (Prakitsuwan, 2025).

Different age groups have different learning capacities. Table 2.5 presents a few exemplary studies focusing on different life stages. Individuals have different roles, financial responsibilities, and life experiences at every life stage. Drever et al. (2015) have outlined strategies and related touch points for different age groups to improve financial education and consequent financial well-being at later life stages. For pre-elementary students, Drever et al. suggested focusing on executive function development among elementary, high parental engagement for skill development of middle school students, and experiential learning for adolescents and young adults.

The changes that an individual getting socialized experiences can be categorized as change at a cognitive level, change at the affective level, and change at the behavioral level. A few cognitive aspects of financial socialization include improvement in financial literacy, financial knowledge, and financial self-efficacy. Prior research has noted that early childhood discussions at home contribute to a child's financial literacy levels (Agnew & Cameron-Agnew, 2015). In a study of individuals in Indonesia, Rahayu et al. (2024) noted that sociodemographic factors, social influence, communication patterns, and financial socialization contributed to Islamic financial literacy among individuals. Curran et al. (2018) found that parental financial socialization contributed to the financial knowledge of individuals. In a study of young adults in India, Vijaykumar (2022) found

that direct discussions with parents and peers contributed to young adults' financial autonomy and financial self-efficacy.

Affective aspects of financial socialization focus on financial attitudes. In a study of parent-child dyads in Burkina Faso, Sepahvand & Shahbazian (2021) found that intergenerational transmission of risk attitudes in three domains (general, traffic, financial matters) occurs from parent to children. Using primary data of students in Indonesia, Johan et al. (2021) found that family financial socialization contributed to their financial attitudes. Affective and cognitive aspects of financial socialization also include psychological states of the organism.

The internal psychological states evoked by a stimulus in financial socialization context include self-perception of an individual toward saving money, intention towards saving, sound money attitudes, positive beliefs about money and motivation to save money, budget money, plan spendings. Young et al. (2024) examined the role of cultural value of familism on financial attitude such as attitude towards financial planning among African Americans in USA and found that cultural value of familism positively and significantly contributes to the financial planning financial attitude. Cultural value of familism encourages the self-perception of individual that financial planning is important and needs to be prioritized. Prakitsuwan et al. (2025) also noted that simple decision like putting some money aside for retirement, adaptation process like socialization, small change in psychological states such as self-perception in an individual can lead to significant changes in consumer's behaviour.

Intention is key psychological state influenced through socialization process. Intention contributes to an actual behavior. In a study of 10–15 years old children in Croatia, Lučić et al. (2025) found that parental guidance has a strong positive significant influence on

saving intentions of tweens in comparison to guidance from peers. Allen et al. (2007) has noted that financial socialization through pleasant financial interaction with parents contributes to frequent imagined interactions in the mind of the corresponding children regarding spending money. Financial Independence is also a state of mind that occurs when an individual is financially self-reliant. In a study of black families, Wiley (2024) noted that grandmothers act as a financial socializing agent for their daughters and granddaughters. They teach them budgeting, saving skills and thus help them achieve financial independence.

Financial Confidence is also an intangible psychological state that can be influenced through family financial socialization. In a study of adolescents in New Zealand, Agnew & Sotardi (2025) found that family affluence and financial openness contribute to their financial confidence in banking behavior and budgeting behavior. Financial Socialization helps lower financial stress, thereby reducing psychological strain (Koochel et al., 2025; Danahy et al., 2024). Financial self-efficacy and financial autonomy of individuals is also improved through financial socialization. Vijaykumar (2022) examined young adults in India and found that direct discussions with parents and peers contributed to young adults' financial autonomy and financial self-efficacy.

Behavioral aspects focus on changes in earnings, budgeting behavior, spending behavior, saving propensity, investment behavior, related risk appetite, and handling financial responsibilities. Prior research has found that parents' advice regarding financial preparedness has contributed to working adult children's retirement savings in workplace pension schemes (Robertson-Rose, 2020). Financial socialization contributes positively to personal financial management behavior (PFMB) among young professionals in India (Goyal et al., 2023). Using a secondary panel dataset from the Dutch DNB Household

Survey of the Dutch population in the Netherlands, Buccioli and Veronesi (2014) studied the effect of parental teaching strategies on the propensity to save and the amount saved during adulthood. They found that parental socialization positively contributes to a propensity to save and increases the likelihood of saving by 16% and the amount saved by 30%. The most effective parental teaching strategy is a combination of giving pocket money, controlling money usage, and giving advice about saving and budgeting and saving since childhood and adolescence. Agnew & Sotardi (2025) found that family affluence and financial openness contribute to financial confidence in banking behavior and budgeting behavior among adolescents in New Zealand. Responsible financial behavior is subsequently associated with financially socialized individuals' long-term financial and overall well-being.

In the parental financial socialization context, parental-level factors (parenting styles, parental norms, parental direct teaching, discussions, parental monitoring) and individual-level factors (money attitude, self-control) are key drivers of the financial socialization process that bring change. Table 2.5 list a few exemplary studies related to individual and parental-level factors.

### **2.5.3.3 Response - Outcomes of financial socialization**

The type of response outcome can be categorized as short term or long term. Short term outcome lasts for a shorter time duration focuses on fulfilling present financial obligations and goals (i.e. day-to-day; month-to-month). It includes financial satisfaction of an individual. Long-term outcome last for a longer time and focuses on fulfilling present as well as future financial obligations and goals. Thus, it includes financial well-being of an individual. The outcomes can also be categorised on the basis of prevailing circumstances over time as well. Normal times are the time periods when there is no major disruption.

Difficult times are the time periods when there is an occurrence of a major disruption (e.g. COVID 19 pandemic).

The third prominent theme focuses on the expected short-term and long-term outcomes of financial socialization such as financial independence, interdependence (assuming responsibility for others), financial satisfaction, subjective financial wellbeing, objective financial wellbeing, wealth accumulation. This theme also focuses on outcomes of financial socialization, such as financial resilience, that help an individual navigate sudden or expected financial shocks.

Prior research done in normal times has noted that financial discussion with parents during childhood has a positive association with the financial wellbeing of young adults. Money attitudes also have a positive impact on the financial wellbeing of young adults (Utkarsh et al., 2020). Using primary data of millennials in Indonesia, Muat et al. (2025) found that family financial socialization indirectly contributes to their financial wellbeing through financial knowledge, skills, and behavior. In a study of individuals from India, Kumar et al. (2023) found that financial literacy, financial risk tolerance, financial socialization, financial stress, and socio-demographic factors have an impact on the financial behavior of individuals. Further, financial behavior, financial literacy, financial risk tolerance and financial socialization have an impact on financial wellbeing. Using primary data from US respondents, Zhao and Zhang (2020) found that parental financial socialization positively contributes to financial literacy (financial knowledge, financial skills, financial self-efficacy), financial behavior, and financial wellbeing.

In a study of students from Southeastern states of the US, Wheeler & Brooks (2024) found that financial identity statuses (achievement, moratorium, foreclosure, diffusion) are associated with financial wellbeing and financial anxiety of students directly and

indirectly through financial attitudes (feelings of preparation for taking on financial responsibilities and materialism) and financial behaviors (responsible credit management and compulsive spending). They also studied the influence of financial socialization on financial identities as a control variable and found a significant association. In a study of emerging adults aged 18-29 years (university students), Alsuwaidi et al. (2024) found that gender, monthly expenses, financial literacy, and financial socialization have an impact on the financial capability of the students. The student's financial risk tolerance has a moderating role in shaping the association between financial capability and the students' financial behavior. Gafoor et al. (2025) studied the financial wellbeing of migrant laborers in India and found that financial socialization indirectly contributed to their financial wellbeing through financial behavior and financial knowledge.

For difficult times, prior research by Koochel et al. (2025) has noted that frequent financial socialization in good times can reduce financial stress due to financial shocks during unprecedented times. Using primary data of young Malaysians during the Covid-19 pandemic, Sabri et al. (2024) studied the influence of financial literacy, self-control, financial socialization, and financial technology on their financial behavior and wellbeing. They found that the determinants have a significant association with financial behavior and consequent financial wellbeing. Table 2.5 depicts the outcomes of financial socialization, related behaviors, intentions, attitudes, and exemplary studies.

#### **2.5.3.4 Cultural dimensions and Financial Socialization**

An individual's cultural background impacts the financial socialization process and its outcomes. Prior research by Young (2024) noted that supportive family members and related familism cultural values indirectly shape consequent financial wellbeing through financial attitudes and behavior intentions among African Americans. In a study of 24,512 individuals from 12 countries, De Beckker et al. (2020) found that individuals in countries

with national cultures inclined towards individualism have lower financial literacy. In a study of secondary school students in Switzerland, Brown et al. (2018) found that students from French-speaking regions have lower levels of financial literacy than students from German-speaking regions. They also concluded that cultural differences can lead to different financial literacy levels across different language-speaking groups due to differences in financial socialization levels. Using secondary data of individuals from 48 countries from the World Values Survey (2017–2020) and Hofstede Insights (2024), Cruz et al. (2025) found that individuals from individualistic countries save more and individuals from countries depicting high levels of uncertainty avoidance save less. They found no significant association between long-term orientation and saving behavior.

**Table 2.5 Key findings of exemplary papers based on the S-O-R framework**

		Papers	Findings
<b>Stimulus socialization agents</b>	Parents	Vijaykumar, (2022); Agnew, (2018); Legenzova & Lecke, (2024); Kim, (2011); Lučić et al., (2025); Bisla et al., (2025); Zhu, (2020); Curran et al., (2018); Mahapatra et al. (2024); Finister (2024)	Parents play an effective role in shaping financial attitudes and behaviors of individuals through discussions with them, guidance, direct teaching, norms etc.
	Grandparents	Kerrane et al., (2025); Wiley, (2024)	Grandparents help grandchildren learn better consumption choices and how to budget, save money.
	Peers	Vijaykumar, (2022); Goyal et al., (2023)	Peers also contribute to shaping of financial self-efficacy, financial autonomy and personal financial management behavior.
	School/Teachers	Grohmann et al., (2015); Zhu, (2020)	School education contributes to shaping of financial behaviours among students.
	Social media	Goyal et al., (2023)	Social media contributes to personal financial management behavior.
	Government/Financial Institution	Marron (2013); Van der Cruijssen et al., (2021)	Government and Financial Institutions contribute to financial knowledge of individuals.
<b>Organism person getting socialized / Life-Stages of an individual</b>	Young Preschoolers (4-6 yrs)	Fletcher and Wright (2024)	Children (aged 4-6 years) who indulged in regular discussions with parents about finances experienced better understanding of the finances.
	Teenagers	Lučić et al. (2025)	Parental guidance contributes to saving intentions of tweens.
	College Students	Vijaykumar (2022); Johan et al. (2021); Danahy et al. (2024)	Financial socialization contributes to financial knowledge, skills, attitudes, financial self-efficacy and financial autonomy of college students. High level of financial socialization help mitigate financial stress due student loan debt and lack of emergency savings among college students.
	Young Adults	Pandey and Utkarsh (2024); Alsuwaidi et al. (2024); Chowa & Despard, (2014)	Financial socialization contributes to financial behavior and financial capability of young adults.
	Individuals (18-55 years)	Legenzova and Lecke (2024)	Discussions with parents positively contribute to investment literacy of individuals.
	Married Couples	Gibby et al. (2021)	Parental financial socialization in childhood have a negative association with marital financial disagreements among both men and women post marriage.

**Table 2.5 (contd.) Key findings of exemplary papers based on the S-O-R framework**

		Papers	Findings
<b>Response outcomes of socialization</b>	Financial wellbeing	Zhao & Zhang (2020); Utkarsh et al. (2020); Kumar et al. (2023); Sabri et al. (2024); Wheeler & Brooks (2024); Kumar et al. (2024); Koochel et al. (2025); Young (2024)	Financial Socialization contributes to financial wellbeing of individuals in normal as well as difficult times.
	Financial literacy	Agnew & Cameron-Agnew (2015); Brown et al. (2018); Rahayu et al. (2024); De Beckker et al. (2020)	Parental financial socialization contributes to financial literacy and financial knowledge levels. Individuals in countries with national cultures inclined towards individualism have lower financial literacy. Linguistic differences influence financial literacy levels.
	Financial self-efficacy	Vijaykumar (2022)	Discussions with parents and peers and observing parents and peers contributes to financial self-efficacy levels.
	Risk appetite	Alan et al. (2017); Hong et al. (2024); Sepahvand & Shahbazian (2021); Boto-García et al. (2022); Hryshko et al. (2011); Dohmen et al. (2012)	Parental involvement and financial parenting contributes to intergenerational transmission of risk attitudes and risk preferences.
	Financial Behavior	Agnew & Sotardi (2025); Pandey and Utkarsh (2024); Goyal et al. (2023); Zhao & Zhang (2020); Copur and Gutter (2019) Bucciol & Veronesi (2014); Kim et al. (2011); Jorgensen et al. (2017); Chowa and Despard (2014); Khurshid et al. (2024); Robertson-Rose (2020); Payne et al (2014)	Financial Socialization contributes to building of financial behaviors such as healthy saving behavior, responsible spending behavior, personal financial management behavior and financial decisions.

## 2.5.4 Methodological Insights

Most studies in the FS domain have used quantitative methods (50 studies) to understand the impact of financial socialization and various other antecedents on financial behavioral outcomes. Very few papers focused on mixed methods (2 studies), qualitative methods (2 studies), intervention-based methodology (2 studies), and conceptual-based aspects (4 studies). Zhu (2020) showed how school financial education intervention improved the association of parental financial socialization on participants' saving behavior. Robertson-rose (2020) used a mixed-methods methodology and emphasized the importance of parents' advice in contributing to the workplace pension scheme. The specific modeling approaches in the studies include ordinary least squares regression (Kim et al., 2011), multinomial logistic regression (Copur & Gutter, 2019), multiple regression (Chowa and Despard (2014), one-way analysis of variance (Utkarsh et al., 2020), structural equation modeling (SEM) (Dohmen et al., 2012; Khurshid et al., 2024; Goyal et al., 2023; Lučić et al., 2025), propensity score analysis (Chowa & Despard, 2014), hierarchical linear regression (Curran et al., 2018), ANOVA (Jorgensen et al., 2017), actor-partner interdependence (APIM) SEM (Gibby et al, 2021). [Table 2.6 and table 2.7 depict the methodologies and related exemplary studies.](#) Most papers have worked with primary data, and very few have worked with secondary data. Most of the studies have examined cross-sectional data. There is scarce research that has used longitudinal data. Bisla et al. (2025) used longitudinal data from Chicago Longitudinal Study to ascertain the role of various childhood factors in predicting a child's financial outcomes in adulthood (savings, retirement assets).

**Table 2.6 Different methodologies and their benefits**

Methods	Benefits of methods	Number of studies reviewed in TCCM Analysis
Quantitative	Provides empirical evidence, helps establish associations between two variables (cross-sectional data), helps establish cause effect relationship between two variables (longitudinal data, experimental data)	50 studies
Mixed methods	Provides contextual insights as well as required empirical evidence.	2 studies
Qualitative	Provides contextual insights into human social interactions.	5 studies
Conceptual	Provide theoretical grounding for research studies (theoretical conceptual frameworks, theories, concepts)	4 studies

**Table 2.7 Detailed Description of methodologies used in FS domain and their benefits**

Methods	Usage and Benefits of methods	Exemplary Studies
T-test	To compare means of two socio-demographic groups	Legenzova & Lecke (2024)
Principal component Analysis	To reduce dimensionality of measured variable such personal values	Cruz et al. (2025)
One-Way ANOVA	To check difference in means of more than two groups	Jorgensen et al. (2017); Allen et al. (2007); Utkarsh et al., (2020)
Multiple Linear Regression	To check the association of more than one independent continuous variable. To find best fit line by minimizing errors between observed values and predicted values.	Johan et al. (2021); Chowa and Despard (2014)
OLS Regression	To find best fit line by minimizing the sum of squared differences between the observed values and the values predicted by the model.	Kim et al., (2011); Pandey and Utkarsh (2024); Grohmann et al. (2015); Dohmen et al., (2012); Brown et al., (2018); Sepahvand & Shahbazian (2021)
Multinomial Logistic Regression Analysis	To understand the association of more than two independent variables. The dependent variable is binary	Copur & Gutter, (2019)
Hierarchical Linear Regression	To check the influence of one variable and then adding other variables step by step (e.g variable 1 individual level, variable 2 country level variables)	Curran et al., (2018)

Logistic regression	When dependent variable is binary and discrete in nature	Kim et al. (2011)
Ordered Probit regression model	When dependent variable is binary and discrete in nature	Danahy et al., (2024)
Probit model, Logit model, tobit model	When dependent variable is binary and discrete in nature	Cebeci (2024); Bucciol & Veronesi (2014)
Multi-level Logistic regression	To check the influence of one variable and then adding other variables step by step (e.g variable 1 individual level, variable 2 country level variables)	Cruz et al. (2025)
CB-SEM	To test multiple direct, indirect hypotheses, Can be used when data sample size is large	Zhu (2020); Alsuwaidi et al. (2024); Utkarsh et al., 2020
PLS-SEM	To test multiple direct, indirect hypotheses, can be used when data sample size is small and is non-normal in nature.	Khurshid et al., (2024); Goyal et al., (2023); Lučić et al., (2025); Zhao & Zhang, (2020)
AIPM SEM	To check interdependence among married or romantic couple dyads. (e.g. To understand financial disagreements between married couples)	Gibby et al. (2021)
Thematic Analysis	To gain insights from qualitative data	Wiley (2025); Ferguson et al. (2025)

The different methodological techniques add value to the existing research by allowing to analyze continuous and discrete data.

### 2.5.5 Sectional conclusion on TCCM analysis

TCCM analysis uncovered the theories, contexts, characteristics, methods in the existing financial socialization literature. The research studies have based their studies on single theory or multiple theory approach. Prominent theories in the FS domain include family financial socialization theory (Gudmunson & Danes, 2011). Few other theories include family systems theory (Bowen,1978), social learning theory (Bandura,1977), consumer socialization theory (Ward, 1974), theory of planned behavior (Ajzen, 1991), social cognitive theory (Bandura, 1986). The context of research studies has been developed or developing countries with collectivistic or individualistic national cultures. The characteristics of the research studies shed light on the three financial socialization themes

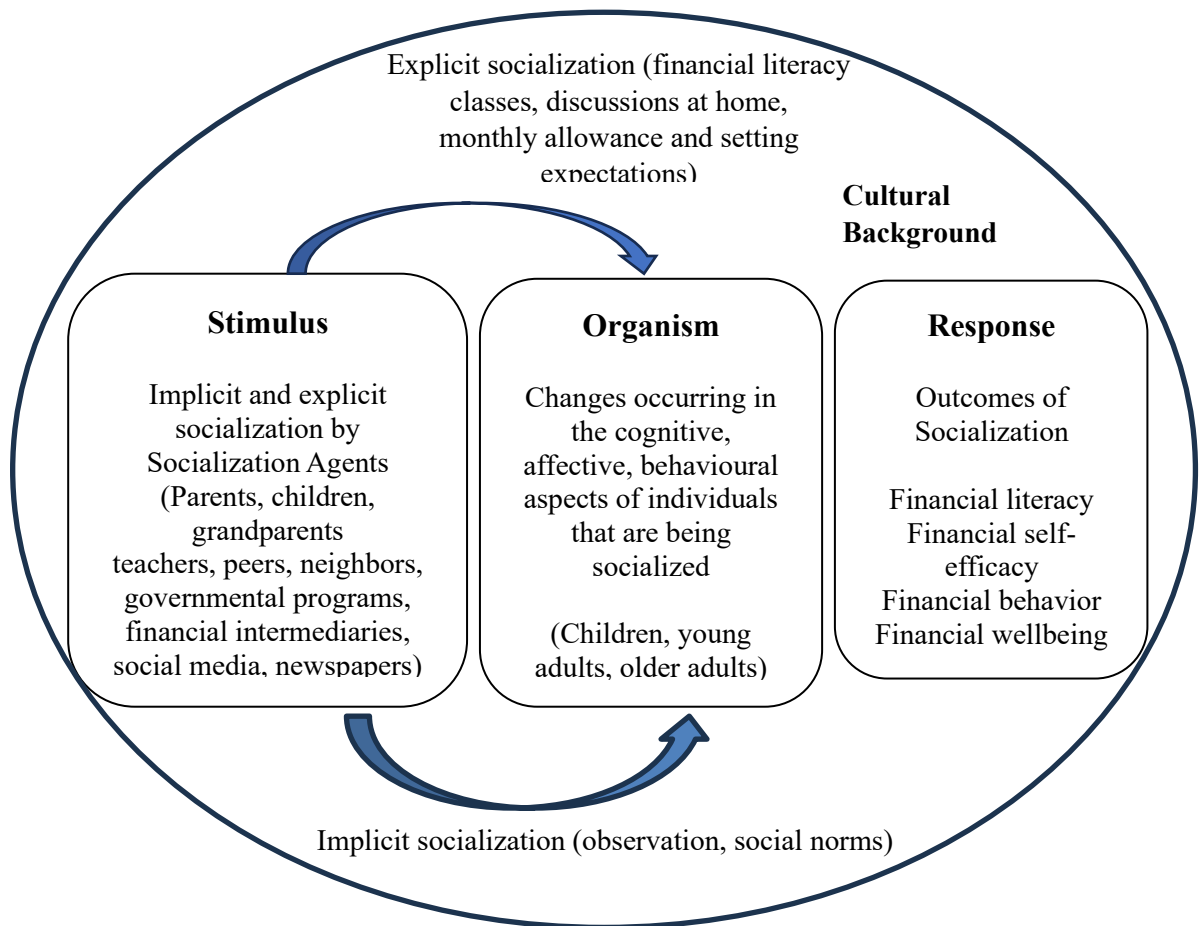
within S-O-R framework i.e. financial socialization agents-stimulus (Theme 1), individuals who are financially socialized and their psychological states-organism (Theme 2), and outcomes of financial socialization-response (Theme 3). The most efficient socializing agent are parents of the child. The individuals getting socialized can be a pre-schooler, adolescent or an adult. The psychological states of the individual studied includes imagined interactions, saving intentions, saving attitudes, self-perception, self-efficacy, financial confidence, financial independence. The shift in psychological state can result in changes in financial outcomes such as financial behavior and financial wellbeing. The methods employed largely have been quantitative in nature. The widely used methods include ordinary least square regression, structural equation modelling and logistic regression. Future research can carry out more qualitative studies.

## **2.5.6 Conceptual Model Based on Financial Socialization Themes**

### **Using S-O-R Framework**

To summarize, the themes mentioned in the results and discussion section are interconnected in nature and can be represented by a diagram given in Figure 2.7. Figure 2.7 represents themes in a conceptual model inspired by the S-O-R framework, where financial socialization agents act as the stimulus, financially socialized individuals act as the organism, and outcomes of financial socialization act as the response. The socializing agents and socialized individuals are interconnected by implicit and explicit socialization mechanisms. The circle that envelops and influences the process of socialization represents the cultural background of the individual. [The conceptual model thus shows relationship between socializing agents, individuals getting socialized, their psychological states and outcomes of socialization.](#) The table 2.5 provides key findings of exemplary studies in S-O-R framework.





**Figure 2.7 Conceptual Model of Financial Socialization**

## 2.6 RQ4: Key challenges and research gaps

A major key challenge is the improvement of individuals' behavioral outcomes through practical means. Many countries have reported lower levels of financial literacy and financial wellbeing. Every country needs to take proper steps to improve financial literacy and other related behaviors of individuals that would act as a financial cushion during unpredictable moments in life. Financial socialization is one of the ways to improve financial learning among individuals.

Existing scales measure financial socialization in general. There is no specific scale that measures financial socialization through siblings or parents in developing country context. The accurate measurement of financial socialization through parents or siblings

is important. Measurement is important to generate empirical evidence. One of the key empirical issue is the accurate measurement of variables. The theoretically developed, highly reliable scales cater to measuring the financial socialization variables. Such scales can be unidimensional or multidimensional. Recently, Lebaron-black (2024) introduced the multidimensional Parent Financial Socialization Scale (PFSS). The scale is highly reliable and focuses on measuring the Parent Financial Modeling Scale (eight items), the Parent-Child Financial Discussion Scale (nine items), and the Experiential Learning of Finances Scale (three items). This scale can be employed for studies in the US, a developed nation. Also, Agnew et al. (2025) developed a peer financial modeling scale to understand the role of peers in the financial socialization of adolescents. They found that peers contribute to the financial situation of adolescents. They also evaluated the reliability of PFSS scales developed by Lebaron-black (2024) and found it positively associated with the financial literacy of adolescents. There is room to develop scales for developing countries to measure financial socialization.

A few more research gaps are as follows. A few studies related to psychological variables have been published in A\*, A, or B-category journals. These studies so far have looked at psycho-social antecedents of risk attitudes (Sepahvand & Shahbazian, 2021), saving attitudes (Coda Moscarola et al., 2024), self-control (Boto-Garcia et al., 2022). Copur & Gutter (2019) studied the role of following psychological factors namely financial risk tolerance, impulsivity, anxiety, distrust, planning horizon, number of perceived barriers in shaping savings account ownership among employees in Turkey. There is scarce research done in the context of the sudden and expected shock. More research is needed to gather empirical evidence regarding how financial socialization can improve financial wellbeing during unprecedented times across different countries. Very few studies have examined the effectiveness of financial socialization among older adults and financial

socialization through siblings. Also, in the context of the pandemic in developing countries like India, no extant study looks at the role of psychological variables and their association with financial behavioral outcomes. The thematic analysis has highlighted that very few studies have examined money attitudes' role in financial socialization. The methodological insights from the money attitude-based studies highlight that single informant studies are many, but multi-informant studies are scarce. Also, very few studies have examined implicit financial socialization. Most papers have worked with primary data, and very few have worked with secondary data. Most of the studies have examined cross-sectional data. Future research can focus on the following research propositions given in Table 2.8. The research propositions belong to two categories empirical research gap and theoretical research gap.

**Table 2.8 Broad research gap and research propositions**

Broad research gap	Research propositions
Empirical research gap	To design a scale for developing country context measuring parental financial socialization.
	To analyze the role of psychological variables in shaping behavioral outcomes of financial socialization during normal times.
	To analyze the role of psychological variables and their association with financial behavioral outcomes in the context of financial shocks due to the recent pandemic.
	To investigate implicit financial socialization.
Data and Methodological research gap	To design and analyze interventions to improve financial behaviors and financial wellbeing of youth today.
	To use multi-informant data in analyzing associations between antecedents and behavioral outcomes.
	To examine bi-directional associations between parent-child financial learning using cross-sectional data
	To establish causation among the bi-directional relationships between parent-child financial learning using longitudinal data.
	To examine longitudinal data to understand the role of parents in shaping financial behaviors and financial wellbeing of young adults.

The empirical research gap-based research propositions will help gather the requisite empirical evidence on how intrinsic factors and implicit financial socialization contribute to shaping financial outcomes, such as behavior and well-being. Research propositions based on data and methodological gaps will strengthen the accuracy of empirical evidence. Experimental methods, multi-informant data, and longitudinal data will help in establishing causality. More accurate results will enable policymakers to develop effective policy recommendations for financial education.

## **2.7 RQ5: Practical Implications**

The important factors that guide practical implications-based solutions include feasibility of implementation of the solution, cost-benefit assessment. Financial education programs can easily be conducted in collaboration with schools and colleges. The fee for different financial education programs can be reviewed by parents and their children before enrolment. Also, there is need of action steps, efforts at individual level and well-defined policies at national level. The practical implications of this study are that the findings can help design effective financial education and financial counseling programs in personal finance and financial wellbeing. A few conceptual papers have highlighted key points that need consideration. Britt (2016), in a conceptual note document, outlined the theories (family systems theory, social learning theory) that support intergenerational transmission of attitudes and behaviors. Britt also discussed strategies (using a money genogram, assessing money beliefs and behaviors using highly reliable scales in literature, and consulting a mental health professional) to mitigate financial stress in families. Van Campenhout (2015) noted that the role of parents in financial literacy programs is not well developed and cited guidelines for how parental engagement can be improved. A few guidelines were that parental awareness, parents' collaboration with schools, and practical financial experience with parental involvement need encouragement. In a study, Ferguson

et al. (2025) noted that societal factors encourage financial record-keeping among individuals and help them transition into financially responsible mature adults. Financial program curators and policy makers may incorporate the above-mentioned strategies, guidelines, and action steps, such as financial record-keeping rules, to cater to financial learning among individuals. The key implication after reviewing FS studies is that financial socialization in early childhood or early in life can provide pleasant imagined interactions, higher propensity to save, budget, plan finances, better financial confidence and early financial independence among individuals. In long-term, it will improve financial behaviour, financial well-being of individuals by aiding the ability to meet day-to-day and month-to-month financial obligations.

## **2.8 Conclusions**

Financial Socialization has a key role in shaping the financial behavioral outcomes of financial literacy and financial well-being. Research in this domain has increased in recent years. The objective of the study was to understand the key insights and key themes in financial socialization literature. Firstly, I focused on knowing the relevant authors, journals, and research articles in existing research. The bibliometric analysis provided insights into the relevant authors, journals, and research articles. I observed the research trends and found how the current research focuses on keywords such as financial attitudes, financial self-efficacy, financial wellbeing.

Secondly, I focused on uncovering theoretical and methodological, contextual insights from the existing literature. The leading theory used is family financial socialization theory (Gudmunson & Danes, 2011). Few other theories include family systems theory (Bowen,1978), social learning theory (Bandura,1977), consumer socialization theory (Ward, 1974), theory of planned behavior (Ajzen, 1991), social cognitive theory

(Bandura, 1986). Primarily, quantitative methods have been used in financial socialization research. I observed that qualitative research can be encouraged in this domain. I also observed that few studies have been done in developing countries.

Thirdly, I focused on understanding the themes present in the existing research studies. The three broad themes identified are financial socialization agents acting as the stimulus (Theme 1), individuals who are financially socialized acting as the organism (Theme 2), and outcomes of financial socialization (Theme 3) acting as the response. I noticed that the process of socialization is influenced by the cultural background of an individual. The themes are interconnected in nature and can be represented by a conceptual model.

Fourthly, I identified the key challenges and research gaps present in the literature. I noted that effective implementation of financial learning methods or efficacy of financial socialization needs to be ascertained so that the individuals' sound financial attitudes are imbibed early in life and sound financial behaviors are developed. This is important as it will influence their long-term financial well-being. Based on the insights, more research needs to be done on intrinsic individual factors such as psychological variables. Precisely, few research articles focused on the psychological antecedents of financial socialization. The research papers where money attitudes predict behavioral outcomes have considered perceived financial socialization and captured self-reported offspring data only. Future research can use both parent-child dyad data to report accurate findings. Very few studies have looked at implicit financial socialization. Surprisingly, as far as behavioral outcomes are concerned, very few studies have looked at the subjective financial well-being of young adults in the pandemic setting. Also, very few studies have incorporated mixed-method, intervention-based methodology. Future researchers should consider longitudinal data. Future researchers can focus on the above-mentioned research gaps.

Fifthly, I shed light on the important implications for policymakers and financial counselors. A child can take different action steps at different ages to learn a particular skill. These learning moments should be addressed effectively through parental involvement for financial skill development in kids. Policymakers and financial counselors may focus on forming appropriate policies and programs that cater to these learning touchpoints and effective parental collaboration and engagement. The further practical implications of the bibliometric analysis are that it sheds light on the publication dynamics of research articles in the financial socialization domain over the years. The theoretical implication is that the thematic analysis highlights the interconnected themes in the existing literature and adds to the existing literature. The major limitation is that the database used is from Scopus and Google Scholar. Future research can incorporate other databases.

# Chapter 3: Intergenerational Transfer of Money Attitudes, Risk Avoidance and Impact on Investment Preferences: A Dyadic Study

## 3.1 Introduction

Young people around the world are facing unprecedented economic challenges and uncertainties post COVID-19. Macroeconomic impacts of the pandemic included high levels of unemployment which led to poverty and income disparities across the world (Narayan et al., 2022). The Russia-Ukraine war precipitated a cost-of-living crisis that has exacerbated financial stress among Generation Y and Generation Z (Van Egdom et al., 2022). Large scale layoffs in the technology sector due to the advent of AI has further exacerbated the economic woes of the younger generation. According to the ADP Research Institute's 2023 report on the global workforce, 62% of workers feel that economic uncertainty exists in all industries, and 37% do not feel secure in their jobs. Job insecurity is reported to be highest among Gen Z, with 50% of young adults being insecure about their careers and financial future.<sup>2</sup>

Money occupies a salient and central role in our lives, providing several psychological benefits such as feelings of security, independence, self-esteem and an enhancement of social status (Cohen et al., 2019). Conversely, lack of money increases feelings of inadequacy, insecurity, and reduces intra-personal trust. Individuals often form strong and stable attitudes towards money that are influenced by their childhood experiences and aspirations (Duh, 2016; Smith, 2016), their social circumstances (Rose et al., 2019), and

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<sup>2</sup> <https://www.adpri.org/wp-content/uploads/2023/04/People-at-Work-2023-A-Global-Workforce-View-1.pdf>

the extent to which spirituality or materialism influences their overall world view (Kim, 2014). Attitudes towards money may further impact an individual's financial risk appetite and their investment choices.

Many studies have examined intergenerational transmission of values, attitudes and patterns of behavior (Albert and Ferring, 2012; Cemalcilar et al 2018; Grønhøj and Thøgersen, 2009; Brenøe and Epper, 2022, Wang et al, 2022; Barni et al 2024). Since parents are the first socializing agents in a child's life, parental values, parenting styles, and parental involvement play a key role in shaping a child's beliefs, values and attitudes (Chowdhury et al, 2022, Brenøe and Epper, 2022). However, no extant study has empirically tested the relationship between money attitudes of parents and their adult children, and the extent to which this impacts their financial risk avoidance. These research gaps motivate the current study.

The primary research question we address is whether the money attitudes of young adults reflect the corresponding money attitudes of their parents. [The parental financial socialization is the social factor in this study.](#) We also investigate whether parental money attitudes impact the financial risk avoidance of young adults, and whether this relationship is mediated through the adult child's own money attitudes. [The psychological factor is the money attitude in this study.](#) We used the money attitude scale developed by Yamauchi and Templer (1982) and a scale for financial risk avoidance developed by the authors. [The psycho-social antecedents of risk avoidance attitude \(i.e. a financial attitude\) are being studied in this study.](#) Primary data was collected using a web-based questionnaire that was simultaneously administered to young adults (with independent earning experience) and one of their parents. Dyadic analysis of data from 251 parent-child pairs allows us to test the model of intergenerational transfer of money attitudes, ensures accuracy of self-reported attitudes and takes care of omitted variable biases.

Our study makes several original contributions to extant literature. We find that money attitudes as well as risk avoidance attitudes of parents and their adult children have a statistically significant and positive correlation. Further, we find that parental money attitudes impact their adult child's financial risk avoidance, and this relationship is mediated by the adult child's corresponding money attitudes. Thus, this is one of the first studies that finds empirical support for the intergenerational transmission of money attitudes, and its impact on financial risk avoidance.

## **3.2 Theoretical background**

We discuss below some theories from the fields of sociology and psychology that explain the processes of intergenerational transmission of values and attitudes.

### **3.2.1 Family Systems Theory**

The social learning theory (Bandura, 1977) emphasizes how individuals learn by simply observing peers in their social environment. A family is the first social unit that a child is aware of and parents are the primary socializing agents for young children in their formative years. The family systems theory (Bowen, 1966) sheds light on how families act as a system which converges on some equilibrium. The following four principles of the family systems theory are particularly relevant to the intergenerational transmission of values: (i) differentiation of self, (ii) multigenerational transmission processes; (iii) family projection processes, and (iv) societal emotional processes. Differentiation of self refers to the extent to which an adult differentiates himself or herself from their family of origin and take independent decisions in their lives. Multigenerational processes refer to the impact of similar or different value systems that emerge over generations, determined by the extent to which young adults are successful in self-determination. Family

projection processes refer to parents projecting their own emotional or psychological issues on their children that may influence their children's career or financial choices. Finally, the societal emotional processes refer to how social norms play an important role both in the way parents may interact with their children, and also by shaping parental values and belief systems (Kerr, 2000).

Attitudes towards money is learned by children as they observe the world around them and are socialized by their parents, teachers and friends. Attitudes towards money start developing at a young age and solidify into stable attitudes by the time the child reaches adulthood. Parental attitudes and parental behavior towards money related matters, and the situation in the family during childhood including possible conflict and arguments in the family may affect the child's attitudes towards money when they grow up. Learning about how to deal with money among children can be attributed to the theory of cognitive development given by Jean Piaget (1954) which highlights different stages of thinking, reasoning among child from infant years to adulthood years.

### **3.2.2 Multi-dimensional Nature of Money Attitudes**

Money attitudes are one of the key psychological aspects of money which influence the financial decisions of individuals. Individuals ascribe a specific meaning to money that determines their attitudes towards money (Argyle and Furnham, 2013). These attitudes, in turn, form the basis of intentions and actual behaviors. Money attitudes cover cognitive, affective and behavioral components that drive financial behaviors such as budgeting, saving, investing. Several authors have considered the multi-dimensional nature of money attitudes (Sesini and Lozza, 2023). A few salient dimensions of money attitudes have been proposed by several authors – these are related to the material and social benefits of having money or lack thereof.

Yamauchi and Templer (1982) identified five dimensions using their money attitude scale namely power-prestige, retention-time, distrust, quality and anxiety. Subsequently, Furnham (1984) introduced a more comprehensive instrument called the money beliefs and behavior scale (MBBS) that derived similar dimensions of money attitudes viz. obsession, power/spending, retention, security/conservative, inadequacy, effort/ability. Lim & Teo (1997) identified eight dimensions of money attitudes namely obsession, power, budget, achievement, evaluation, anxiety, retention, non-generous. Tang (1992) identified six dimensions of the ethics of money viz. good, evil, achievement, respect, budget, freedom aspects of money and further presented a shortened scale (Tang, 1995) that arrived at only three dimensions viz. Success, budget and evil. Rose & Orr (2007) developed the money-motivation scale (MMS) which identified following dimensions of money attitudes namely worry, status, achievement, security. Klontz money script inventory (KMSI) introduced by Klontz et al. (2011) identifies following dimensions of money attitudes namely money avoidance, money worship, money status, money vigilance. Chen et al. (2014) developed the monetary intelligence instrument that consists of the behavioral component (making, budgeting, donating money, and contributing), affective component (aspiration for money and strong emotions), cognitive component (achievement, respect, power, and happiness). Interestingly in the money intelligence scale, there are no negative dimensions that capture the worry of not having enough money.

Three distinct dimensions of money attitudes emerge from the extant literature, and the constructs from each scale that align with these three dimensions are depicted in Table 3.1

**Table 3.1. Money attitude scales in prior literature and their dimensions**

<b>Authors</b>	<b>Scale name</b>	<b>Dimensions in the Proposed Scale</b>	<b>Dimension 1 Social or aspirational function of money</b>	<b>Dimension 2 Financial security and financial prudence</b>	<b>Dimension 3 Anxiety</b>
Yamauchi and Templer (1982)	Money attitude scale (MAS)	Power-prestige, Retention-time, Anxiety, Distrust	Power-prestige	Retention-time	Anxiety, Distrust
Tang (1992)	Money Ethic Scale (MES)	Good, achievement, respect, freedom, Budget, Evil	Good, achievement, respect, freedom	Budget	Evil
Furnham (1984)	Money Beliefs and Behavior Scale (MBBS)	Obsession, Power/spending, Effort/ability, Retention, Security/ conservative, Inadequacy	Obsession, Power/spending, Effort/ability	Retention, Security/ conservative	Inadequacy
Rose & Orr (2007)	Money-Motivation Scale (MMS)	Status, Achievement, Security, Worry	Status, Achievement	Security	Worry
Chen et al. (2014)	Monetary Intelligence Scale	Achievement, Respect, Power, and Happiness, Making, Budgeting, Donating Money	Achievement, Respect, Power, and Happiness	Making, Budgeting, Donating Money	
Klontz et al. (2011)	Klontz Money Script Inventory (KMSI)	Money worship, Money status, Money vigilance, Money avoidance	Money worship, Money status	Money vigilance	Money avoidance

The functional aspects of money for each dimension are:

- (i) Dimension 1: money as a symbol of success that meets social or aspirational needs,
- (ii) Dimension 2: money as a store of value, providing financial security and allowing intertemporal consumption smoothing
- (iii) Dimension 3: money as a means of meeting basic needs. Lack of money causes anxiety (intrinsic affect) and distrust (extrinsic affect).

In terms of the Maslow's hierarchy of needs, the third dimension above is related to the most basic needs of food and shelter since not being able to afford these basic needs would cause anxiety and distrust. The second category is related to the second level of Maslow's needs – that is need for safety and security. Finally, the first dimension is related to the third and fourth levels of needs – namely the need for love and the need for self-esteem (Oleson, 2004).

### **3.2.3 Research questions**

The research questions we are interested in are as follows

RQ1: Do parents and their adult children exhibit similar attitudes towards money?

RQ2: Do parents and their adult children exhibit similar attitudes towards risk?

RQ3: Do parents and their adult children exhibit similar preferences with respect to investment / consumption choices?

RQ4: Do money attitudes and financial risk avoidance of parents affect financial risk avoidance of their adult children? Are these effects mediated by the adult child's own money attitudes and financial risk avoidance?

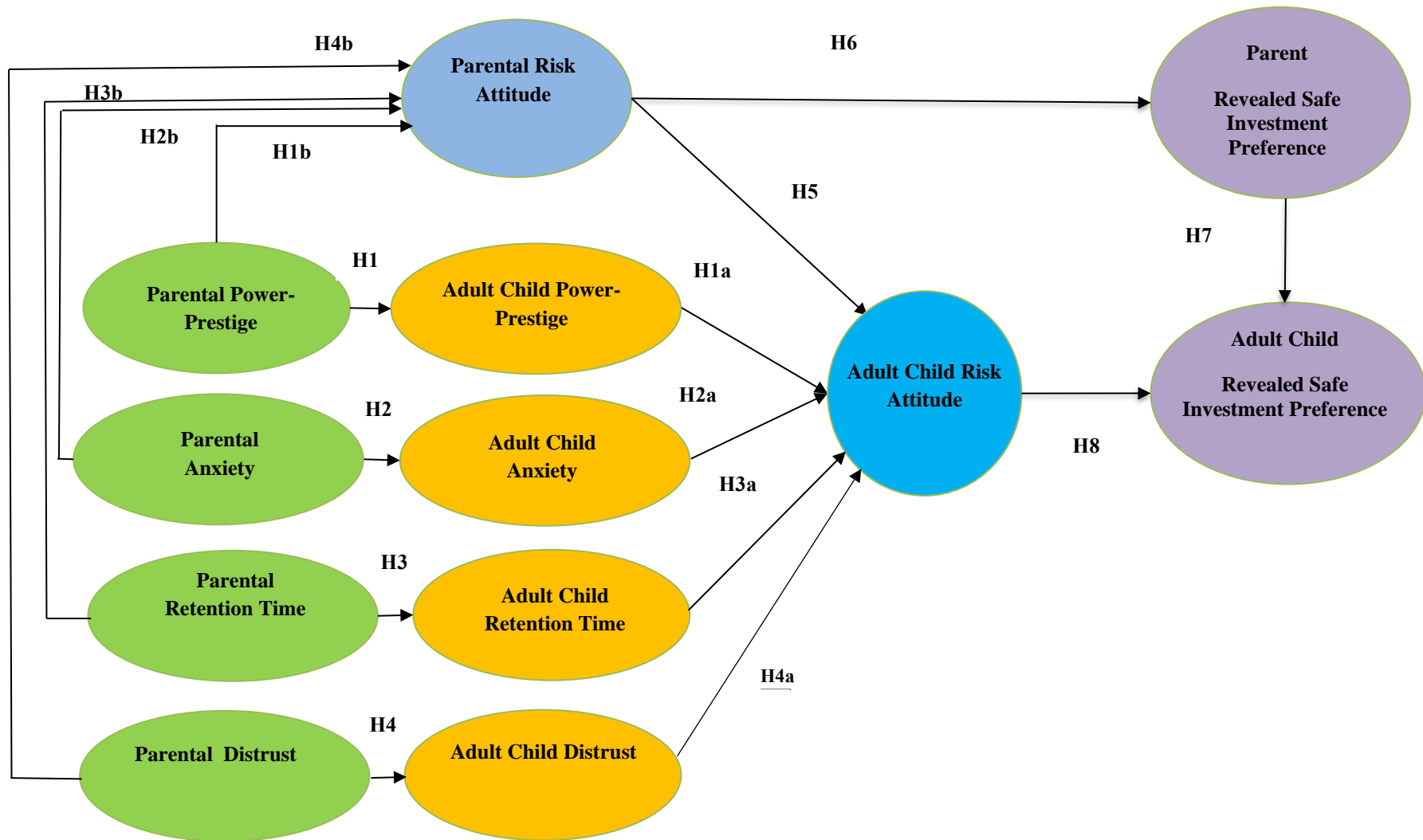
### **3.3 Literature review and proposed hypotheses**

In the following sections, we discuss the extant literature in relation to the main research questions that we pose in this study.

#### **3.3.1 Intergenerational transmission of financial behavior**

Parental financial socialization is influenced by parental values, beliefs, norms, parental financial monitoring, financial discussions, and children passively observing the parents. Hence, parental financial socialization in the family can happen intentionally or unintentionally (Gudmunson & Danes, 2011). [Implicit financial socialization is indirect financial socialization \(e.g. parent modelling, learning by observing parents\).](#) [Explicit financial socialization is the direct financial socialization \(e.g. parent direct teaching, discussions with parents\).](#)

Figure 3.1 Conceptual Model for money attitudes and risk attitudes



We discuss below some studies that have looked at purposive financial socialization through parental discussions about money or experiential learning through the use of monetary allowances. Hira et al. (2013) studied the influence of financial socialization through parents, peers, and media on savings, investments, and investment regularity among 7500 US households. They found that purposive financial socialization through parents had a significant influence on an individual investment orientation and saving behavior. Kim and Chatterjee (2013) found that individuals who experienced monitored spending by parents in childhood engaged in asset ownership, good money management, lesser financial worry in adulthood. Using data from 481 emerging adults, Vosylis and Erentaite (2019) found that direct parental teaching on money management and openness about family finances contributed to better self-control, less impulsive buying, and lower financial anxiety among respondents. Coda Moscarola et al., (2024) used data from Italian households and found that the intergenerational transmission of time preference and savings attitudes were stronger when parents involved their children in financial decision-making processes. In a similar study among Hispanic households, Gill and Bhattacharya (2018) looked at the similarities in several financial attitudes including attitudes towards saving, borrowing, being thrifty, present bias and risk aversion. They found that expressed parental attitudes had a greater impact on children than their actual behavior.

In a study of peer-to-peer (P2P) lending investors in Lithuania, Legenzova and Lecke (2024) found that discussions with parents (explicit financial socialization) in childhood and adolescence positively contributed to investment literacy (investment knowledge, skills, and attitudes) in adulthood to a greater extent and observing parents (implicit financial socialization) resulted in lower investment literacy. Vosylis and Erentaite (2019) also mentioned that very few studies have examined the distal outcomes of financial socialization such as financial behaviors and anxiety. Interestingly, most studies in

previous literature have investigated mechanisms of explicit financial socialization and the effect of these on adult children's financial attitudes and behaviors. Very few studies have studied implicit or anticipatory financial socialization (Lanz, 2020). In addition, most studies on financial socialization have considered only the child's perspective of perceived parental socialization (Utkarsh et al., 2020; Zhao & Zhang, 2020; Jariwala, 2022). Gathering data from both parents and their children about their financial behavior ensures greater accuracy and reduces potential biases due to misperceptions of the parental behavior by the child. For this reason, we discuss the literature that looks at data collected from parent-child dyads.

Some researchers have examined intergenerational transmission of attitudes and behaviors and financial socialization using data of both parent and corresponding child (Waldkirch et al., 2004; Gauly, 2017; Tang, 2017). Gauly (2017) examined the mechanism of intergenerational transmission of attitudes among German parent-child dyads, comparing the roles of genetics, environment, or assortative mating in such transmission, and found all three channels played a significant role in the transmission. Using data from the US-based Panel Study of Income Dynamics (PSID) dataset, Waldkirch et al. (2004) found that parental consumption behavior influences their child's consumption behavior. The authors propose several mechanisms that may lead to similarities in consumption patterns of parents and children including genetic inheritance of ability, the ability of the parent to invest in the child's human capital, formal financial socialization, and implicit transfer of financial attitudes.

Tang (2017) studied intergenerational consistency in financial behavior among parent-child dyads using longitudinal data from the 1979 National Longitudinal Survey Children and Young Adults (NLSCYA) and the 1979 National Longitudinal Survey

(NLSY79). They found that parental financial behavior observed by the child during their adolescence influences their financial behavior as a young adult. Lep et al. (2022) studied 515 student-parent dyads and found that parental saving influenced corresponding student's savings. In a study of behavioral biases that affect financial behavior, Cebeci (2024) studied Istanbul-based university students and their parents. She found empirical evidence of intergenerational transmission of biases such as loss aversion, illusion of control and overconfidence from parents to their children, and transmission of affinity bias from parents to their daughters.

In a collectivistic country like India, there is a high level of intergenerational emotional connection and reliance on the traditional wisdom of one's elders (Verma et al., 2024). Within the context of such strong intergenerational and familial bonds, money attitudes as well as financial risk avoidance and financial choices of parents will impact the corresponding attitudes of their children. Jariwala (2022) investigated the association between financial socialization and financial self-efficacy among Indian youth and found that financial socialization, such as observations and discussions with parents and peers, strongly contributes to financial self-efficacy and financial autonomy. Jariwala also noted that parents are the most significant socialization agents for Indian youth. In a study of US individuals, Boto-García (2022) found that financial socialization in early childhood helps to enhance self-control skills and aids saving habits through ownership of financial products such as insurance and retirement products. Robertson-rose (2020) found that parental advice regarding financial preparedness in adulthood influences adult children's retirement savings as they opt for workplace pension schemes.

Few studies in prior literature have looked at money attitudes and their associations with different financial outcomes (Hayhoe et al., 2012; Durvasula and Lysonski, 2010). Based

on the literature on financial socialization, we formulate the following hypotheses for the association of the money and risk attitudes of parents and their adult children.

Hypothesis H1: Parent's power-prestige<sup>3</sup> is positively associated with child's power-prestige.

Hypothesis H2: Parent's anxiety<sup>4</sup> is positively associated with the child's anxiety.

Hypothesis H3: Parent's distrust<sup>5</sup> is positively associated with the child's distrust.

Hypothesis H4: Parent's retention-time<sup>6</sup> is positively associated with the child's retention-time.

Parents play an important role intentionally or unintentionally in shaping risk attitudes as well. In a recent study, Chang et al. (2023) found that parent's experiencing an earthquake in China affected their children's risk aversion, even if the children had not directly experienced the same. Using a field survey of 2400 Chinese families in 2016, Chen et al. (2023) examined the effects of the 1959–1961 great Chinese famine. They found that trauma due to the experience of famine among Chinese individuals in early childhood influenced the shaping of risk aversion in adulthood. Further, famine-induced risk aversion persisted through intergenerational transmission and social interactions. Brown and Van der Pol (2015) studied parent-child dyads in Australia and found that the time and risk preference among the parent and their corresponding child are significantly associated.

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<sup>3</sup> Power-prestige is the attitude that considers money to be a source of power and prestige. (Yamauchi and Templer, 1982)

<sup>4</sup> Anxiety is the attitude of being anxious about not having enough money (Yamauchi and Templer, 1982)

<sup>5</sup> Distrust is the attitude of not having faith in their own money management skills (Yamauchi and Templer, 1982)

<sup>6</sup> Retention-time is the attitude emphasizing the need for saving for the future (Yamauchi and Templer, 1982)

Hypothesis H5: Parent's risk attitude (risk avoidance) has an association with the child's risk attitude (risk avoidance).

### **3.3.2 Impact of money attitudes on risk attitudes**

Financial prudence shaped by money attitudes influences an individual's decisions that involve risks. Thereby risk attitudes are associated with money attitudes. Money attitudes determine risk attitudes. Using cluster analysis, Keller and Siegrist (2006) categorized 1,569 individual investors in Switzerland based on their money attitudes (attitude toward financial security, attitude toward stock investing, obsession with money, perceived immorality of the stock market, attitude toward gambling, interest in financial matters, attitude toward saving, frankness about finances) into four segments namely safe players, open books, money dummies, and risk-seekers. Sachse et al. (2012) investigated perceived investment risk of German lay investors about different investment products such as bank savings books, equity funds, endowment life insurances, building loan contracts, shares, bond funds and federal treasury notes and they found that 51% of the individuals in their sample preferred investment in bank savings books which is least risky option. They also found that financial literacy influences their perceived investment risk.

A few studies specifically examined money attitudes' influence on investment behavior, especially in terms of the risk profile of their investment portfolio. Using data from 535 US college students, Shih & Ke (2014) studied the impact of money attitude and financial literacy on financial behavior related to the consumption of high-risk (e.g., mutual funds, stocks) and low-risk (e.g., time deposits, government bonds, insurances) financial products. The authors found that consumers with higher levels of retention-planning, achievement-esteem engage in high-risk financial decisions while consumers depicting anxiety toward money engage in low-risk financial decisions. Nadeem et al. (2020)

studied the impact of investor's money attitudes on their stock market participation decisions and also investigated the mediating role of risk attitudes. They found that all money attitudes (money status, money worship, money avoidance, money vigilance) have a significant direct influence on their stock market participation decisions, and risk attitudes partially mediated the relationship.

Loewenstein et al., (2001) have given a framework related to risk-as-feelings hypothesis that outlines the association between anticipated emotions and affective feelings (fear, anxiety, worry) with cognitive evaluations and consequent behaviours during risky situations. Conceptually, risk avoidance and risk aversion do not have same meaning. High risk avoidance results in opting for a safer investment option (i.e. risk aversion). Low risk avoidance emphasizes risk loving behaviour (Nguyen et al., 2018). Risk avoidance has also been termed as an antonym of risk tolerance in previous literature (Sivaramakrishnan and Srivastava, 2019). Prior literature has found that income levels (Chang, 2008), investment return probability (Fetchenhauer and Dunning, 2012), emotions such as anxiety (Maner and Schmidt, 2006), financial education (Nguyen et al., 2018) influences risk avoidance among individuals. Interestingly, previous literature has not considered role of attitudinal aspects such as money attitudes in influencing risk avoidance and consequent risk preferences and thus, there is room for investigation.

Based on the prior literature and insights, we propose the following hypotheses for the impact of money attitudes on risk attitudes of young adults as well as their parents:

Hypothesis H1a: Adult child's power-prestige has an association with their risk attitude.

Hypothesis H2a: Adult child's anxiety has an association with risk attitude.

Hypothesis H3a: Adult child's distrust has an association with risk attitude.

Hypothesis H4a: Adult child's retention-time has an association with their risk attitude.

Hypothesis H1b: Parent's power-prestige has an association with the parent's risk attitude.

Hypothesis H2b: Parent's anxiety has an association with the parent's risk attitude.

Hypothesis H3b: Parent's distrust has an association with the parent's risk attitude.

Hypothesis H4b: Parent's retention-time has an association with the parent's risk attitude.

### **3.3.3 Risk Attitude and actual investment behaviour**

The investment preferences are a function of risk attitudes. Prior literature has investigated role of attitude towards risk in shaping actual investment preferences (Wärneryd 1996, Wood and Zaichowsky, 2004; Lim et al., 2018; Charness et al., 2020, Mushafiq et al., 2023).

Kalra Sahi et al. (2012) found that psychographic variables (attitude towards financial risk) enhance the explanation of investment preferences. They further observed that psychographic variables (attitude towards financial risk) are the most important determinant in case of high-risk financial products, and the demographic and socio-economic variables are the most important determinants for less risky ones. Using Australian online survey data of 364 client's risk profile, Nguyen et al (2019) found in their study that risk tolerance has a direct and also an indirect impact on risky-asset allocation (Australian shares) decisions with risk perception being a mediator. Arora and Marwaha (2014) analysed the perceptions of individual investors in India towards investing in stocks in comparison to fixed deposits and found that the most influencing variable for investing in stocks is promising high returns and for fixed deposits is stability of income. Using Swedish data of adoptees and their biological parents, Black et al. (2017) examined the role of environment and genetics in influencing the behaviour of an individual. They found that environment has a stronger role in shaping investment

behaviour. Sivaramakrishnan and Srivastava (2019) studied the role of risk avoidance and financial well-being in stock market participation among Indian investors and found that risk avoidance and financial well-being impact intention to invest in equity products negatively. Niu et al (2019) studied the impact of corporate fraud on household investment choices in China and found that those households which have experienced corporate frauds in their life have higher intention to invest in real estate and have low affinity to invest less in stocks or to purchase private insurance.

Based on the prior literature about association of risk attitudes and actual risk investment behaviour, we propose following hypotheses.

Hypothesis H6: Parent's risk attitude (risk avoidance) has an association with the parent's investment risk preference.

Hypothesis H7: Adult Child's risk attitude (risk avoidance) has an association with adult child's investment risk preference.

Hypothesis H8: Parent's risk investment preference (risk avoidance) has an association with child's risk investment preference.

### **3.4 Data and methodology**

This section describes the sampling procedure, data used, methodology used.

#### **3.4.1 Sampling and data collection**

The survey link was posted in WhatsApp groups, LinkedIn profile, Facebook groups. The survey questionnaire was also mailed through college intranet. Convenience sampling method as well as snowball sampling techniques were used to collect data from earning adult child or adult child with prior work experience and their corresponding earning or

retired parent. The data was collected in three waves. Wave 1 data was collected in 2020, wave 2 in 2022 and wave 3 in 2024. The data collections spanned from 2 to 4 months in every wave. A unique identification number for each parent child duo allowed us to pair up the data in later modeling. The overall sample consisted of 816 respondents, but some of the responses were from only one member of a family. After cleaning the data, we had information for 502 respondents with 251 unique parent-child pairs<sup>7</sup>.

### 3.4.2 Survey instrument

We used the Money Attitude Scale (Yamauchi and Templer, 1982) which is more reliable and a previously validated scale adapted in prior literature (Medina et al, 1996; Baker & Hagerdon, 2008; Pereira and Coelho, 2020; Phau and Woo, 2008) to measure attitudes of respondents towards money. Khare (2014) had used the modified version of MAS scale to study money attitudes in the Indian context and found acceptable reliability measures. Modified version of MAS scale has also been adapted by Roberts and Sepulveda (1999). The respondent's self-reported subjective risk attitude (risk avoidance) was measured using three items. The final questionnaire had 59 questions that were shared using a Google form. Sociodemographic characteristics such as age, gender, income, marital status of parent and child was also measured in the google form. Age acted as a moderator for associations leading to child risk avoidance attitude. The gender of child being male was measured as 1 else it took the input value 0. The income of child being more than 25,000 rupees was considered as 1 else it took the input value as 0. Below Rs 25,000 has been considered as a reference category. Similarly, marital status of child being single was considered 1 and else it took the value as 0.

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<sup>7</sup> The original conceptual models had 5 arrows leading to the construct "risk avoidance attitude". Given this, the minimum sample size required was 70 (Wong, 2013). Since our sample consists of 251 parent-child pairs, it is considered to be adequate for the proposed analysis.

### 3.4.3 Analytic procedure

We divided the overall sample into two subgroups for parents and children, and computed descriptive statistics for each subgroup. Next, we matched up each child with their parents and created a combined dataset with 251 observations consisting of unique parent-child dyads. We analyzed the investment choices among the dyads using Borda count method. We also calculated risk avoidance index (risk investment preference) for parent and child sub-group by subtracting their ranking of investment in riskier option(stock) from the safest option (bank fixed deposit). Further, confirmatory factor analysis was performed on the data to identify the latent constructs, viz. the components of money attitudes. We then built a structural equation model to identify association of money attitudes and child's risk attitudes. The entire analysis was conducted using the SPSS software package for the confirmatory factor analysis and the SmartPLS 4.0 package for the path models. . [Partial least square structural equation modeling \(PLS SEM\) has been used as it works fine with small sample size and considers non-normal data.](#) We present the results of our analysis in the following section.

## 3.5 Results

The results of the study are described in following sub-sections.

### 3.5.1 Descriptive statistics

The socioeconomic and demographic characteristics of the sample are given in Table 3.2. Males predominantly constitute the parent and child subgroups; their percentage shares are 87.25% and 58.57%, respectively. The mean age in the parent subgroup is 56 years, and in the child subgroup, it is 25 years. Around 50.60 % of parents have a bachelor's degree, 27.49 % have a master's degree, and few parents even have a doctorate level of

education. Regarding the child subgroup, the majority have a master's level of education. From an income perspective, 27.09% of the parents earn more than 1 lakh rupees monthly. Around one-third earn an income of 50,000 to 1 lakh rupees per month. 41.43 % of adult children have a monthly income of Rs. 25,000 to 50,000.

Half of the parent subgroup are working professionals receiving a salary. A few of them have retired from work. The rest of them are self-employed. The child subgroup mainly comprises Ph.D. and master's students of IIT Kanpur who are receiving a stipend and managing their finances away from family, with a percentage share of 64.94%. [The students belonged to different parts of the country.](#) In the parent sub-group, 41.83% of the parents have a family with independent children. In the child sub-group, around 93.23% of them are single. 82.07% of parents have self-reported high financial satisfaction, and 66.93% of adult children have self-reported high financial satisfaction. Table 3.2 gives a detailed sociodemographic breakdown of the sample.

**Table 3.2. Socio-economic and demographic characteristics of respondents**

Socio-economic / demographic	Categories	Parent group	% age parent	Child group	% age child
Age	Average age	56.1		25.9	
	Standard deviation	5.3		2.9	
Gender	Female	32	12.75%	104	41.43%
	Male	219	87.25%	147	58.57%
Education	Non matriculate	2	0.80%	0	0.00%
	Class 12 pass	34	13.55%	0	0.00%
	Bachelor's Degree	127	50.60%	76	30.28%
	Master's Degree	69	27.49%	146	58.17%
	Doctorate	19	7.57%	29	11.55%
Income	Below Rs. 25,000 / month	14	5.58%	58	23.11%
	Rs. 25,000 – Rs. 50,000 / month	52	20.72%	104	41.43%
	Rs. 50,000 - 1 Lakh / month	85	33.86%	45	17.93%
	More than Rs. 1 Lakh / month	68	27.09%	19	7.57%
	Would rather not say	32	12.75%	25	9.96%
Employment	Student	0	0.00%	163	64.94%
	Housewife (Homemaker)	0	0.00%	0	0.00%
	Employed (salaried)	130	51.79%	65	25.90%
	Self Employed / Freelancer/Owns a Business	68	27.09%	12	4.78%
	Looking for Work	2	0.80%	11	4.38%
	Retired	51	20.32%	0	0.00%
Family Status	Single	0	0.00%	234	93.23%
	Married without children	0	0.00%	9	3.59%
	Family dependent children	146	58.17%	8	3.19%
	Family independent children	105	41.83%	0	0.00%
Vehicle Ownership	Two-Wheeler	49	19.52%	69	27.49%
	Four-Wheeler	63	25.10%	22	8.76%
	Both	111	44.22%	61	24.30%
	No	28	11.16%	39	15.54%
House Ownership	Yes	235	93.63%	145	57.77%
	No	16	6.37%	106	42.23%

### 3.5.2 Measurement model

Results of confirmatory factor analysis is depicted in Table 3.3. The four factors that emerged are Power-prestige, Retention-time, Distrust, Anxiety. For power-prestige, nine items loaded with factor loadings ranging from 0.646 to 0.767. For retention-time, seven

items loaded with factor loadings ranging from 0.681 to 0.810. For distrust, six items loaded and for anxiety, three items loaded. The Cronbach alpha values are high for power-prestige, retention-time, distrust indicating high internal consistency. The Cronbach alpha value was lower for anxiety comparatively but the composite reliability is above 0.7 depicting high internal consistency. For risk attitude (risk avoidance), Table 3.3 gives the factor loadings and the measures for construct validity for the Risk attitude (Risk Avoidance) construct. Three items loaded with factor loadings ranging from 0.697 to 0.790. Cronbach alpha is 0.576 which is slightly low. However, the composite reliability is 0.788 which is above the acceptable threshold of 0.70 (Hair et al., 2019).

The variance inflation factor (VIF) values were checked to eliminate the presence of multicollinearity in data. The VIF values were found to be below 5. The outer loadings were examined and loadings above 0.50 were included in the study. The internal consistency reliability was checked using composite reliability values. The composite reliability ( $\rho_c$ ) for entire sample were high indicating high internal consistency reliability and the values are given in Table 3.3 (Hair et al, 2019). The convergent validity of individual constructs for parent and child subgroup was studied during model formation and values for most of the constructs were above 0.50. The convergent validity of all constructs was adequate as composite reliability ( $\rho_c$ ) measures for all constructs were high (Fornell and Larcker, 1981). The discriminant validity was also under acceptable limits.

**Table 3.3. Measurement model- Factor loading matrix for money attitude dimensions and risk attitude (risk avoidance) for the entire sample**

	<b>Power- prestige</b>	<b>Retentio n-time</b>	<b>Distrust</b>	<b>Anxiety</b>	<b>Risk attitude</b>
I must admit that I purchase things because I know they will impress others.	0.767				
In all honesty, I own nice things in order to impress others	0.757				
People I know tell me that I place too much emphasis on the amount of money a person has as a sign of his success.	0.757				
I must admit that I sometimes boast about how much money make.	0.735				
Although I should judge the success of people by their deeds, I am more influenced by the amount of money they have.	0.729				
I use money to influence other people to do things for me.	0.702				
I behave as if money were the ultimate symbol of success.	0.696				
I seem to find that I show more respect to people with money than I have.	0.694				
I often try to find out if other people make more money than I do.	0.646				
I do financial planning for the future		0.810			
I save now to prepare for my old age.		0.801			
I do financial planning for the future		0.780			
I follow a careful financial budget.		0.780			
I keep track of my money.		0.745			
I am very prudent with money		0.732			
I have money available in the event of another economic depression.		0.681			
After buying something, I wonder if I could have gotten the same for less elsewhere.			0.806		
It bothers me when I discover I could have gotten something for less elsewhere.			0.796		
When I buy something, I complain about the price I paid.			0.750		
I argue or complain about the cost of things I buy.			0.710		
When I make a major purchase, I have the suspicion that I have been taken advantage of.			0.613		
I automatically say,"I can't afford it,"whether I can or not.			0.586		
I show signs of nervousness when I don't have enough money.				0.789	
I show worrisome behavior when it comes to money.				0.756	
I worry that I will not be financially secure.				0.687	
It is better to be safe than sorry in financial matters.					0.790
When it comes to making financial investments, I prefer safe options to risky ventures.					0.725
I like to bet on gambles since you can only win big if you take risks. (reverse)					-0.697
<b>Cronbach's Alpha</b>	0.892	0.881	0.827	0.771	0.576
<b>Composite reliability (rho_c)</b>	0.907	0.906	0.861	0.789	0.788
<b>AVE</b>	0.520	0.581	0.512	0.555	0.554

### 3.5.3 Models for association of money attitudes and risk attitudes across parent – child dyads

The first research question in this study was whether parental money attitudes are similar to their adult child’s money attitudes. We performed correlation analysis of the money attitudes of each parent-child pair. Our second research question was whether parental risk attitudes are similar to adult child’s risk attitudes. We also attempted correlation analysis for risk attitudes to investigate our second research question. The results are presented in Table 3.4.

**Table 3.4. Correlation between parental money attitudes and child’s attitudes**

	<b>Parental power-prestige &amp; child power-prestige</b>	<b>Parental retention-time &amp; child retention-time</b>	<b>Parental distrust &amp; child distrust</b>	<b>Parental anxiety &amp; child anxiety</b>	<b>Parental risk attitude &amp; child risk attitude</b>
Correlation Coefficient	0.388	0.229	0.311	0.316	0.265
Standard Deviation	0.061	0.054	0.054	0.051	0.075
T Statistics	6.326	4.215	5.796	6.216	3.526
P Values	0.000	0.000	0.000	0.000	0.000
R Square	0.150	0.052	0.096	0.100	0.070

For all four dimensions, parental money attitude had a highly statistically significant and relatively large positive association with the corresponding money attitudes of their child with coefficients ranging in magnitude from 0.229 to 0.388. Given our results, we accept the hypotheses H1, H2, H3, and H4. The magnitude is highest for the power-prestige attitude, followed by anxiety, retention-time, and distrust. Thus, we see that parental money attitudes are associated with their adult children’s corresponding money attitudes. However, associations between parent-child attitudes related to higher levels of emotional

engagement seems to be higher; whether the emotion is positive (Power-prestige) or negative (Anxiety). Attitudes that require greater level of cognition i.e. Retention-time and Distrust, such parental attitudes have less association with child's attitudes correspondingly. Model 5 looks at risk attitude (risk avoidance) among parent and child and found that parental risk avoidance attitude and children risk avoidance attitude are positively correlated. Parent risk avoidance attitudes affect child risk avoidance attitudes. In a nutshell, we find associations among parent and child risk avoidance attitudes.

### **3.5.4 Revealed preferences related to spending or investing of a sudden windfall**

The third research question is to study whether investment choices of young adults are similar to their parent's investment choices. In the survey, the participants were asked to rank different investment / expenditure choices in the event of a sudden windfall (winning Rs. 50 lakhs in a lottery). We use the Borda count method (Saari, 1985) to determine the most popular investment choices within the parent and child sub-groups. The total points received by a particular investment instrument is summed up as  $BC_k = \sum_{i=1}^n (8 - Rank_{ik})$  where  $Rank_i =$  rank assigned by the  $i^{th}$  individual to the  $k^{th}$  instrument. The group consists of  $n$  individuals.

The results of Borda's count are mentioned in Table 3.5. We observe from Table 3.5 that for both the parent group as well as the child group, the first two investment choices were fixed deposits and real estate (though the order flipped between the parental and child group). The next two choices were stocks and real estate (though the order flipped between the parental and child group). The last choices were related to consumption, namely buying a car, going on a vacation or giving to charity. These choices reflect a

higher propensity for saving and greater risk avoidance within the parental cohort as well as the adult child cohorts.

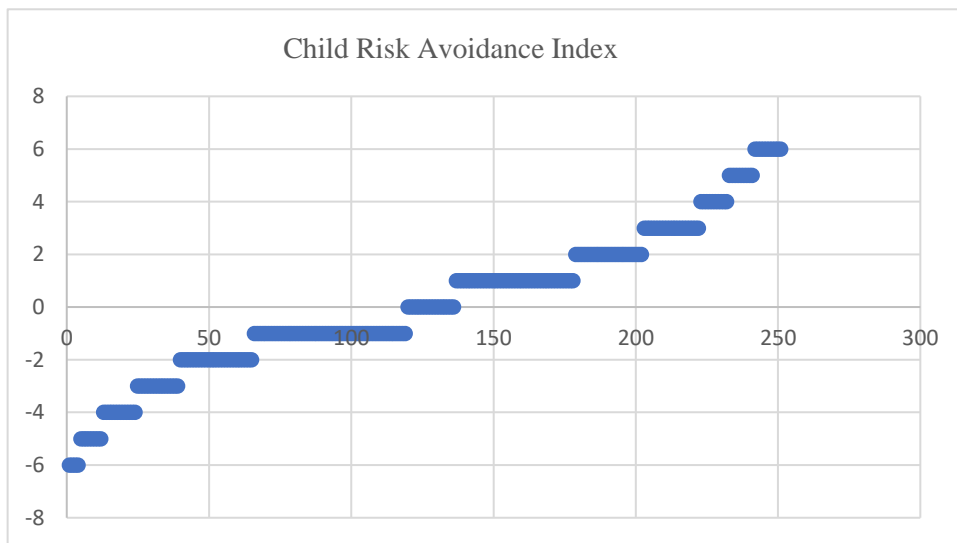
**Table 3.5. Borda’s count for choice preferences**

<b>Investment preference</b>	<b>BORDA count Parent group</b>	<b>BORDA count Child group</b>	<b>Ranking of BORDA count (Parent group)</b>	<b>Ranking of BORDA count (Child group)</b>
<b>Fixed Deposits</b>	1336	1223	1	2
<b>Real Estate</b>	1262	1226	2	1
<b>Education</b>	1171	1107	3	4
<b>Stock</b>	1061	1191	4	3
<b>Society</b>	944	836	5	7
<b>Car</b>	927	889	6	6
<b>Vacations</b>	835	953	7	5

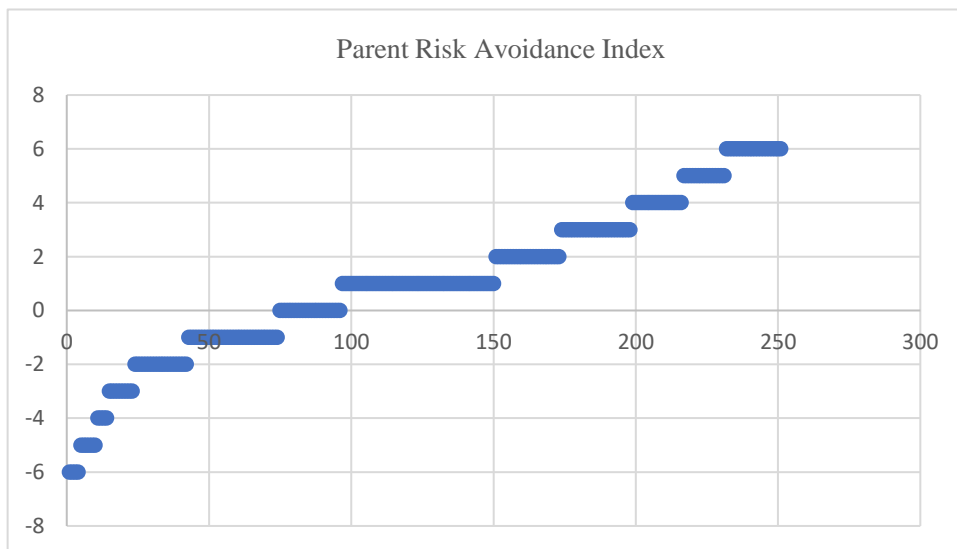
### **3.5.5 Comparison of Parent and Child Risk Avoidance Index**

On calculating parent and child risk avoidance index by taking difference of investment preference ranking of safest option i.e. Bank fixed deposits and comparatively riskier option i.e Stocks, we find that parent subgroup avoids risky options more than the child subgroup. Figure 3.2 depicts the Child risk avoidance index and Figure 3.3 depicts Parent risk avoidance index. The correlation between the parent risk avoidance index and child risk avoidance index is 0.22, depicting small positive correlation in investment preferences of bank fixed deposit and stocks.

**Figure 3.2: Child Risk Avoidance Index**



**Figure 3.3: Parent Risk Avoidance Index**



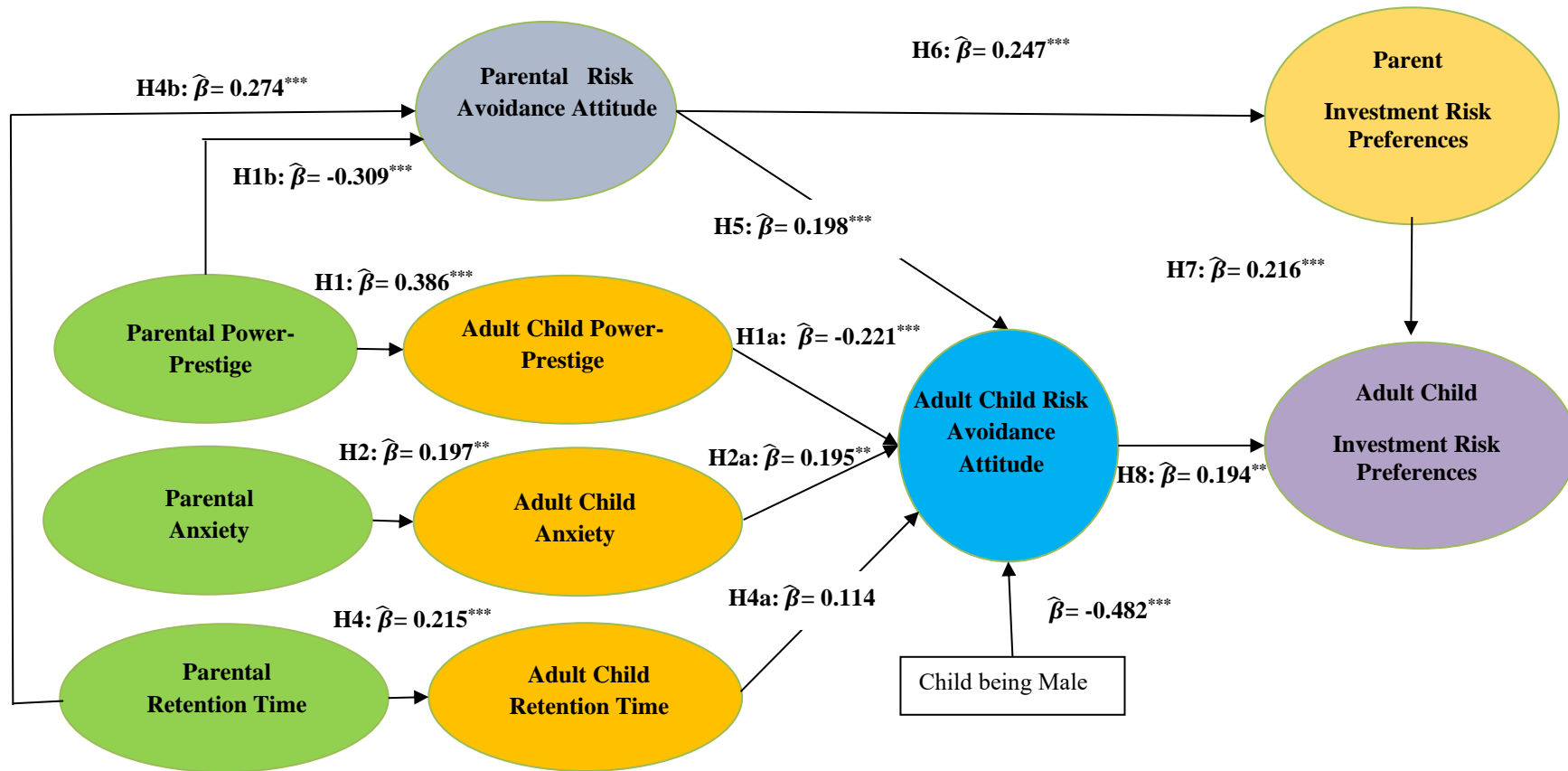
### 3.5.6 Structural model for risk attitude of child

Our fourth research question was related to understanding how parent's money attitudes, child's money attitudes, and parent's risk attitude affects the child's risk attitude. The conceptual model is given in Figure 3.1. Several structural equation models were

estimated, with the four money attitude constructs of power-prestige, distrust, retention-time and anxiety as well as parental risk being considered as antecedent factors that might affect the child's risk attitude. Among the socio-economic or demographic factors namely child gender being male have a statistically significant negative relationship with child risk attitude. Other insignificant factors are dropped from the model to ensure a parsimonious and better fitting model. However, we have summarized the results of hypothesis tests for each of the different indirect and direct relationships between the different constructs. This has been provided in Table 3.6 below.

The final model, retaining only those factors that were found to have a statistically significant effect on the child's (young adult's) risk attitude has been depicted in Figure 3.4. The corresponding standardized path coefficients associated p-values and model fit statistics are given in Table 3.6. Parent anxiety has a positive association with child anxiety. Child anxiety has a positive direct association with child risk attitude. Parent power-prestige has a positive association with child power-prestige. Child power-prestige has a negative association with child risk attitude. Parent power-prestige has a negative association with parent risk attitude. Parent retention-time has a positive association with child retention money attitude. Child retention-time has a positive association with child risk attitude. Parent retention-time has a positive association with parent risk attitude positively. Parent risk attitude has a significant association with child risk attitude. Thus, we find evidence for accepting Hypothesis H1, H2, H4, H5, H6, H7, H8, H1b, H4b, H1a and H2a. SRMR and adjusted R-square of the fitted model for risk attitude was 0.080 and 0.204 respectively, indicating moderate levels of overall fit of the model (Hair et al., 2019). The cross validated predictive ability test (CVPAT) values depicted that the overall model has high predictive validity (Sharma et al., 2022).

Figure 3.4. Fitted model for association of money, risk attitudes and risk investment preferences



**Note:** The paths for which the fitted coefficients were statistically significant have been denoted by solid arrows, while those with beta coefficients that were not statistically significant have been denoted by dotted arrows. The paths that were not statistically significant were retained in the final model because of their overall contribution to the fit of the model.

\*\*\*  $p \leq 0.001$ , \*\*  $p \leq 0.01$

**Table 3.6. SEM model coefficients for antecedents of risk attitude of the young adult**

	<b>Beta Coefficients</b>	<b>Std dev</b>	<b>T Statistics</b>	<b>P values</b>
<b>C_Anxiety -&gt; C_Risk Avoidance Attitude</b>	0.195	0.069	2.825	0.005
<b>C_Male -&gt; C_Risk Avoidance Attitude</b>	-0.486	0.110	4.433	0.000
<b>C_Power -&gt; C_Risk Avoidance Attitude</b>	-0.226	0.067	3.298	0.001
<b>C_Retention -&gt; C_Risk Avoidance Attitude</b>	0.12	0.065	1.773	0.076
<b>C_Risk Avoidance Attitude -&gt; Child Inv Risk Pref</b>	0.195	0.063	3.055	0.002
<b>P_Anxiety -&gt; C_Anxiety</b>	0.211	0.070	2.820	0.005
<b>P_Power -&gt; C_Power</b>	0.395	0.066	5.882	0.000
<b>P_Power -&gt; P_Risk Avoidance Attitude</b>	-0.317	0.072	4.297	0.000
<b>P_Retention -&gt; C_Retention</b>	0.229	0.064	3.366	0.001
<b>P_Retention -&gt; P_Risk Avoidance Attitude</b>	0.279	0.073	3.764	0.000
<b>P_Risk Avoidance Attitude-&gt; C_Risk Avoidance Attitude</b>	0.204	0.061	3.294	0.001
<b>P_Risk Avoidance Att-&gt; Parent Inv Risk Pref</b>	0.251	0.055	4.491	0.000
<b>Parent Inv Risk Pref -&gt; Child Inv Risk Pref</b>	0.217	0.065	3.301	0.001
		<b>R-square</b>	<b>R-square adjusted</b>	
<b>C_Risk Avoidance Attitude</b>		0.220	0.204	
<b>C_Anxiety</b>		0.039	0.035	
<b>C_Power</b>		0.149	0.146	
<b>C_Retention</b>		0.046	0.042	
<b>Child Inv Risk Pref</b>		0.087	0.080	
<b>P_Risk Avoidance Attitude</b>		0.193	0.186	
<b>Parent Inv Risk Pref</b>		0.061	0.057	
		<b>Saturated model</b>	<b>Estimated model</b>	
<b>SRMR</b>		0.067	0.080	
<b>Chi-square</b>		2329.871	2506.994	
<b>Difference of Losses of overall PLS Model with Benchmark Models</b>			<b>p-value</b>	
<b>CVPAT<sup>benchmark_IA</sup></b>		-0.096	0.001	
<b>CVPAT<sup>benchmark_LM</sup></b>		-0.191	0.000	

Note: In the first column of the table, C stands for the adult child, and P stands for their parent

## 3.6 Conclusions, Implications and Limitations

### 3.6.1 Conclusions

Our aim was to understand the extent to which a young adult's money attitudes are shaped by their parent's attitude and whether this relationship associated with their risk attitude and consequent risk preferences.

Most studies on financial socialization have used cross-sectional data from either the parent or the child (Zhao and Zhang, 2020; Pak et al., 2023; Damian et al., 2020) and have concentrated on explicit financial socialization. Money attitudes are based on fundamental belief systems about money which may be transmitted implicitly through observation and shared experiences. In cross-sectional studies with young adult participants, the respondent-based answers on their own memories of the discussions they had with their parents about money, or the pocket money they received. Data collected independently and simultaneously from the parent and their adult child gives us first hand and accurate measures of their money attitudes. For this reason, we administered the same questionnaire to 251 parent-child dyads.

Confirmatory factor analysis of the responses yielded four dimensions of money attitudes, viz. power-prestige, distrust, anxiety, and retention-time. Path models showed that all four parental money attitudes had a significant and positive association with the child's corresponding money attitude. The risk attitudes of parents showed a significant positive correlation with child risk attitudes. We found that parental anxiety had an indirect positive association with child's risk attitude, mediated by the child's anxiety. The relationship between parental power-prestige and a child's risk attitude was mediated by the child's power-prestige. Parent retention-time and parent power-prestige had a positive direct association with parent risk attitude.

Our findings are similar to those of some other similar studies. Shanmugam et al. (2023) noted a positive significant association between financial attitudes and risk propensity. Rolison (2023) studied the psychological drivers of self-reported risk preference and found that analytic thinking guided their risk preferences. Zaleskiewicz (2001) found that instrumental risk taking (for investment risk preferences) is driven by personality traits connected with orientation toward the future, the tendency to think rationally, impulsivity, and sensation seeking.

We also found that parent financial risk avoidance attitude has a significant positive direct association with child financial risk avoidance attitude. This finding aligns with prior literature as well. Dohmen et al. (2006) and De Paola (2013) found strong, significant similarities in parent and child risk and trust attitudes. De Paola (2013) noted that children whose fathers chose entrepreneurship as a career depicted similar risk-loving behavior, and children whose fathers were employed in a government setup depicted risk-averse behavior. Wolff (2020) studied the intergenerational transmission of overall risk attitudes among parent-child dyads of in Burkina Faso and found that parent risk attitudes are positively correlated with children's risk attitudes. As far as the magnitude of the positive correlation of risk attitudes is concerned, the authors noted that the correlation is high for risk in driving skills, then for general risk, followed by risk in financial decisions. In a study of worker-parent pairs from China and Korea, Hong et al (2024) found that intergenerational transmission of risk preferences is prominent in Chinese sample due to high parental involvement and financial parenting and for Korean sample, intergenerational transmission from parents to offsprings occurs due to more demanding nature of parents.

Further, the parent risk avoidance attitude had a positive significant association with parent risk investment preference. The parent risk investment preference has a direct

positive significant association with child risk investment preference. The interpretation is that parent with high-risk avoidance prefer safe investment option i.e fixed deposits. The child risk avoidance also has a direct positive significant association with child's actual risk investment preference. So, an adult child also with high-risk avoidance will prefer a safe investment option. Further, the relationship between risk attitude and actual investment behavior is significant positive among both parent and child. This is in accordance with previous research done by Mushafiq et al (2023). Mushafiq et al (2023) found that risk aversion has a negative association with investment choices and other variables (cognitive abilities, risky investment intentions, subjective financial literacy and objective financial literacy) have a positive association with investment choices among individuals from Pakistan. Sivaramakrishnan and Srivastava (2019) also found that risk avoidance obstructs intention to invest in equity products. Lim et al (2018) studied the mediating role of risk perception, risk attitude along with financial knowledge in influencing financial behavioral intention to invest among Malaysians and found that risk perception and attitude have a significant mediating role in influencing the association between financial knowledge and financial behavioral intention to invest.

Sociodemographic factors such as the child's gender being male had a negative association with financial risk avoidance attitude. The interpretation is that the male adult child depicts low financial risk avoidance attitude. i.e they are risk loving in nature. The results are aligned with prior research. De Paola (2013) studied the determinants of risk attitude and the role of intergenerational transmission among Italian students and found that women are more risk-averse than men. Wolff (2020) found that the gender of parent and child affects the intergenerational transmission of risk attitudes. Wolff noted that the correlation of risk attitudes is higher for female children than for male children.

### 3.6.2 Theoretical and practical implications

The contributions of this study are two-fold. First, we show that all dimensions of parental money attitudes are important determinants of the corresponding money attitudes of young adults, and this has an impact on the subsequent risk avoidance of young adults. Second, we use a methodology of including parent-child dyads in our sample, which allows us to collect accurate self-reported money attitudes and specify models for risk attitude. One of the possible implications of this study for policymaking is that financial literacy education targeted at parents may have an overall beneficial effect for parents as well as their children. In addition to financial education in schools, adult financial literacy programs may reinforce positive financial behaviors.

Policymakers should consider introducing financial literacy courses along with parental involvement as they will be more effective. Tang (2017) has also emphasized in their study that parental financial socialization is important. The financial industry should build new financial products for today's young consumers so that parents are involved. New financial applications can be launched that help young consumers budget and save money. These apps can also provide access to the corresponding parents to understand their children's attitudes towards money. [The risk investment preferences can give ample returns if done strategically. The returns can provide ample finances and thereby aid financial stability.](#)

### 3.6.3 Limitations

Limitations of the study include the fact that the sample of respondents was chosen via convenience and snowball sampling. Thus, our results are indicative but may not be generalizable. Further, the scope of this study was limited to money attitudes, and we did

not include other factors such as income security and exposure to formal financial literacy programs as predictors of financial risk avoidance attitude.

# **Chapter 4: Intergenerational Transmission of Money Attitudes and Financial Wellbeing: Evidence from Parent-Child Dyads**

## **4.1 Introduction**

Money is one of the most important artifacts of modern society. The primary instrumental function of money is economic; it provides a measure of value, enables transactions across different categories of goods and services, and acts as a fungible store of wealth (Ostroy and Starr, 1990). However, money also carries a symbolic meaning since it signals individual achievement and societal status, which results in money being valued for its own sake (Rose and Orr, 2007). The instrumental and symbolic value attached to money by an individual influence their attitudes towards money. Money attitudes are key psychological drivers of responsible financial behaviors such as saving and budgeting (Jorgensen et al., 2017) as well as maladaptive financial behaviors such as compulsive buying (Roberts and Jones, 2001). The impact of money attitudes on materialism, financial capability, financial literacy and financial wellbeing of young adults has been explored by several authors (Castro-González et al, 2020; Sabri et al., 2020; Gasiorowska, 2015). Sessini and Lozza (2023) provide a comprehensive review of the literature on money attitudes and suggest the need to understand the key social, cultural, economic and historical antecedents of money attitudes in their proposed agenda for future research.

The formation of specific attitudes towards money begins during early childhood through explicit or implicit parental financial socialization (Gudmunson and Danes, 2011). Parents are one of the key socialization agents that shape their children's behavior and values in many spheres of life, including financial decisions. Most of the extant literature

looks at explicit financial socialization (Drever, 2015; LeBaron and Kelley, 2021). Implicit financial socialization occurs when children learn behaviors through observing their parents. Parents who spend beyond their means and do not have savings fail to teach their children financial discipline. Parents who are overly thrifty and anxious about money matters may also impart corresponding values. There are no extant studies that explore the role of parental money attitudes in shaping their children's attitudes empirically, and the subsequent effect of such intergenerational transfer on child's financial wellbeing. This research gap motivates this study.

Indian culture is based on collectivistic values, characterized by strong familial bonds and vertical hierarchies within families (Sinha et al., 2001). In such a cultural milieu, the immediate family plays a significant and crucial role in the decisions of individuals well into their adulthood (Raj and Raval, 2013). We attempt to explore the extent of intergenerational transmission of parental money attitudes among young adults in India and whether this is in turn linked to the financial wellbeing of young adults. The research objective is to investigate the intergenerational transmission of money attitudes and its association with financial well-being. We are interested in the following research questions:

RQ1: Do parents and their adult children exhibit similar attitudes towards money?

RQ2: Are parents' money attitudes associated with the financial well-being of adult children? Are these associations mediated by the adult child's own money attitudes?

To answer these questions, we collect primary data from 251 parent-child dyads using a questionnaire which incorporated scales for money attitudes as well as financial wellbeing. We find that among four money attitude dimensions (namely power-prestige, distrust, anxiety, retention-time), parental power-prestige and distrust are associated

indirectly with a child's financial well-being. The association of parental power-prestige and distrust with a child's financial well-being is mediated in two stages, first stage being the child's corresponding money attitudes, and second stage being the relation between these and child's anxiety. Child's anxiety has a direct negative association with a child's financial well-being. This chapter focuses on financial socialization of money attitudes and its association with financial wellbeing. It is related to the previous chapter as this chapter also discusses financial socialization of money attitudes. The first chapter focuses on financial attitude (i.e. risk avoidance attitude) and financial behaviour (i.e. risk investment preferences). The second chapter focuses on financial well-being. This study provides empirical evidence for intergenerational transfer of money attitudes and implicit parental financial socialization. A methodological gap that this study fills is the use of data from both parents and their adult children within the same family and modeling it as dyadic units. This removes single-informant bias that may result from using data solely from adult children based on their perceptions of parental money attitudes (Zupančič et al., 2023).

## 4.2 Theoretical Background

Financial wellbeing is a cornerstone for the overall wellbeing of individuals (Zemtsov and Osipova, 2016). Several definitions of financial wellbeing have been proposed in the literature (Brüggen et al., 2017, Kempson and Poppe, 2018, Salignac et al., 2020). Researchers have converged on three distinct aspects that contribute to an individual's subjective financial well-being – (i) satisfaction with the present as well as the future economic state; (ii) perceived ability to meet their needs and wants; and (iii) resilience in the event of a sudden financial shock such as loss of employment or a health emergency (García-Mata and Zerón-Félix, 2022). We discuss below some of the theoretical

underpinnings of the relationship between attitudes, behavior and wellbeing of individuals, as well as the theories underlying intergenerational transmission of attitudes, viz. the family financial socialization theory. The empirical literature review and proposed hypotheses follow after theoretical literature.

#### **4.2.1 Theory related to relationship between money attitudes and financial wellbeing**

Attitudes are stable feelings about an object of reference that are encoded into our subconscious minds (Droba, 1933). Ostrom (1969) defines attitude as

*“a learned predisposition to respond in a consistent evaluative manner to an object or class of objects”* (Ostrom, 1969, pg. 12)

Several authors have made a distinction among three different components of attitude, viz. the cognitive, affective and behavioral aspects (Ostrom, 1969; Breckler, 1984). In the financial domain, an individual’s money attitudes and risk attitudes are guided by their beliefs about money and risk (Prince, 1993), and these beliefs are in turn found to be a function of their anticipated emotions (Perugini and Bagozzi, 2001). Money attitudes are multi-dimensional in nature. Yamauchi and Templer (1982) proposed a “Money Attitude Scale” that captured four distinct attitudes towards money. The first two dimensions, power-prestige and retention-time were related to the perceived role of money (status enhancement vs. security enhancement respectively). The other two dimensions, anxiety and distrust are related to negative emotions. Anxiety is caused by an individual’s worry that they will not have enough money; and distrust captures their lack of faith in their own ability to manage finances correctly and may lead to lower levels of financial capability (Xiao et al., 2022). Sesini and Lozza, (2023) provide a comprehensive review of the extant literature on money attitudes, its antecedents and outcomes. The three key

dimensions of money attitudes that emerge from a review of the extant literature are (i) social or aspirational function of money, (ii) financial security and financial prudence, and (iii) financial anxiety which is related to lack of financial self-efficacy.

Previous researchers have introduced conceptual frameworks outlining the association between financial attitudes and financial wellbeing. Gudmunson and Danes (2011) noted that financial attitudes are one of the key predictors of subjective financial well-being, in addition to financial knowledge and financial capability. Shim et al. (2009) proposed and empirically tested a conceptual model for how self-actualizing personal values, parental financial socialization and formal financial education impact subsequent financial wellbeing and overall life satisfaction.

#### **4.2.2 Family financial socialization theory (FFST)**

Financial socialization is “the process of acquiring and developing values, attitudes, standards, norms, knowledge, and behaviors that contribute to the financial viability and individual well-being” (Danes, 1994, pg. 28). Gudmunson and Danes (2011) conceptualized a model for financial socialization processes and outcomes, including implicit as well as explicit socialization. Financial attitudes, knowledge, and capabilities were the proximal outcomes and financial behavior and financial well-being were the distal outcomes of the socialization process (Gudmunson et al., 2016). A few studies (Raghunathan et al., 2020; Kim and Torquati, 2021) have looked at the overall effect of parental love or warmth on financial behavior. LeBaron and Kelley (2021) review extant literature to arrive at a summary of the different processes and outcomes of family financial socialization across generations.

## **4.3 Literature review and hypotheses**

Materialistic values and cultural environment drive the intergenerational transfer of money attitudes. The following subsections discuss the relevant literature and the corresponding hypotheses.

### **4.3.1 Cultural Factors in the Indian Context and Intergenerational Transmission**

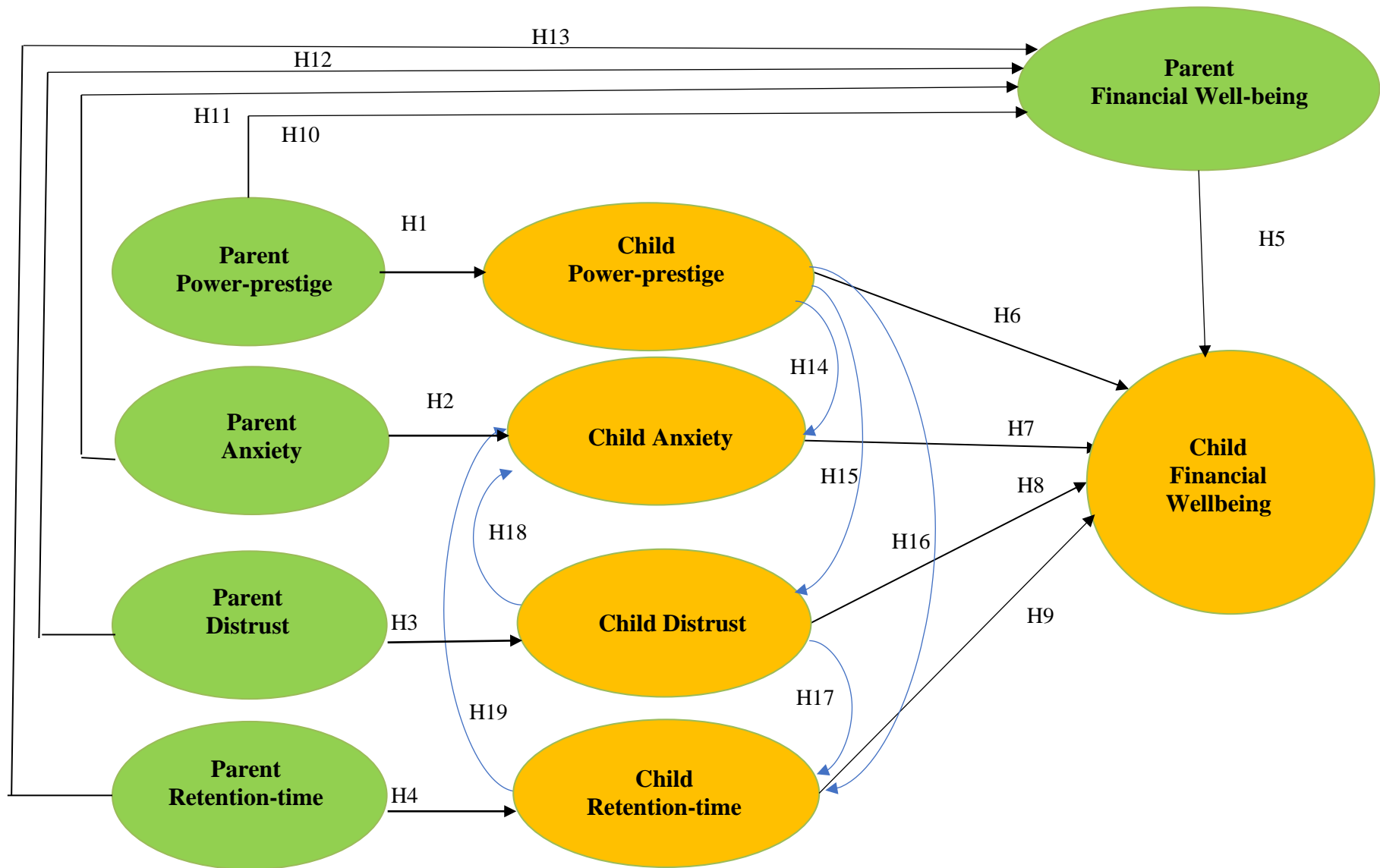
Indian cultural norms often emphasize thrift and saving as necessary values for survival. Indian consumers tend to be financially conservative, risk averse and long-term oriented. Jain and Joy (1997) identify saving and investing in education to be guiding factors that influence financial decisions among Indian origin families. Merchant et al. (2015) find that families are the primary social group that perpetuate the meaning of money. Attitudes towards money are deeply embedded within the socio-cultural ethos as well as religious symbolism and rituals in Indian culture. Every business transaction is started by invoking Laxmi (the goddess of wealth) and Ganesha (the god of new beginnings) (Mazumdar and Mazumdar, 2005). Singh and Bhandari (2012) found that within joint families in rural areas, older men control family finances, even if they are not the main earning member. Tyagi and Ranga (2017) found that the younger generation exposed to post-liberalization economic growth indulge in hedonic and conspicuous consumption while older generations are more prudent in financial matters. Mahapatra et al. (2024) found that parental direct teaching has a direct significant influence on desirable financial behaviors and life satisfaction of college students in India. Young adults trust members of their closest circle such as their parents or siblings for financial advice (Delis and Mylonidis, 2015). Thus, the immediate family plays a crucial role in development of attitudes

towards money which further impacts financial literacy and financial management practices (Goyal et al., 2023).

In a study of college students in India, Mahapatra et al. (2024) found that parental direct teaching has a direct significant influence on desirable financial behaviors and life satisfaction of college students in India. Gill and Bhattacharya (2018) studied the association of financial attitudes (e.g. attitude towards saving, risk, spending, borrowing) among parent and their school-going children and found a positive relationship between the parent and their child. In another study of college students, Jariwala (2022) examined relationship between implicit (observation of parents and peers), explicit financial socialization (financial discussion with parents, peers) and financial self-efficacy and autonomy of college-going students. They found strong link between such financial socialization and financial self-efficacy and autonomy of the students. Further, they noted that parents are most effective socializing agents for the youth, in comparison to their peers.

We propose a conceptual model of intergenerational transmission of money attitudes from parents to their adult children, and subsequent financial wellbeing of the young adult (Figure 4.1).

Figure 4.1. Conceptual model for financial wellbeing



Based on the above, we propose the following hypotheses. In each hypothesis statement, the word “Child” is used for the young adult (18 to 45 years), and the word “Parent” is used for their parent.

Hypothesis H1: Parent's power-prestige is positively associated with young adult's power-prestige.

Hypothesis H2: Parent's anxiety is positively associated with the young adult's anxiety.

Hypothesis H3: Parent's distrust is positively associated with the young adult's distrust.

Hypothesis H4: Parent's retention–time is positively associated with young adult's RT.

Parents can also influence their child’s financial outcomes. In a study of Slovenian parent-child pairs, Zupančič et al. (2023) examined the intergenerational financial relationship links and found that parental financial management satisfaction is significantly associated with corresponding college-going child’s financial management satisfaction. Lanz et al. (2020) examined the association between family communication quality, family economic enmeshment, emerging adult’s adoption of parental financial role modeling acting as a mediator (implicit financial socialization) and emerging adult’s objective & subjective financial well-being. They found that family communication quality has an indirect association with subjective financial wellbeing of emerging adult’s, the association is mediated through emerging adult’s adoption of parental financial role modeling. Very few studies in the extant literature have investigated implicit parental financial socialization (Lanz, 2020).

Hypothesis H5: Parent’s financial well-being is associated with their child FWB.

### **4.3.2 Money attitudes and financial wellbeing**

One of the key antecedents of financial wellbeing is financial socialisation in childhood or youth (Serido et al., 2010; Drever et al., 2015; Rea et al., 2019). Money beliefs are key

predictor of financial satisfaction than perception of their financial progress among a sample of residents in the U.S. (Wilhelm et al, 1993). Money attitudes, financial practices, self-efficacy, emotional coping have a clear contribution to financial well-being among Malaysian employees working in public sector (Sabri et al, 2020). Dowling et al (2009) observed that money attitudes contribute to financial satisfaction. In a study of young adults in India, Utkarsh et al. (2020) found that young adult's attitudes toward money have a direct positive association with young adult's financial wellbeing. Gasiorowska (2015) studied the moderating role of money attitudes and found that affective dimension of money attitudes related symbolic meaning of money partially moderated association between income and financial satisfaction whereas instrumental money attitudes related to management of money moderated the relationship. Gasiorowska also found that the association between income and financial well-being is stronger for individuals who scored higher on money management. Money attitudes have also been found to be a crucial determinant of financial well-being (Wilhelm et al., 1993; Dowling et al., 2009; Sabri et al., 2020). With this background, it is important to understand the factors that shape money attitudes of young adults.

Based on the literature, we propose the following hypotheses:

Hypothesis H6: Child's power-prestige is associated with their own FWB.

Hypothesis H7: Child's anxiety is associated with their own FWB.

Hypothesis H8: Child's distrust is associated with their own FWB.

Hypothesis H9: Child's retention-time is associated with their own FWB.

Hypothesis H10: Parent power-prestige is associated with their own FWB.

Hypothesis H11: Parent anxiety is associated with their own FWB.

Hypothesis H12: Parent distrust is associated with their own FWB.

Hypothesis H13: Parent retention-time is associated with their own FWB.

### **4.3.3 Inter-trait associations among different dimensions of money attitudes**

Prior literature has noted inter-trait associations among money attitudes and other psychological factors, which ultimately affected their financial capability and financial behaviour. Durvasula and Lysonski (2010) found that power-prestige and distrust were both positively associated with the anxiety dimension. Individuals who save money are less anxious (Strömbäck et al., 2017). Prior literature has investigated the association between objective wealth, money anxiety and subjective wealth (Gasiorowska, 2014). Prior literature has also investigated associations between metaphorical reasoning of money (finding a fortune or searching for wealth), money anxiety and spending (Kersten et al., 2019). Individuals with higher financial anxiety tend to save more (Hayhoe et al., 2012). The association of distrust money attitude dimension, social distrust and saving behavior has also been examined in literature (Hayhoe et al., 2012; Su et al., 2025). Based on the prior literature, we propose the following hypotheses:

Hypothesis H14: Child's power-prestige is associated with child's anxiety.

Hypothesis H15: Child's power-prestige is associated with child's distrust.

Hypothesis H16: Child's power-prestige is associated with child's retention-time.

Hypothesis H17: Child's distrust is associated with child's retention-time.

Hypothesis H18: Child's retention-time is associated with their anxiety.

Hypothesis H19: Child's distrust is associated with their anxiety.

### **4.3.4 Control Variables**

We have considered socio-demographic factors in our study to understand the extent of their influence on child's financial well-being. The rationale for the use of control variables is to understand how the results differ with the introduction of different socio-demographic segments. Prior literature has encouraged examining sociodemographic differences in financial outcomes (Gudmunson and Danes, 2011). Extant literature does explore the differences of money attitudes based on socioeconomic and demographic characteristics. Men and women in Ghana displayed differences in power-prestige and distrust of money attitudes (Bonsu, 2008). Power-prestige, and retention-time subscales might not be suitable for low-income groups (Hayhoe et al., 2012). Roberts and Sepulveda (1999) did find significant associations between demographic factors and financial attitudes.

## **4.4 Data Collection and Methodology**

Data collection happened in three waves. First wave of data collection was done during 2020. Second wave of data collection was done in 2022. Third wave of data collection happened in 2024. The survey period lasted 2-4 months in each wave. The survey link with instructions was posted in the WhatsApp groups, Facebook groups, LinkedIn profile and shared among students earning stipend via institution webmail. The data was collected from parent and corresponding child through survey questionnaire. The money attitude scale (Yamauchi and Templer, 1982) has been used to measure the money attitudes. This scale is highly reliable and validated (Medina et al, 1996; Baker & Hagerdon, 2008; Pereira and Coelho, 2020; Phau and Woo, 2008) and also its modified version has been previously used in Indian context (Khare, 2014). The respondent's financial well-being was measured using well established Incharge financial

distress/Financial well-being scale (Prawitz et al., 2006). Other factors such as child's age, income, marital status and gender are included as control variables. Amongst these, age is a continuous variable and its moderating effect was studied on the associations leading to child financial well-being. Income was measured as a categorical variable with several groups. In the final model, it was converted to a binary variable which took a value of 1 if the adult child's income was equal to or more than Rs 25,000 per month and 0 otherwise. [Below 25,000 was considered as the reference income category.](#) Marital status took a value of 1 if the child was single and 0 if they were married. Gender took a value of 1 if the adult child was male and 0 if they were female. Primary data was collected from parent and corresponding child through survey questionnaire administered on a Google link. Each parent-child pair was assigned a unique identification number. A total of 816 responses were collected, out of which the final sample consisted of 251 parent-child dyads i.e 502 respondents.

The parent-child dyad data was divided into parent and child subgroups. The descriptive analysis was done for each subgroup. Confirmatory factor analysis was performed using SPSS software package. Path models were built within the structural equation modeling framework to test the hypotheses related to association of money attitudes and parental financial well-being affects the child's financial well-being using SmartPLS 4.0. [Partial least square structural equation modeling \(PLS SEM\) was used in the analysis.](#) The rationale to use PLS SEM is that it works best with small sample size and can be used for [non-normal data](#). Inter-trait associations were incorporated in the model to see the change in explanatory and predictive power of the fitted model.

## **4.5 Results**

The results are described in the following sub-sections.

### 4.5.1 Descriptive statistics

The descriptive statistics are presented in Table 4.1. The sample size consists of primarily males and educated parent and child. The mean age in the parent subgroup is 56.1 years and, in the child, subgroup is 25.9 years. The income levels of majority of child subgroup is in the range 25,000 – 50,000 rupees and for parent subgroup is in the range of 50,000- 1 Lakh rupees.

**Table 4.1. Socio-economic and demographic characteristics of respondents**

	Categories	Parent group	%age parent	Child group	%age child
<b>Age</b>	Average age	56.1		25.9	
	Standard deviation	5.3		2.9	
<b>Gender</b>	Female	32	12.75%	104	41.43%
	Male	219	87.25%	147	58.57%
<b>Education</b>	Non matriculate	2	0.80%	0	0.00%
	Class 12 pass	34	13.55%	0	0.00%
	Bachelor's Degree	127	50.60%	76	30.28%
	Master's Degree	69	27.49%	146	58.17%
	Doctorate	19	7.57%	29	11.55%
<b>Income</b>	Below Rs. 25,000 / month	14	5.58%	58	23.11%
	Rs. 25,000–Rs. 50,000 / month	52	20.72%	104	41.43%
	Rs. 50,000 - 1 Lakh / month	85	33.86%	45	17.93%
	More than Rs. 1 Lakh / month	68	27.09%	19	7.57%
	Would rather not say	32	12.75%	25	9.96%
<b>Employment</b>	Student	0	0.00%	163	64.94%
	Housewife (Homemaker)	0	0.00%	0	0.00%
	Employed (salaried)	130	51.79%	65	25.90%
	Self Employed / Freelancer/Owns a Business	68	27.09%	12	4.78%
	Looking for Work	2	0.80%	11	4.38%
	Retired	51	20.32%	0	0.00%
<b>Family Status</b>	Single	0	0.00%	234	93.23%
	Married without children	0	0.00%	9	3.59%
	Family dependent children	146	58.17%	8	3.19%
	Family independent children	105	41.83%	0	0.00%
	Two-Wheeler	49	19.52%	69	27.49%

<b>Vehicle Ownership</b>	Four-Wheeler	63	25.10%	22	8.76%
	Both	111	44.22%	61	24.30%
	No	28	11.16%	39	15.54%
<b>House Ownership</b>	Yes	235	93.63%	145	57.77%
	No	16	6.37%	106	42.23%
<b>Perceived Financial Satisfaction</b>	Low	45	17.93%	83	33.07%
	High	206	82.07%	168	66.93%

#### 4.5.2 Confirmatory factor analysis – measurement model

Table 4.2 presents the results of confirmatory factor analysis of the money attitude scale for the entire sample. CFA was also conducted separately for both the parent and child subgroups, but those results have not been reported here. Items with outer loadings above 0.5 were retained for each latent construct. The variance inflation factor (VIF) for all factors was below 5 indicating lack of multicollinearity. Composite reliability (rho c) values for each factor were greater than 0.7 indicating high internal consistency (Hair et al, 2019). Cronbach alpha values were above the threshold of 0.8 indicating moderate internal consistency (except for anxiety). AVE values of all constructs were above the recommended threshold of 0.5. The discriminant validity was checked using HTMT ratios and Fornell and Larcker criterion, and was met the necessary criterion with low inter-factor correlations. Four factors emerged as follows:

*Power-prestige:* The first factor was related to whether the respondent thought of money as a source of power and prestige. Nine items loaded on this factor with loadings varying from 0.646 to 0.767. Cronbach's Alpha was 0.892, indicating high internal consistency.

*Retention-time:* This factor identifies prudent behavior in money matters, including following a budget and planning for the future. Seven items loaded on this factor with factor loadings ranging from 0.681 to 0.810. The Cronbach's alpha of this factor was also quite high at 0.881, indicating a good level of internal consistency.

*Distrust:* Six items loaded on the same factor in our data. Items related to a feeling that the person might have paid a higher price for their purchased items had higher loadings. The items related to not having enough money loaded to a smaller extent. Cronbach alpha for this factor was 0.827 which also indicated a high level of construct validity.

*Anxiety:* Three items loaded on this factor. Cronbach's alpha was lower at 0.771, however composite reliability is above 0.788 which indicates an acceptable level of internal consistency.

*Financial Wellbeing:* Confirmatory factor analysis of the IFDFW scale yielded a single factor – which was named “financial distress”. Seven items loaded on this factor with factor loading magnitudes ranging from 0.618 to 0.848. Results have been shown in Table 4.2. Cronbach's alpha and composite reliability are within acceptable ranges.

**Table 4.2. Measurement Model - Factor loading matrix for money attitude dimensions and financial wellbeing**

	<b>Power- prestige</b>	<b>Retention- time</b>	<b>Distrust</b>	<b>Anxie ty</b>	<b>FWB</b>
I must admit that I purchase things because I know they will impress others.	0.767				
In all honesty, I own nice things in order to impress others	0.757				
People I know tell me that I place too much emphasis on the amount of money a person has as a sign of his success.	0.757				
I must admit that I sometimes boast about how much money make.	0.735				
Although I should judge the success of people by their deeds, I am more influenced by the amount of money they have.	0.729				
I use money to influence other people to do things for me.	0.702				
I behave as if money were the ultimate symbol of success.	0.696				
I seem to find that I show more respect to people with money than I have.	0.694				
I often try to find out if other people make more money than I do.	0.646				
I do financial planning for the future		0.810			
I save now to prepare for my old age.		0.801			
I do financial planning for the future		0.780			
I follow a careful financial budget.		0.780			
I keep track of my money.		0.745			
I am very prudent with money		0.732			
I have money available in the event of another economic depression.		0.681			
After buying something, I wonder if I could have gotten the same for less elsewhere.			0.806		
It bothers me when I discover I could have gotten something for less elsewhere.			0.796		
When I buy something, I complain about the price I paid.			0.750		
I argue or complain about the cost of things I buy.			0.710		
When I make a major purchase, I have the suspicion that I have been taken advantage of.			0.613		
I automatically say, "I can't afford it" whether I can or not.			0.586		
I show signs of nervousness when I don't have enough money.				0.789	
I show worrisome behavior when it comes to money.				0.756	
I worry that I will not be financially secure.				0.687	

**Table 4.2 contd.. Measurement Model - Factor loading matrix for money attitude dimensions and financial wellbeing**

	<b>Powe r- presti ge</b>	<b>Retentio n Time</b>	<b>Distru st</b>	<b>An xiet y</b>	<b>FWB</b>
How often do you worry about being able to meet normal monthly living expenses?					-0.848
How stressed do you feel about your personal finances in general?					-0.841
What do you feel is the level of your financial stress today?					-0.785
How frequently do you find yourself just managing somehow financially and waiting for next salary/payments?					-0.749
Do you worry about your current financial situation?					-0.732
How often does this happen? You want to go out to eat, go to a movie and don't go because you feel you can't afford it?					-0.666
How satisfied are you with your financial situation.					0.618
<b>Cronbach's Alpha</b>	0.892	0.881	0.827	0.771	0.870
<b>Composite reliability (rho_c)</b>	0.907	0.906	0.861	0.789	0.900
<b>AVE</b>	0.520	0.581	0.512	0.555	0.567

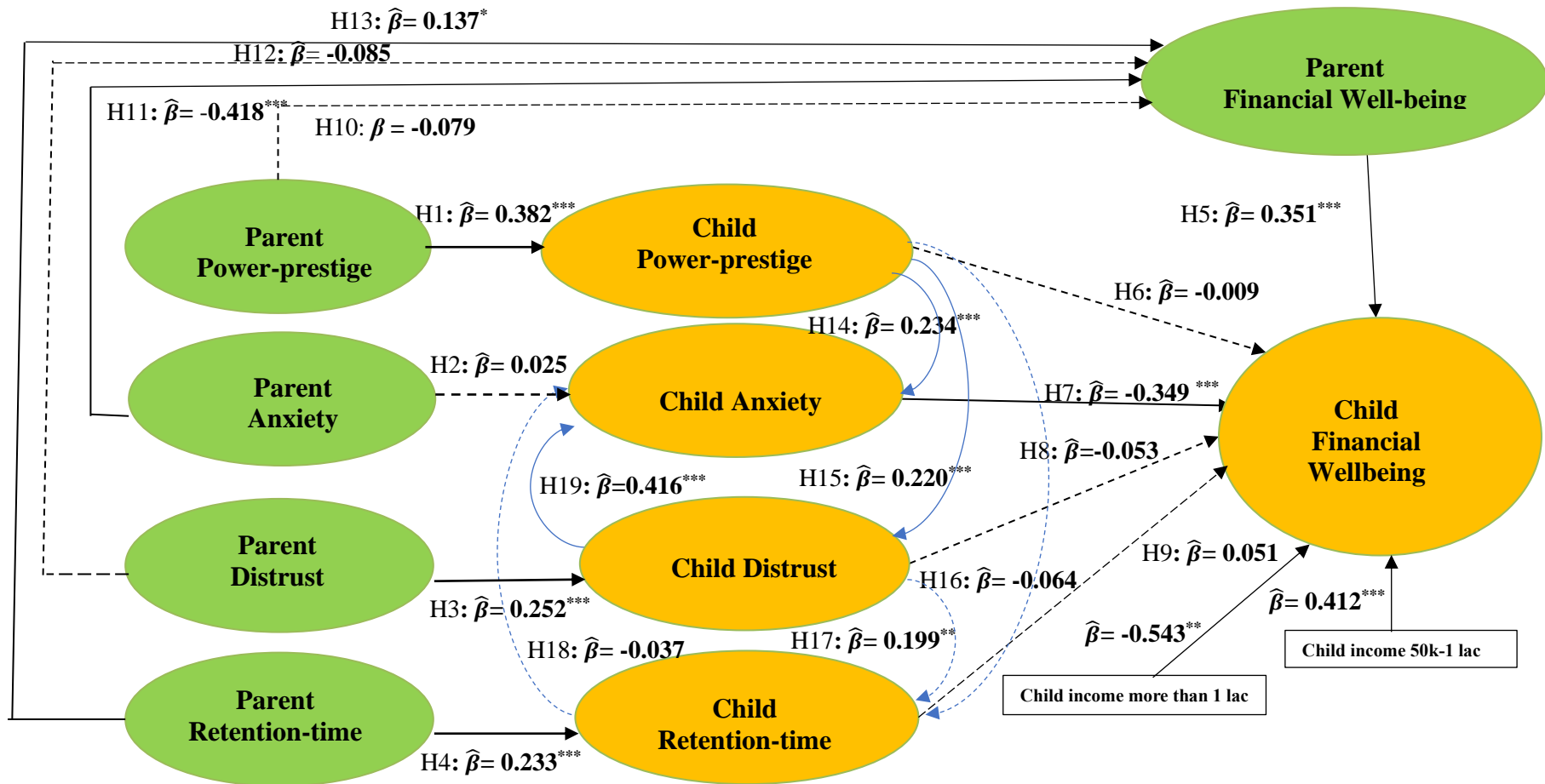
### 4.5.3 Structural models for financial well-being (FWB) of child

The research question we posed was related to understanding how parental money attitudes affected their adult child's financial well-being, and whether this is mediated by the child's money attitudes. Several structural equation models were estimated to test the hypotheses of the proposed model. Several alternative models were tested and compared, which included several inter-trait associations and models that included the direct impact of parental money attitudes on child's financial wellbeing. We utilized cross-validation predictive ability test (CVPAT) as proposed by Sharma et al. (2022) to evaluate the predictive capability of these models. The model with the highest explanatory and predictive power for financial wellbeing of the child was selected as the final model. Figure 4.2 depicts the final model, retaining only those factors that were found to have a statistically significant effect on the child's (young adult's) financial well-being.

Two dimensions of money attitudes, viz. parental power-prestige and parental distrust had an indirect statistically significant relationship with child's financial well-being. Parent's financial well-being has a significant positive association with child's financial well-being. Parent's distrust had a positive association with child's distrust, which had an overall weak negative association with child's financial well-being. Parent's power-prestige attitude is positively associated with child's power-prestige attitude. Further, child power-prestige attitude positively associated with child anxiety money attitude. Also, the child's anxiety attitude had a direct negative association with child's financial well-being. Parent retention-time money attitude positively associated with child retention-time money attitude. Child retention-time money attitude does not have a significant association with child's financial well-being. [Parental retention-time and parent anxiety money attitude dimension have a positive and a negative association with](#)

the parent's financial well-being. Parent's financial well-being has a direct positive association with child's financial well-being. Thus, we find evidence for accepting hypothesis H1, H3, H4, H5, H11, H12, H14, H15, H19.

Figure 4.2. Path Model Coefficients for Fitted Model, Model Fit Indices



**Note:** If fitted coefficients were statistically significant, those paths have been denoted by solid arrows, if path coefficients were not statistically significant have been denoted by dotted arrows.  $^{**} p \leq 0.01$ ,  $^* p \leq 0.05$

#### 4.5.4 Model Fit Parameters for Structural Models

The appropriate fit parameters that need to be reported for PLS-SEM models have been discussed by Hair et al., (2019). Following their recommendations, we report the  $R^2$  and adjusted  $R^2$  values for each of the endogenous constructs in Table 4.3. As can be seen, the model has moderate explanatory power for the child's financial wellbeing with an adjusted  $R^2$  of 0.302. However, the path coefficients in the model were all statistically significant with p values being less than 0.001. Further SRMR values for the estimated model is 0.076 which meets the recommended threshold.

One of the newer tests for predictive validity in the context of PLS-SEM model is the cross-validation predictive ability test (CVPAT) proposed by Sharma et al. (2022). This test provides the predictive ability of the estimated model for out of sample datasets. The results of the CVPAT test for the overall model are depicted in Table 4.3 below. As can be seen, the losses between the predicted model and indicative averages (IA) and linear model (LM) are both less than 0 and statistically significant. The results indicate that the overall fitted model has high prediction accuracy and outperforms the naïve indicator averages (IA) benchmark and conservative linear model (LM) benchmark (Sharma et al., 2022).

**Table 4.3. Model Fit Parameters**

	<b>R-square</b>	<b>R-square adjusted</b>
<b>C_Anxiety</b>	0.285	0.273
<b>C_Distrust</b>	0.133	0.126
<b>C_FWB</b>	0.339	0.309
<b>C_Power</b>	0.146	0.143
<b>C_Retention</b>	0.089	0.078
<b>P_FWB</b>	0.283	0.272
	<b>Saturated model</b>	<b>Estimated model</b>
<b>SRMR</b>	0.067	0.076
<b>Chi-square</b>	4539.154	5389.384
	<b>Difference of Losses of PLS Model with Benchmark Models</b>	<b>p-value</b>
<b>CVPAT<sup>benchmark_IA</sup></b>	-0.260	0.000
<b>CVPAT<sup>benchmark_LM</sup></b>	-0.532	0.000

## 4.6 Discussions

This study provides empirical evidence for the intergenerational transmission of money attitudes among 251 parent-child dyads in India and its association with child's financial well-being. The findings highlight the relevance of parental financial socialization and its association with financial well-being, thus supporting FFST. We examined whether parental money attitudes influence child's money attitude and do the parental money attitudes influence child's financial well-being. We find that parental money attitudes do have an influence on their corresponding child's money attitudes directly and their financial well-being indirectly. This depicts that parents are effective socializing agent from whom children do learn. The hypothesis H1 is significant and it depicts that if a parent perceives money as a source of power and influence, the child also is learning the same virtue. The hypothesis H3 is also significant and depicts that if a parent perceives

money as a source of doubt about their financial decision, not able to trust their financial decision, then the child is learning the same attitude. The hypothesis H4 also came out to be significant and this depicts that if a parent is cautious about money and perceives that budgeting, financial planning, tracking of expenses is important, his/her child will be learning the same attitude. The parental anxiety money attitude is not significantly associated with child's anxiety money attitude (hypothesis H2). This depicts that the parent's keep their financial worry within themselves and so not show it to their child.

Parental attitudes of power-prestige and distrust had an indirect and positive impact on the child's anxiety and this relationship was mediated via the child's power-prestige and distrust dimensions. This depicts that parent's way of maintaining social status and inability to trust their own financial decisions contributed to their child's anxiety to some extent. The effect size (Hair et al., 2019) for child distrust affecting child anxiety was  $f^2=0.208(<0.35, \text{medium})$ . The effect size of child power prestige affecting child anxiety was  $f^2=0.069 (>0.02, \text{medium})$ . Child's anxiety was the only dimension that had a direct negative association with the child's financial wellbeing. This depicts that an increase in child's anxiety results in lower financial wellbeing of the child. The effect size was  $f^2=0.127(<0.35, \text{medium effect})$ . Hence, a moderate association exists between child's anxiety and child's financial well-being.

Parental retention time and parent anxiety money attitude dimension is associated with the parent's financial well-being. This depicts that parental anxiety lowers their financial well-being. Parental retention-time money attitude dimension improves their financial well-being. Parental retention-time had a statistically significant and positive association with child's retention-time. However, this did not have a statistically significant effect on the child's financial well-being. This depicts that the child has learnt from their parents about budgeting their money, financial planning, tracking their expenses. But, the young

adult current financial planning or habit of tracking their expenses is not enough to contribute to a long-term consequence perspective as the mean age of child sub group is around 25 years only. We also found that parental financial well-being contributed to the financial well-being of their child. This depicts that if parent's financial wellbeing is low, it will lower their child's financial well-being. The effect size of this association was  $f^2=0.177(<0.35$ , medium effect). Hence, a moderate association exists between parent financial well-being and child financial well-being. On the basis of effect size, we can interpret that the direct effect of parent financial well-being on child's financial well-being is slightly more than direct effect of child's own anxiety. The effect size of all significant associations were medium in nature.

Among the sociodemographic variables, only two income groups namely Rs 50,000-1 lakh and Rs more than 1 lakh came out to be significantly influencing the child's financial well-being. This depicts that higher the income an adult young child, higher will be his/her financial well-being. We examined other categorical variables such as age, gender, marital status of child. We observed that the age of child, the gender of child, the marital status of child does not significantly influence the child's financial well-being. The findings have a practical implication in improving a child's financial education early in life through strengthening parent's financial education.

Our results reflect similar results in a few extant studies related to the intergenerational transmission of attitudes and behavioral patterns. Dohmen et al., (2012) found that the "willingness to trust others" was passed on from parents to children in German households. In another study of Swedish households, Almenberg et al. (2021) found that parental attitudes towards debt are strongly correlated with the child's attitude towards debt. Financial socialization in childhood helps cope up with the financial distress in adulthood by building cognitive (financial knowledge and financial skills) and non-

cognitive abilities (financial self-control) (Zhao et al., 2023). Parental financial socialization through regular parental discussion about how to spend money aids financial understanding among young children and preschoolers (Fletcher and Wright, 2024) as well as college students with student loan (Danahy et al., 2023).

The empirical results of this study related to the association between specific money attitudes with financial wellbeing are also similar to some other studies. The intertrait association between power prestige, distrust and anxiety are similar to results of Durvasula and Lysonski (2010). Gasiorowska (2014) found that money anxiety (worry and indecisiveness regarding money-related issues) has a negative association with their subjective wealth dimensions. Using data from Korean adults, Pak et al. (2024) found that implicit parental financial socialization through observing parental financial behaviors has a positive association with Korean adults' financial wellbeing. Overall, we find implicit parental financial socialization through parental money attitudes have a weak association with young adult's financial wellbeing. Zupančič et al. (2023) studied the intergenerational financial relationship links among Slovenian parent-child pairs and found that parental financial knowledge, financial teaching, financial behavior (e.g., regular savings) and consequent financial management satisfaction are significantly associated with corresponding college-going child's financial knowledge, financial behavior and consequent financial management satisfaction. One of the contributions of this study is the conceptualization of the model for intergenerational transmission of money attitudes and its subsequent association with the financial wellbeing of young adults. The use of dyadic parent-child data for estimation of the model, which removes possible single-informant bias is an important methodological contribution of the paper. The estimated models provide empirical evidence for intergenerational transmission of money attitudes and its impact on the child's financial well-being.

## 4.7 Conclusions, Limitations, Implications

The young adults have to step in to the real world, where for financial stability, they need to take prudent financial decisions. They need to inculcate financial awareness to safeguard themselves from predatory behaviors of marketers. Young adults can gain financial information from many sources such as social media, friends, family, school, workplace. The fact is that the more financial insight and related personal financial management experience they gain since their early childhood, the better financially well-off they would be in their adulthood. The authenticity, reliability and effectiveness of the sources in shaping financial knowledge of young adults needs closer examination. One of the most reliable sources of financial know-how for any young adult is their own parents. It is imperative to examine the extent of transfer of such know-how between parents and their child. In, our study we are examining the role of implicit parental financial socialization in shaping financial well-being of young adults.

This study examines the extent of intergenerational transfer of money attitudes and its association with financial wellbeing of young adults in India. Using cross-sectional data for 251 parent-child dyads, we find that three dimensions of parental money attitudes viz. power-prestige, distrust, and retention-time are positively associated with the corresponding attitudes of their adult children. Child's anxiety was the only dimension that had a direct negative association with the child's financial wellbeing. The fit and predictive properties of the measurement as well as the path models estimated via structural equation modeling were good. We overall find that intergenerational transfer of money attitudes exists in collectivistic culture of India and this further contributes to the financial well-being of an individual.

Our study has a few limitations. The sample was collected via convenience and snowball sampling, and hence our results are indicative but not generalizable. Further since we use cross-sectional data rather than longitudinal data, we could not explore the evolving nature of the intergenerational transmission of attitudes. Parental impact on their children's financial decisions may change as the young adult goes through different life stages such as marriage, having children or progression in their career leading to greater financial stability. Policy implications of this study are as follows. Traditional financial literacy programs have had limited efficacy in terms of improving financial behaviors of adults (Klapper et al., 2015). Hence, it may be important to educate parents in terms of the possible implications of inculcating appropriate money values with a view of its impact on their children's future wellbeing. Tang (2017) has also highlighted that the participation of parents in their child's financial education needs encouragement as implicit or explicit parental financial socialization is a more efficient and effective means of increasing financial capability.

# Chapter 5: Post COVID Financial Wellbeing: Role of Income Shock, Financial Resilience and Psychological Resilience

## 5.1 Introduction

The coronavirus disease 2019 (COVID-19) had a disastrous effect on the global economy with estimated losses of \$2.74tn between 2020 and 2021. Some developing countries like India faced severe economic and employment losses. The growth rate of India's gross domestic product dropped from 6.29% in 2019 to  $-5.64\%$  in 2020<sup>8</sup>, and unemployment rates rose from 5.27% in 2019 to 7.11% in 2020<sup>9</sup>. The unprecedented scale of the pandemic, both in its severity and spread, provides a natural setting to understand how individual resilience traits helped to restore a sense of financial well-being (FWB) during the pandemic. [The psychological resilience and financial resilience contribute to their overall resilience of an individual. This study aims to understand the extent to which the psychological resilience and financial resilience influence financial well-being of an individual in times of COVID-19 induced income shock.](#)

Income and health shocks associated with the pandemic had a nonuniform effect on different segments of society, with some sections faring better than others (Botha et al., 2021). Recent studies have examined the effect of COVID-19 among different socioeconomic and demographic segments such as women (Agarwal, 2021; Deshpande, 2022), migrant households (Rajan et al., 2021), remittance dependent households (Gupta et al., 2021), the informal sector (Kesar et al., 2021) and low-income households (Leightner, 2021, Thomas et al., 2022). However, none of these studies have considered

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<sup>8</sup> <https://www.statista.com/outlook/co/economy/india#gross-domestic-product>

<sup>9</sup> <https://www.statista.com/statistics/271330/unemployment-rate-in-india/>

the role of income shocks and mediating roles of psychometric variables such as financial and psychological resilience (PR) on FWB. This research gap motivated the present study. The objective of this study was to empirically determine whether COVID-induced income losses was associated with subsequent FWB, and whether an individual's resilience helped to mitigate the impact of such losses.

Within resilience, we distinguish between two different constructs: financial resilience and PR. Financial resilience is related to extrinsic resources such as economic, institutional, knowledge and social capital that individuals can access when faced with difficult situations (Salignac et al., 2019). PR is an intrinsic characteristic that allows a person to bounce back from difficult situations and adapt to adverse situations (Fletcher and Sarkar, 2013; Graber et al., 2015). While both may be important for recovering from negative income shocks, we aim to test the extent of their relative association with FWB.

Based on a review of the theory and the empirical literature, we conceptualized a model to examine how an income loss incurred during the pandemic was associated with subsequent FWB, with financial resilience and PR being mediator variables. For FWB, we used a subjective self-reported measure based on the conceptual model of Kempson and Poppe (2018). For financial resilience, we chose a multidimensional measure that combines access to economic resources, financial inclusion, financial knowledge and social capital (Salignac et al., 2019). We measured PR using the brief resilience scale (Smith et al., 2008). A questionnaire was formulated with 55 items and administered to 370 Indian respondents. Data were analyzed using partial least square based structural equation models. We present below the results of the measurement and structural models, and discuss their real-world implications.

This study is connected to previous two chapters as it also examines the psycho-social antecedents of a financial outcome. The social factor being examined in this chapter (study 3) is income shock due to pandemic. The psychological factor being examined in this chapter is psychological resilience. The psycho-social antecedents of financial attitudes and financial well-being are being studied in the thesis. The social antecedent in first two study (Chapter 3 and 4) is parental financial socialization. The psychological antecedent in first two study (Chapter 3 and 4) is money attitude. All three studies depict the relevance of intrinsic factors. Chapter 3 and 4 focus on the intrinsic factors such as money attitudes. Chapter 5 focuses on the intrinsic factor psychological resilience. The research objectives are as follows: (i) to examine the association between income shock due to COVID-19 and financial well-being, (ii) to examine the role of psychological and financial resilience in the association between income shock and FWB of affected individuals. Income shock due to COVID-19 refers to decrease in income due to pandemic. The research questions that we are interested in are as follows: First, how was income loss experienced as a consequence of COVID associated with current FWB of individuals? It can be simply interpreted as did income loss due to COVID-19 impact financial well-being (FWB) of individuals? Second, did psychological resilience (PR) mediate the relationship between income loss and FWB for affected individuals? Third, did financial resilience (FR) play a mediating role in this relationship?

Our primary contribution lies in understanding whether individual resilience factors moderated the relationship between COVID-induced income losses on FWB. We find that while both financial and PR was positively associated with FWB, the former had a larger effect size compared to the latter. Moreover, among the multiple components of financial resilience, economic resource was the only predictive factor. In other words, while financial inclusion, financial literacy and social capital may be important for

building financial resilience, after the onset of the pandemic, the key factor was economic resources. This has important policy implications, as discussed later in this paper.

## 5.2 Theoretical background

In this section, we study the theories associated with FWB, financial resilience and PR. Subsequently, we examine empirical papers that have studied the interaction between these three distinct constructs.

### 5.2.1 Theory related to financial well-being

FWB is an important component of overall well-being of an individual and has gained prominence in the academic literature in the last 20 years. The Consumer Financial Protection Bureau (CFPB, 2017, p. 6) defined FWB as “*a state of being wherein a person can fully meet current and ongoing financial obligations, feel secure in their financial future, and is able to make choices that allow them to enjoy life.*” This definition recognizes different needs that money fills: from basic needs of survival and security to higher level needs such as the ability to enjoy life on one’s own terms (Comerton-Forde et al., 2018).

FWB can be measured by either objective or subjective criteria (Xiao, 2016; Comerton-Forde et al., 2018). Objective measures of FWB include directly observable quantities like income, wealth and investment in financial markets (Collins and Urban, 2020). Subjective measures of FWB focus on the individual’s *perception* of FWB, measured using psychometric scales. Brüggem et al. (2017, p. 229) defined subjective FWB as the “*perception of being able to sustain current and anticipated desired living standards and financial freedom.*” An individual’s perception of their FWB may depend not just on their current wealth or income levels but also on their history, expectations

and aspirations (Schieman and Pearlin, 2006). Further, people often benchmark their perceptions based on their relative well-being compared to peers (Schieman and Pearlin, 2006; Chatterjee et al., 2019). Thus, FWB is not just a static state of being, but rather a dynamic construct (Salignac et al., 2020) that evolves with life circumstances. Some authors have noted the advantages of using subjective measures of well-being over objective measures (Strömbäck et al., 2020). In this study, we use a subjective measure of FWB as stated below.

Kempson and Poppe (2018) proposed an operational measure of subjective FWB, which included three dimensions: (1) the extent to which respondents are able to meet current commitments, (2) the extent to which respondents feel comfortable financially and (3) the extent to which they feel that they will be able to absorb future shocks. The first dimension is related to meeting basic needs; the second-dimension measures whether there is money left over for extras; and the third dimension is related to having an economic buffer in sudden emergencies. This measure has been adopted by some recent authors (Carton et al., 2022; Porter and Bowman, 2021). In this study, we follow this multidimensional conceptualization to develop a scale for FWB.

### **5.2.2 Resilience theory**

Holling (1973), in his seminal paper, conceptualized resilience as a characteristic of a socio-ecological system that enables it to transition from one state of equilibrium to another. The bio-social-ecological theory of resilience illustrates the connection between an individual's resilience at the micro level to systemic resilience at the macro level (Ungar et al., 2013). Three elements are important to define resilience, namely, (1) the characteristics of the system under threat, (2) the nature of the shock or adverse situation

that causes a change in the system and (3) the final state of the system that indicates that the system is stable again.

Economic resilience has been studied in the context of governments, organizations and also individuals (Hallegatte, 2014). Hallegatte distinguishes between macroeconomic and microeconomic resilience and also between the concepts of instantaneous response (to a disaster) and long-term dynamic resilience measured by the evolving state of the system over time. Thus, resilience is a complex concept about a multidimensional and dynamic attribute that incorporates the ideas of resistance, recovery, rebuilding and reconfiguration of a system in response to an external shock. In this study, we will look at two different aspects of resilience: financial as well as PR of individuals.

In the context of individuals, Schoon and Bynner (2003, p. 21) define resilience as *“the capacity of human beings to overcome extreme adversity, and to show positive adaptation in the face of that adversity”*. PR has been conceptualized by some authors as a character trait (Connor and Davidson, 2003), while others describe it as an interactive process between an individual and their life circumstances (Luthar et al., 2000). Fletcher and Sarkar (2013) provide a comprehensive review of the definitions, conceptualizations as well as theories associated with PR. Strength of character, grit, hope and optimism are considered to be important components of PR that helps individuals deal with difficult circumstances even in the absence of adequate internal and external support systems (Smith et al., 2008; Panigrahi and Suar, 2021).

While PR measures an individual’s mental ability to bounce back from adverse situations, financial resilience relates specifically to recovering economically from adverse financial shocks. Salignac et al. (2019, p. 21) defined financial resilience as *“an individual's ability to access and draw on internal capabilities and appropriate, acceptable and accessible*

external resources and supports in times of financial adversity.” This definition takes a resource-based view of resilience rather than an outcome-based view. Their framework identifies four different categories of internal and external resources that an individual may have access to that may help them get back on their feet. The internal resources include (1) the accumulated economic resources (e.g. savings) and (2) their financial knowledge and behavior. The external resources include (3) financial inclusion (institutional access) and (4) social capital.

### **5.3 Literature review and Hypotheses**

Following the discussion of the theory related to FWB and resilience, we now review the empirical literature related to various constructs we will consider in this paper.

#### **5.3.1 COVID-19 income shock**

Several studies have looked at the impact of COVID-19 on incomes and livelihoods across the world, and how this affected FWB. In the United States, households with low liquid assets faced severe income shocks (Clark and Mitchell, 2022; Bufe et al., 2022). The authors found that household’s subjective FWB declined more due to income shocks rather than expenditure shocks. In a comparative study of spending patterns of US and Israeli households, Roll et al. (2022) found that minorities suffered greater hardships. American households that were financially vulnerable suffered a financial strain, whereas affluent households experienced neutral or positive changes (Bruce et al., 2022).

COVID-related income shock varied across countries as employees in Austria, Finland and France were less vulnerable compared to their counterparts in Italy and Portugal. Around 19% of the European population faced income shock for three months (Midões and Seré, 2022). The effects of the income shocks were heterogeneous within

countries (Midões and Seré, 2022; Stavins, 2021; Porter and Bowman, 2021). Households where the head was either a single parent, a women, the only income earner, an immigrants or had low education levels and low savings were the most vulnerable groups worst affected by the pandemic. Kaya (2020) observed that German household were financially resilient to income shocks due to government work-benefit schemes and high savings rates.

Using data from Australia, Porter and Bowman (2021) and Sun et al. (2022) found that vulnerable groups such as unemployed, poorer individuals and older people suffered higher levels of loss of well-being as a result of COVID-19. In a similar study from Kenya, lower-income households or those dependent on earnings from the unorganized sector were found to be more vulnerable to income shocks (Kansiime et al., 2021). In the Indian context, Kesar et al. (2021) found that about two-thirds of the 5,000 respondents across 12 Indian states faced loss of employment and had to undergo acute economic hardships including not being able to buy food and essential items.

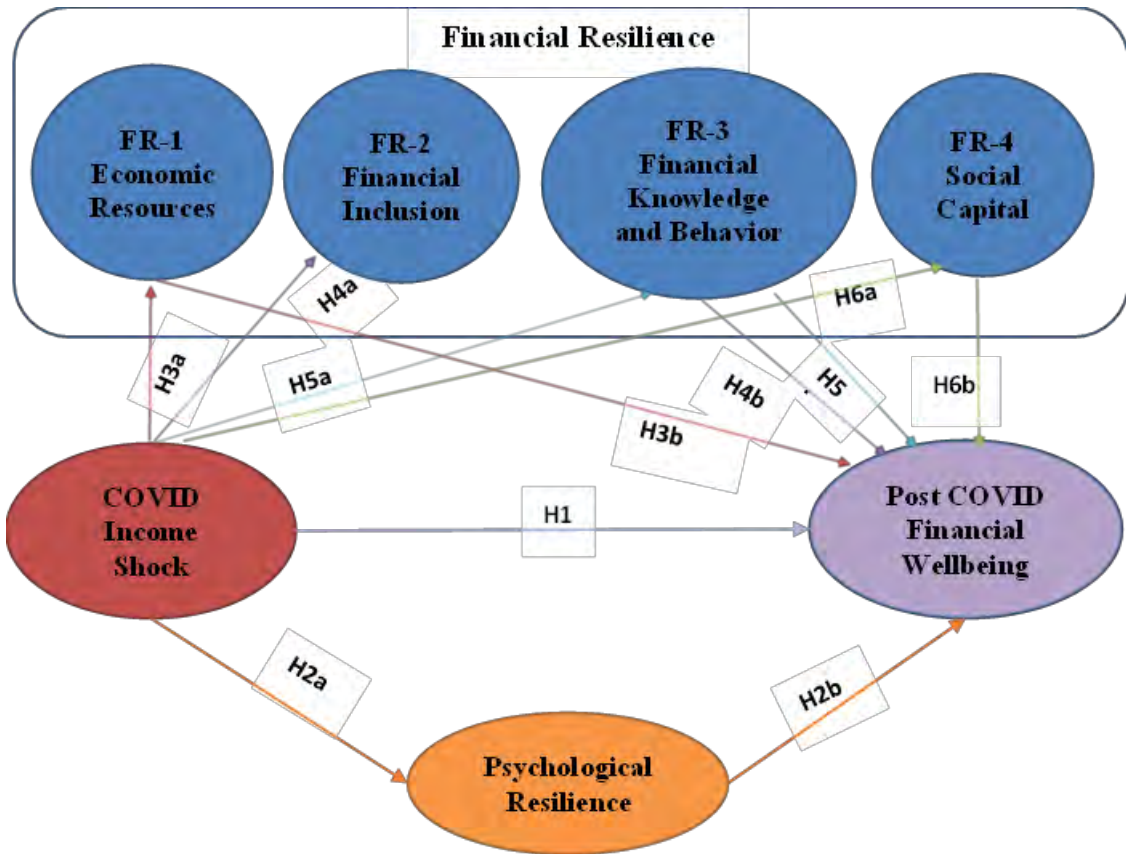
Based on the extant literature on income shock, we propose the following hypothesis:

H1: COVID income shock is associated negatively with FWB in the pandemic.

### **5.3.2 Psychological resilience**

PR is an important additional predictor of well-being, over and above financial resilience (Harms et al., 2019). Cobb-Clark and Kettlewell (2021) observed that deficiency of psychological and cognitive resources caused a vast margin of decline in the life satisfaction of poor households. In the backdrop of a flood in Kerala in 2018, Panigrahi and Suar (2021) found that dispositional attributes such as grit, optimism and self-efficacy were important for resilience of survivors.

Figure 5.1. Conceptual Model



In the context of COVID-19, several authors have studied the role of PR in being adapt to different constraints and difficulties (Prime et al., 2020; Park et al., 2021; Killgore et al., 2020; Robles-Bello et al., 2020; Zhang et al., 2022). Barrett et al. (2021) found that resilience helped households cope with a stay-at-home order and thus elevated social, physical, mental and FWB during the pandemic. Killgore et al. (2020) found that exercise, getting out of the house, sleeping better, praying and receiving social support increased resilience among US adults. Chhatwani and Mishra (2021) looked at the link between financial fragility and financial optimism. In measuring optimism, they used a weighted score for perceptions about the economy’s future and the respondent’s expectations about their future.

A mediator is used to study underlying mechanism between two variables. Mediator helps us to understand the why and how part in an association. It links the cause to the effect. Thus, a mediator plays a dual role. (Wu and Zumbo. 2008). Psychological resilience acts as a mediator between income shock and financial-wellbeing. Mediator is an intervening variable between an exogenous variable and endogenous variable. Hence, we have proposed a hypothesis H2a between exogenous variable and mediator variable. Further, we have proposed H2b between mediator and endogenous variable. These hypotheses highlight the dual role of the mediator psychological resilience.

Based on the above, we propose the following hypotheses, with PR mediating the relationship between income shock and FWB:

H2a: COVID income shock is associated negatively with PR.

H2b: PR is associated positively with FWB in the pandemic.

### **5.3.3 Financial resilience**

We use Salignac's conceptualization of a multidimensional resource-based measure of financial resilience. In the following section, we discuss some of the empirical studies that look at each individual source of financial resilience.

#### ***5.3.3.1 Economic resources***

In times of difficulty, the most immediate concern is the availability of liquid cash in the form of regular income or savings. Prior literature has reported that low-income households have suffered the most during the financial shocks (O'Neill and Xiao, 2011; Bufe et al., 2022; Midões and Seré, 2022; Stavins, 2021). McKnight and Rucci (2020) looked at household level micro-data from 22 European countries and developed

indicators of financial resilience based on the amount of savings and debt relative to income. By these criteria, 15 out of the 22 countries reported low levels of financial resilience even in pre-pandemic times.

Some authors have used terms such as financial vulnerability and financial fragility as similar yet converse concepts to resilience. Financial vulnerability refers to the likelihood of an individual or household experiencing hardship when faced with a sudden income or expenditure shock (O'Connor et al., 2019). An individual is considered to be financially fragile if they expressed inability to arrange \$2000 within a stipulated time after facing a shock (Lusardi et al., 2021; Clark and Mitchell, 2022). Low income and minority households often lack funds for emergencies and are not financially literate; thus, they are not equipped to deal with sudden emergencies and tend to be financially fragile (Lusardi et al., 2021). Demertzis et al. (2020) noted that one in every three EU households was financially fragile due to low savings even before the pandemic struck. Older adults having access to retirement savings have greater well-being (Yeo and Lee, 2019; Suh, 2021), while others who are “asset rich” but “cash poor” tend to have lower FWB (Hean et al., 2013), since the assets they hold have low liquidity.

Based on the above, we propose the following hypotheses, with economic resources being a mediator variable between income shock and FWB:

H3a: COVID income shock is associated negatively with economic resources (FR-1).

H3b: Economic resources (FR-1) is associated positively with FWB in the pandemic.

### ***5.3.3.2 Financial inclusion***

Financial inclusion is defined as access to the formal financial sector for different financial services such as saving, borrowing, investing, insurance services, etc. Access to

banking system provides safety, security and transaction transparency, and may build financial resilience. Belayeth Hussain et al. (2019) and Sakyi-Nyarko et al. (2022) found that individuals with bank accounts were more financially resilient than those without, in Bangladesh and Ghana, respectively. In India, Swamy (2019) found that self-help groups (SHGs) helped in financial inclusion and social capital formation in rural areas of Karnataka. This in turn significantly improved the annual incomes and financial resilience of households. In another study of workers in the unorganized sector, financial inclusion led to higher FWB among street vendors (Nandru et al., 2021). In a study across three developing countries, Nepal, Cambodia and Vietnam, De Stefani et al. (2022) found that informal workers in urban sectors that did not have access to insurance coverage were most vulnerable to the COVID-19 shock. In recent times, mobile phone ownership has enhanced global access to digital financial services (Kass-Hanna et al., 2022). Some studies did not find a connection between financial inclusion and financial resilience (Temple and Williams, 2018). They observed that old individuals in Australia have developed financially resilient behaviors despite being excluded by several service providers.

Based on the literature on financial inclusion, we propose the following hypotheses, with financial inclusion being a mediator variable between income shock and FWB:

H4a: COVID income shock is associated negatively with financial inclusion (FR-2).

H4b: Financial inclusion (FR-2) is associated positively with FWB in the pandemic.

#### ***5.3.3.3 Financial knowledge and behavior***

Financial literacy has been considered to be one of the critical factors that improves an individual's financial resilience. When faced with a shock, financially literate individuals are able to evaluate the risks associated with the event and rely on their knowledge about

the availability and accessibility of resources (Salignac et al., 2019). Riitsalu and Murakas (2019) found that the subjective financial knowledge was a better predictor of FWB compared to objective measures of knowledge. While it has a protective role in preventing loss of financial resilience below a certain threshold, it does not enhance financial resilience *per se*. In the context of COVID-19, Erdem and Rojahn (2022) and Kijowsjki et al. (2021) found that high levels of financial literacy were associated with financial resilience during the COVID-19. Kass-Hanna et al. (2022) found that digital financial literacy plays a significant role in financial inclusion and financial resilience.

In addition to financial knowledge, some studies identified prudent financial behavior as being more important in promoting financial resilience (Kempson and Poppe, 2018; Carton et al., 2022). Self-discipline, non-impulsive behavior, self-control and planning for the future were important aspects of financial behavior that resulted in higher levels of FWB (Aydin and Selcuk, 2019; Carton et al., 2022; Ponchio et al., 2019; Tahir et al., 2022). Ponchio et al. (2019) and Carton et al. (2022) both found that self-control in spending decreased financial stress. Saving regularly and planning for the future was found to be important for future financial security (Goyal et al., 2021a, b; Kashapova, 2022). Goyal et al. (2021a, b) present a comprehensive review of extant literature on personal financial management behavior, finding that it improves both financial resilience and FWB.

Based on this literature review, we propose the following hypotheses, with financial knowledge and behavior being a mediator variable between income shock and FWB:

H5a: COVID income shock is associated negatively with financial knowledge and behavior (FR-3).

H5b: Financial knowledge and behavior (FR-3) is associated positively with FWB in the pandemic.

#### *5.3.3.4 Social capital*

Positive social interactions can provide a sense of security and help form an emotional support system during a crisis (Yeo and Lee, 2019). Social networks formed through community engagement facilitate social inclusion. Connections with family members, neighbors, community people, friends and employees at the workplace form a social network that provides psychological, financial and informational support (Bufe et al., 2022). Yeo and Lee (2019) investigated the influence of social capital on the relationship between perceived FWB and life satisfaction among individuals over 50 years of age and found its influence to be significant.

Social capital is important for financial resilience in developed countries (O'Neill and Xiao, 2011; Stevenson et al., 2022) as well as developing countries (Pacoma and Delda, 2019; Panigrahi and Suar, 2021; Jayasinghe et al., 2020; Sakyi-Nyarko et al., 2022). In a study of American adults after the 2008 recession, O'Neill and Xiao (2011) found that social capital was an important factor that boosted the resilience of the respondents. Stevenson et al. (2022) used data from the early COVID lockdown period in the UK. They found that individuals that identified with other members of their family were likely to experience greater levels of family financial efficacy, which further led to greater levels of FWB.

In the absence of formal social security schemes funded by the government in poorer countries, individuals rely on their communities to act as a buffer against sudden income shocks. Pacoma and Delda (2019) studied the effect of social capital on resilience post the Typhoon Haiyan in Philippines. In the Indian context, Panigrahi and Suar (2021)

found that social support, community embeddedness and collected efficacy affected the resilience of survivors of the Kerala floods in 2018. Jayasinghe et al. (2020) used the composite financial resilience measure to study the indigenous aboriginal population in Australia. They observed that economic resources (ability to arrange money to deal with unprecedented hardships) and social capital (support from community, family and friends) were positively associated with higher life satisfaction. Remittances received by Ghana households depict a solid social network contributing to better financial resilience, especially in rural areas, and the effect was more dominant among females (Sakyi-Nyarko et al., 2022).

Based on the review of relevant literature, we propose the following hypotheses, with social capital being a mediator variable between income shock and FWB:

H6a: COVID Income shock is associated negatively with social capital (FR-4).

H6b: Social Capital (FR-4) is associated positively with financial wellbeing in the pandemic.

We formulate a conceptual model where income loss due to COVID-19 is hypothesized to have a direct association with FWB during the COVID-19 pandemic, and an indirect association mediated through financial resilience and PR. *A mediator is used when we are trying to understand how and why an exogenous variable leads to an endogenous variable (Wu and Zumbo, 2008). Financial resilience and psychological resilience are used as a mediator because they will help in understanding how an individual's resilience helps in maintaining financial well-being in times of income shock induced by Covid-19.* The conceptualized model is depicted in Figure 5.1. The mediating role of the components of financial resilience and PR may be noted with the numbering scheme of the proposed hypotheses.

## 5.4 Data and Methodology

### 5.4.1 Questionnaire Construction, Data Collection and Model Building

We developed a scale for measuring the respondent's perception of their FWB based on the three dimensions proposed by Kempson and Poppe (2018), which included their ability to (1) meet commitments, (2) feel comfortable and (3) resilience. Using the framework developed by Salignac et al. (2019), we included questions to measure each of the four dimensions, namely access to economic resources, level of financial inclusion, financial knowledge and access to social networks or social capital<sup>10</sup>. In terms of the methodology, we use financial resilience and PR as mediator variables between income loss and FWB during the pandemic. Such mediating relationships have been explored by Tahir et al. (2022) and Suh (2021) albeit in different contexts.

We used the Brief Resilience Scale (Smith et al., 2008) to measure the capacity of individuals to recover from stress and people suffering from health issues (Smith et al., 2008). The survey also collected socioeconomic and demographic information for the respondents. The final questionnaire had 54 questions that were shared via online versions of the Microsoft form, which was administered in Hindi, English, and Bengali. Data were collected via convenience sampling. A total of 223 responses were collected in the first round between March 2022 and May 2022. In a second round, between October 2022 and November 2022, another 147 responses were collected. So the total sample consisted of

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<sup>10</sup> Several authors, have used unidimensional measures of financial resilience. This typically consists of a question about the ease with which the respondent might be able to raise a fixed amount of money, say \$2000 / \$3000 in the event of an emergency (Clark and Mitchell, 2022; Tahir et al., 2022; Erdem and Rojahn, 2022). However, in the context of a developing country, this is a large amount of money, which many individuals may find difficult to raise. Further, one of our research objectives was to test the efficacy of financial literacy, financial inclusion and social capital in providing financial resilience to an individual in the wake of COVID-19. The multi-dimensional conceptualization helps to answer these questions. Inclusion of these constructs would lead to more reliable estimates of individual causal coefficients. For these reasons, we use the multi-dimensional measure proposed by Salignac et al., (2019).

370 respondents. Data were collected from the following eleven cities: Delhi, Mumbai, Kolkata, Bangalore, Hyderabad, Pune, Indore, Kanpur, Lucknow and Agra.

We used PLS-SEM (Partial Least Square Structural Equation Modeling) instead of CB-SEM (Covariance Based Structural Equation Modeling) as PLS-SEM can work on non-normal data and a small sample size. Our model consists of formative as well as reflective latent constructs. Hair et al. (2014) recommended that sample size should equal more than ten times the largest number of formative or reflective indicators. In our conceptual model, there are 11 hypotheses or causal pathways in the inner model. Given that our sample size is larger than 110 (10 times the total number of hypotheses to be tested), the data are adequate for PLS-SEM analysis. After collection of the primary data and initial data cleaning, we built measurement models using confirmatory factor analysis. Next, we built several path models to test the conceptual theoretical model and hypotheses proposed earlier. The entire analysis was conducted using SmartPLS (v. 3.3.9) for the path models. We present the results of our analysis in the following section.

## 5.5 Results

### 5.5.1 Descriptive Statistics

Some descriptive statistics for respondents' socio-economic and demographic characteristics are given below in Table 5.1.

**Table 5.1: Socioeconomic and demographic characteristics of respondents**

Socio-economic / demographic variable	Categories	Number of respondents	Percentage respondents
Age	Age below 25	127	34%
	Age between 25-40	195	53%
	Age between 40-55	38	10%
	Age greater than 55	10	3%

Gender	Males	246	66%
	Females	124	34%
Marital Status (MarSts)	Single	246	66%
	Married	124	34%
	Divorced		
	Widowed		
Education	Less than graduation	44	12%
	Under-graduation	98	26%
	Post-graduation	228	62%
Area of Residence	Rural	75	20%
	Urban	295	80%
Income Range (IncRng)	Less than 10 thousand rupees per month	24	6%
	10,000-20,000 rupees	49	13%
	20,000-30,000 rupees	41	11%
	30,000-50,000 rupees	66	18%
	Greater than 50,000 rupees	190	51%
Income Loss due to COVID	Yes	211	57%
	No	159	43%

In the sample, two-thirds of the respondents (66%) were males. In terms of age, one-third of respondents were below 25, about half were in the range of 25–40 while the rest were older. This is in keeping with the Indian demographic age structure where 44% of Indians are below 25, 45% were between 25 and 55 years of age, and the rest were older<sup>11</sup>. Most of the respondents were well educated with 62% being postgraduates. There was representation of respondents across all income ranges, though there was greater representation from respondents in higher income ranges. This sample is biased toward a more educated and higher income cohort compared to the average Indian. Most of the respondents were also from urban rather than rural areas. About half of the respondents had suffered income losses during the COVID pandemic.

<sup>11</sup> [https://www.indexmundi.com/india/age\\_structure.html](https://www.indexmundi.com/india/age_structure.html)

## 5.5.2 Measurement Model

The first step in our analysis was confirmatory factor analysis, used to identify the latent constructs. The measurement model yields five reflective constructs, which are named as “Financial Wellbeing,” “Financial Inclusion,” “Financial Knowledge and Behavior,” “Economic Resources” and “Psychological Resilience.” We retained items which had a loading of at least 0.5 on the corresponding latent construct. Table 5.2 depicts the outer loadings for the following reflective latent constructs.

Financial well-being (FWB): Six items loaded on the factor named FWB. Each of these questions were the respondent’s perceived feelings about their current financial state. Factor loadings ranged from 0.54 to 0.86. Cronbach’s alpha for this factor was 0.907 and the composite reliability was 0.910, indicating high levels of internal consistency.

Economic resources (FR-1): Six items loaded on this factor with factor loadings varying from 0.627 to 0.789. The four items that had the highest loadings were all related to the respondent’s access to liquid cash in case of emergencies. Cronbach’s Alpha was 0.867 indicating high levels of internal consistency.

Financial inclusion (FR-2): This construct refers to the access to financial services, such as online banking, having a debit card and having access to mobile banking. The outer loadings range from 0.53 to 0.745. Cronbach’s alpha of this factor was 0.677, which is moderate.

Financial knowledge and behavior (FR-3): Seven items loaded on this factor with factor loadings ranging from value of more than 0.465 to 0.808. Cronbach’s alpha for this factor was 0.802, indicating a high construct validity level.

Social capital (FR-4): This was a single item factor. The only item that this factor comprised of was whether the respondent depended on their friends.

Psychological resilience (PR): Six items from the brief resilience scale loaded on a latent construct that measured the individual's ability to bounce back from adverse situations. Cronbach's alpha for this construct is high at 0.826.

Income shock: This was a single item factor related to the extent to which the respondent had suffered income loss during COVID. It was measured on a Likert scale ranging from 1 to 5.

**Table 5.2: Factor loading matrix – measurement model for reflective constructs**

Item No.	Questions	Financial Wellbeing Post COVID	Economic Resources (FR-1)	Financial Inclusion (FR-2)	Financial Knowledge & Behaviour (FR-3)	Psychological Resilience (PR)
FWB1	I am not worried about my current financial situation	0.858				
FWB2	In general I am stressed about my personal finances	0.851				
FWB3	I am not worried about meet normal monthly living expenses.	0.837				
FWB4	I can go for movie or dinner when I want without worrying	0.830				
FWB5	I am managing financially and do not wait for the next salary.	0.805				
FWB6	I do not need to borrow to meet my regular monthly expenses.	0.536				
ER8	It would not be difficult for me to arrange 1 lakh in case of emergency		0.789			
ER3	I have savings equivalent to 2-3 month's salary if I lost my job		0.781			
ER5	I have sufficient savings in my bank account.		0.768			
ER6	I can arrange money by liquidating my financial assets (FD, stocks, etc.)		0.710			
ER1	I am able to meet my day to day living expenses easily.		0.655			
ER2	I am confident that I will not lose my job suddenly.		0.627			
FI2	I use online banking			0.745		
FI4	I use a debit card			0.632		
FI5	I use a mobile wallet/UPI (Phonepe, GPay, Paytm, BHIM, etc.)			0.530		
FKB6	I know how to invest in share market in order to grow my money.				0.808	
FKB7	I am confident about my ability to take care of my finances in present and future.				0.673	
FKB2	I know how to do basic banking tasks.				0.625	
FKB5	I compare interest rates from different sources while taking home loan/car loan.				0.594	
FKB1	I know how to open a bank account				0.571	
FKB3	I take inflation (rising prices) into account when planning for the future.				0.465	
BR6	I do not take a long time to get over set-backs in my life					0.783
BR1	I tend to bounce back quickly after hard times					0.755
BR4	It is not hard for me to snap back when something bad happens					0.680
BR2	I do not have a hard time making it through stressful events					0.644
BR3	It does not take me long to recover from a stressful event					0.639
BR5	I usually come through difficult times with little trouble					0.489
	<b>Composite Reliability</b>	0.910	0.868	0.673	0.794	0.829
	<b>Cronbach Alpha</b>	0.907	0.867	0.677	0.802	0.826

Table 5.3 gives the correlations between different latent constructs in the measurement model. The only two constructs with a high level of correlation were FR-1 (economic resources) and FR-3 (financial knowledge and behavior). The high levels of multicollinearity between these two-variable resulted in relatively high VIF (variance inflation factor) associated with FR-3, of 4.175.

**Table 5.3. Correlation Matrix for Latent Variables**

<b>Latent Variables</b>	<b>Post COVID FWB</b>	<b>COVID Income Loss</b>	<b>Economic Resources (FR-1)</b>	<b>Financial Inclusion (FR-2)</b>	<b>Financial Knowledge Behaviour (FR-3)</b>	<b>Social Capital (FR-4)</b>	<b>Psychological Resilience</b>
<b>FWB</b>	1.000	-0.339	0.757	0.306	0.446	0.244	0.552
<b>Income Loss</b>	-0.339	1.000	-0.307	-0.185	-0.182	-0.091	-0.141
<b>FR-1</b>	0.757	-0.307	1.000	0.544	0.798	0.308	0.467
<b>FR-2</b>	0.306	-0.185	0.544	1.000	0.709	0.365	0.119
<b>FR-3</b>	0.446	-0.182	0.798	0.709	1.000	0.387	0.396
<b>FR-4</b>	0.244	-0.091	0.308	0.365	0.387	1.000	0.194
<b>Psychological Resilience</b>	0.552	-0.141	0.467	0.119	0.396	0.194	1.000

The reliability and validity metrics for the constructs identified in the measurement model are given below in Table 5.4. Cronbach's alpha for each of the latent constructs (except financial inclusion) is above 0.7. Hair et al. (2019) suggest that this is an acceptable threshold criterion for checking internal consistency, even though they contend that for exploratory research a threshold of 0.6 may be acceptable. The composite reliability values (upper bound for internal consistency) for each of the constructs lies in the range of 0.67–0.92. For measuring the discriminant validity, we look at the HTMT criterion as given in Table 5.5 below. The only case of high HTMT (heterotrait-monotrait) ratio is 0.802, which is between FR-3 (financial knowledge) and FR-1 (economic resources), though this is below the acceptable threshold of 0.9 (Hair et al., 2019).

**Table 5.4. Internal Consistency and Reliability**

<b>Internal Consistency Reliability</b>				
<b>Reflexive Constructs</b>	<b>Cronbach's Alpha</b>	<b>rho_A</b>	<b>Composite Reliability</b>	<b>AVE</b>
<b>Financial Wellbeing Post COVID</b>	0.907	0.920	0.910	0.631
<b>FR-1 Economic Resources</b>	0.867	0.872	0.868	0.525
<b>FR-2 Financial Inclusion</b>	0.677	0.689	0.673	0.412
<b>FR-3 Financial Knowledge &amp; Behaviour</b>	0.802	0.811	0.794	0.398
<b>Psychological Resilience</b>	0.826	0.840	0.829	0.451

**Table 5.5. Discriminant Validity – HTMT Ratio Matrix**

<b>Latent Variables</b>	<b>COVID Income Loss</b>	<b>FR-1 Economic Resources</b>	<b>FR-2 Financial Inclusion</b>	<b>FR-3 Financial Knowledge &amp; Behaviour</b>	<b>Post COVID Financial Wellbeing</b>	<b>Psychological Resilience</b>
<b>FR-1</b>	0.307					
<b>FR-2</b>	0.185	0.539				
<b>FR-3</b>	0.177	0.802	0.704			
<b>FWB</b>	0.340	0.755	0.305	0.438		
<b>PR</b>	0.141	0.473	0.138	0.396	0.553	
<b>FR- 4</b>	0.091	0.309	0.371	0.391	0.240	0.198

### 5.5.3 Structural Model

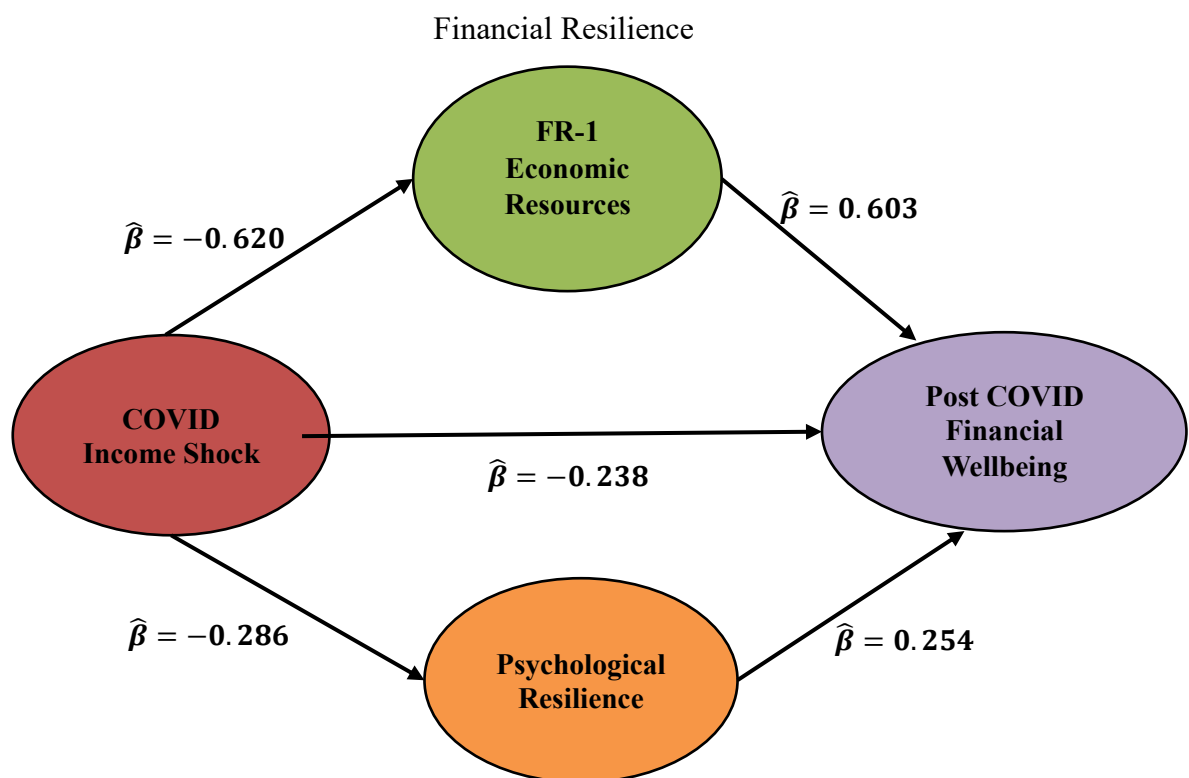
The proposed hypotheses about the relationship between constructs were tested by fitting the structural model. Several models were built in an iterative manner. We first included all the constructs as specified in the conceptual model and gradually eliminated those that did not have statistically significant effect or led to poor model fit.

Two dimensions of financial resilience, “financial knowledge and behavior” and “economic resources,” had some multicollinearity. When both were included in the model, standard errors associated with both key constructs were inflated and path coefficients were found to be statistically insignificant. Hence, we dropped the financial

knowledge and behavior variable from the model. “Social capital,” which was a single item construct, was found to be statistically insignificant. Several models were built with socioeconomic and demographic variables that were included as controls, the results of which have not been included here for brevity. However, their effects on financial wellbeing was not statistically significant – hence they were dropped from the final model. Figure 5.2 depicts the final fitted model. In the figure, we have eliminated the components of financial resilience that were found to be statistically not-significant. This was done for greater clarity of presentation.

The results of the tests for the proposed hypotheses are given in Table 5.6 below.

**Figure 5.2. Fitted model for Post COVID FWB**



The results of the tests for the proposed hypotheses are given in Table 5.6 below:

**Table 5.6. Result of Hypotheses Tested in Conceptual Model**

No	Hypotheses statement (statement of the alternate hypothesis)	Test result
H1	Income shock has a negative effect on post COVID FWB	Accepted*
H2a	Income shock has a negative effect on psychological resilience	Accepted*
H2b	Psychological resilience has a positive effect on post COVID FWB	Accepted*
H3a	Income shock has a negative effect on economic resources	Accepted*
H3b	Economic resources has a positive effect on post COVID FWB	Accepted*
H4a	Income shock has a negative effect on financial inclusion	Rejected
H4b	Financial inclusion has a positive effect on post COVID FWB	Rejected
H5a	Income shock has a negative effect on financial knowledge & behavior	Rejected
H5b	Financial knowledge & behavior has a positive effect on post COVID FWB	Rejected
H6a	Income shock has a negative effect on social capital	Rejected
H6b	Social Capital (FR-4) has a positive effect on post COVID	Rejected

\* A technically accurate way of stating this is that the null (converse) hypothesis was rejected.

Table 5.7 shows the corresponding path coefficients, and the *p* values associated with the test if the corresponding hypotheses. Income shock is negatively associated with FWB. Income shock has a statistically significant and large negative relation with economic resources. Economic resources has a statistically significant and large positive relationship with FWB. Thus, income loss has an indirect negative association with FWB when mediated through economic resources. The effect size of this indirect effect (-0.37386) is larger than the direct effect. Income shock has a statistically significant and small negative association with PR. PR in turn has a small positive association with FWB.

Financial inclusion and financial knowledge and behavior do not have a statistically significant association with FWB. Social capital also does not have a statistically significant association with FWB.

While interpreting the results, it should be noted that our sample was biased toward somewhat more educated and higher income and urban respondents. Most of the respondents reported high levels of financial inclusion. Further many of our respondents are from urban centers, and live in smaller nuclear family units that may rely less on social support. Thus, the results of this study are representative of educated, higher income and urban Indian adult population.

**Table 5.7. Path Coefficients of Fitted Model**

Path	Original sample (O)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values
Income Shock -> Financial Resilience	-0.620	0.097	6.410	0.000
Income Shock -> Financial Wellbeing Post COVID	-0.238	0.088	2.698	0.007
Income Shock -> Psychological Resilience	-0.286	0.111	2.584	0.010
Financial Resilience -> Post COVID FWB	0.603	0.058	10.442	0.000
Psychological Resilience -> Post COVID FWB	0.254	0.050	5.062	0.000

Hair et al. (2019) indicates that adjusted  $R^2$  values above 0.75 indicated good fit while  $R^2$  values above 0.5 indicated moderate fit. In our fitted model for FWB in this study the  $R^2$  is 0.637, which indicates that the model has moderate fit. The effect size (Hair et al., 2019) of the association of economic resources with financial well-being was  $f^2 = 0.486$  ( $>0.35$ ), indicating a large effect. The effect size of the association of psychological resilience with financial well-being was  $f^2 = 0.170$  ( $>0.02$ ,  $<0.35$ ), indicating a medium effect. The effect sizes of income shock on economic resources was  $f^2 = 0.154$ , indicating a medium effect. The effect size of income shock on FWB was  $f^2 =$

0.053(>0.02), indicating a medium effect. The effect size of income loss on psychological resilience was  $f^2 = 0.013$  (<0.02), indicating a small effect.

## 5.6 Conclusion

The COVID-19 pandemic precipitated an unprecedented health as well as economic shock globally. The economic impact of COVID on individuals and households has been non-uniform. The poorer and more marginalized sections of the population faced greater risks of unemployment and endured larger income shocks. The global economy started recovering in late 2021, with US GDP returning to pre-pandemic levels in September 2021 (Barnes et al., 2021). India has also seen a strong recovery since the second quarter of 2021<sup>12</sup>. As the economy starts recovering, it is important to understand how PR and financial resilience have enabled individuals to recovering a sense of well-being with regard to their finances. Earlier studies have looked at the socioeconomic and demographic characteristics of the affected segments of society. However, the role of resilience traits in subjective FWB during the pandemic has not been researched.

Using primary data from a sample of 370 individuals, we estimated partial least square structural equation path models to test the proposed conceptual model. We find that income loss had a direct negative association with FWB. It also had an indirect negative relation with FWB mediated through both financial resilience and PR. Of the four components of financial resilience, only economic resources had a statistically significant relationship with FWB, and this association was relatively large and positive. The important role of economic resources in financial resilience in our study echoes similar findings among several other studies that found the impact of COVID to be higher among

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<sup>12</sup> <https://www.theweek.in/news/biz-tech/2022/06/11/india-economy-recovered-strongly-despite-three-covid-waves-says-us-treasury-report.html>

the poorer sections of society (Kansiime et al., 2021; Midões and Seré, 2022; Stavins, 2021; Porter and Bowman, 2021). PR also had a statistically significant relationship with FWB, even though the magnitude of this effect was smaller than economic resources. This is supported by other studies (Barrett et al., 2021; Ali et al., 2021; Bono et al., 2020).

Our results indicate that the other dimensions of financial resilience, such as financial inclusion, financial knowledge and behavior and social capital, were not associated with FWB. The relative ineffectiveness of financial literacy in improving resilience is supported by several authors (Clarke, 2015; Steinert, 2018; Ponchio et al., 2019; West et al., 2021). Steinert (2018) reported that financial literacy programs were more effective in promoting resilience when combined with social and psychological factors. Ponchio et al. (2019) found that financial knowledge was not important for financial resilience compared to psychological traits like future orientation. West et al. (2021) found that income was a more important predictor of FWB than financial literacy.

It is also interesting that social capital was not found to affect FWB. In a collectivistic country like India, community support is usually considered important in fostering resilience (Kayser et al., 2008). In the case of COVID, however, community support seems to have weakened. This may have been partly due to the risk of infection and death and partly due to the strict lockdown measures imposed by the government. Individuals had to depend on their own economic resources and psychological fortitude in the absence of community support. We propose the following explanation for the finding from our study that “economic resources” was the only component of financial resilience that was associated with FWB. Financial inclusion and financial knowledge has been found to be somewhat useful for building resilience for future shocks (Steinert, 2018). However, a sudden shock such as the COVID imposed health hazards as well as economic restrictions

such as lockdowns. Not having the ability to earn or depend on community support, the affected individual is concerned primarily with their own and their family's survival. They draw upon their own savings and thus, this is the primary component of financial resilience that helps in preserving wellbeing. In this context, we observe the distinction made by some authors between current and future FWB (Riitsalu and van Raaij, 2023). Of the different dimensions of financial resilience, economic resources may be relevant for current FWB, while financial inclusion and financial knowledge may be relevant for FWB.

Our findings have important policy implications. Kaya (2020) and Porter and Bowman (2021) emphasize the need for providing adequate safety nets for the disenfranchised and marginal sections of society. Clarke (2015) argues that financial resilience of individuals cannot be solved by financial literacy programs because the poorest sections of society do not have the financial resources or the psychological or social support that enable them to save or invest wisely, even if they had the adequate knowledge. Further, it transfers the responsibility of dealing with an economic shock solely on the person who is facing the shock. When the affected individual is from an already disadvantaged section, an income shock increases their individual exposure to risk. At such times, it is important for the government to provide a safety net for the poorest sections of society. This may be in the form of unemployment insurance or a tax-waived provident fund that employees can access in the event of a disaster. Thus, during times of acute emergency, financial inclusion or financial literacy measures may not be effective. However, in addition to a financial safety net, it is important to provide psychological counselling and to broadcast messages of hope and optimism, to restore consumer confidence.

One of the limitations of this study is that the data was collected via convenience sampling. Hence, it may not be representative to large sections of the population. However, the analysis based on the sample yielded interesting insights into the relationship between different elements of financial resilience, PR and FWB during the COVID-19 pandemic. Our findings have important policy implications. In the aftermath of a shock, governmental support in the form of aid and economic stimulus packages for the most disadvantaged sections of society would enable greater financial resilience and promote FWB.

## Chapter 6: Conclusion

Financial wellbeing is an essential component of the overall wellbeing of an individual. An individual's financial wellbeing hinges on their ability to meet current and future financial goals through earnings, saving, budgeting and investing behavior. Recent shocks such as COVID-19 pandemic, geo-political wars, natural disasters and mass layoffs have resulted in a decline in financial wellbeing amongst the poorer and vulnerable sections of society. Against this backdrop, we are interested in understanding the factors that contribute to financial behavior and wellbeing of individuals.

Extant research has largely focused on the impact of cognitive factors such as financial literacy and financial knowledge, and behavioral factors such as prudence, and self-control on financial wellbeing. A significant factor that affects behavior is affect or emotions and the psychological disposition of an individual. It has been noted that despite the prevalence of financial literacy and awareness programs, these have limited efficacy and many individuals continue to take financial decisions based on their instinctive feelings towards consumption, savings and risk. These feelings are often guided by social norms, especially those that have been inculcated by parents in their childhood. The extent to which these socialization processes i.e. parental influence guides the financial decisions of individuals in their adulthood has not been studied in extant literature.

The aim of this thesis is to specifically understand the role of parental socialization in the formation of attitudes that guide financial behaviors and have a large influence on the financial wellbeing of individuals in India. We have established from our research studies that affective factors such as money attitudes, risk attitudes, psychological resilience play a significant role in shaping financial behavior and wellbeing.

The key antecedents of affective factors are family values, beliefs and social norms. We conducted a systematic review of the existing literature on financial socialization, a key social process to learn about finances, through a systematic literature review on financial socialization. Through the in-depth analysis of highly influential research studies, we found the research gap that the psychological and social antecedents of financial behavior and wellbeing are unexplored in literature in Indian context. Also, there are scarce studies that have looked at affective factors of financial behaviors and wellbeing of individuals in Indian context.

The insights from the literature review show that there are scarce studies that have examined formation of psychological factors influencing financial behaviour and financial well-being. One of the research gaps is there is no study that examines the psycho-social antecedents of money attitudes and its association with financial behaviour and financial well-being. The research objectives investigated are: (i) to understand the intergenerational transmission of money attitudes and its association with risk avoidance attitude and further risk investment preferences of young adults. (ii) to examine the intergenerational transmission of money attitudes and its association with the financial well-being of young adults, (iii) to investigate the role of psychological resilience along with financial resilience in mitigating the influence of income shock on financial well-being.

The first two empirical studies focus on the intergenerational transfer of money attitudes from parents to their adult children. For this, we collect primary data from 251 parent-child dyads. This novel method of data collection allows us to analyze money attitudes reported independently by parents and children resulting in more accurate reporting as well as providing support for the existence of intergenerational transfer within the same family. The use of parent-child dyad data to investigate the attitudinal aspects of financial

behaviors and financial wellbeing has been a methodological contribution from the chapter 3 and chapter 4.

In both of these studies, we observed that the money attitudes of parent and their corresponding child were positively correlated. Investment preferences among parent and child cohorts were similar. Parental power-prestige influenced the financial risk avoidance attitude among children negatively. Parental anxiety and parental retention-time had a significant positive influence on the child's financial risk avoidance attitude. The financial risk avoidance attitude among parents significantly influenced their corresponding children's financial risk avoidance attitude, and their investment preferences. In the second study of intergenerational transfer equation models revealed that young adult's anxiety money attitude is directly negatively associated with his/her own financial well-being.

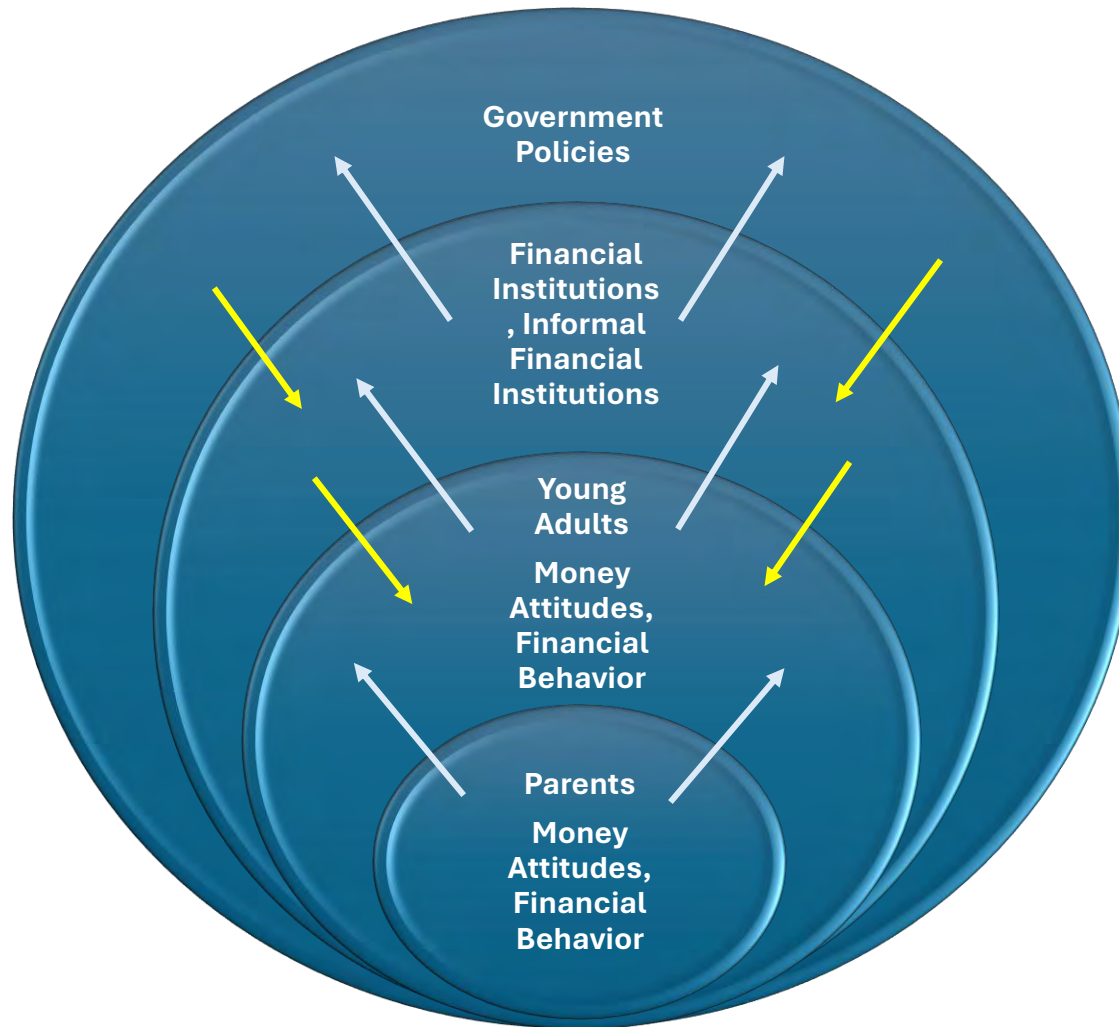
In the final chapter, we investigate the impact of financial resilience and psychological resilience on financial wellbeing post COVID-19. We find that income shock has a negative influence on financial well-being, mediated by financial resilience and psychological resilience. The only dimension of financial resilience that enabled financial wellbeing was economic resources. Psychological resilience had a smaller effect on financial wellbeing. This highlights the importance of financial safety nets in times of financial distress. Such safety nets can be built through personal savings, timely government financial aids and insurance.

The literature review (Chapter 2) identified that no study has investigated the psychosocial antecedents of money attitudes and their association with financial outcomes, such as financial behavior and well-being. Study 1 (Chapter 3) focused on understanding the intergenerational transmission of money attitudes and their association with risk attitudes

and consequent risk preferences. Study 2(Chapter 4) focused on understanding the intergenerational transmission of money attitudes and their association with financial well-being. The results from Study 1 depict that the set of money attitudes, such as power-prestige, anxiety, and retention time, contributes to risk avoidance attitudes, which further shape decisions regarding the investment preferences of young adults. Study 2 reveals that a distinct set of financial attitudes, including power-prestige, distrust, and anxiety, significantly impacts the financial well-being of young adults. Both studies established that intergenerational transmission of financial attitudes exists in India. Study 3 (Chapter 5) examines the role of psychological resilience and financial resilience in mediating the effect of COVID-19-induced income shocks on the financial well-being of individuals in India. The three studies are interconnected, as each examines the relevance of intrinsic factors and their contribution to shaping financial outcomes, including financial behavior and well-being. Studies 1 and 2 examine how young adults have to worry only about day-to-day or monthly finances. Study 3 was conducted during the COVID-19 pandemic, a particularly challenging time globally.

To conclude the thesis, we propose a conceptual model (Figure 6.1) of the way intrinsic and extrinsic factors affect the financial wellbeing of individuals. Parental money attitudes impact the money attitudes of young adults. These money attitudes, in turn, impact the consumption, saving, and investing behavior of individuals which in aggregate impact the external financial system and the government. Meanwhile, governmental policies and institutional factors also impact the individual and moderate their behavior. It is important to consider this bi-directional relationship to understand how to better regulate the behavior of individuals. This will impact individual financial wellbeing as well as better functioning of the financial system overall.

In a nutshell, we find that it is not just the external factors that matter for financial wellbeing, it's the internal attitudes towards money that are shaped during our childhood that affect our risk avoidance behaviours, our investment preferences and financial wellbeing during normal time period as well as after experiencing an income shock. Policies also assume that individual behaviour can be shaped using cognitive or external interventions such as increasing financial literacy, improving financial inclusion. However, this kind of approach towards studying human behaviour is lacking because it does not treat the individual as someone who has agency, is shaped by their environment and who will continue to behave in apparently irrational ways even if this means that they will not be able to deal with financial shocks or they will have lower financial wellbeing. For policymakers, the major practical implication is that parental participation in financial literacy programs along with their child can help such programs to be more effective. Further, policymakers and government need to form policies and take measures focusing on ensuring financial optimism and economic resources safety net for the masses.



**Figure 6.1 A Conceptual Model of the Interrelationships of Individuals within the Financial Ecosystem**

Note: Yellow arrows: Environmental factors affecting the individual, Light blue arrows: Individual factors affecting the system

**Table 6.1 Summarization of the studies conducted**

	<b>Study 1</b>	<b>Study 2</b>	<b>Study 3</b>
<b>Research Motivation</b>	Lack of studies in literature investigating affective factors such as money attitudes and its intergenerational transfer among young adult consumers, its association with risk avoidance attitude and consequent effect on risk preferences.	Lack of studies investigating intergenerational transmission of money attitudes responsible for resilience building financial behaviors and its impact on financial wellbeing.	Lack of studies in literature that have looked at psychometric variables such as financial and psychological resilience on post COVID financial wellbeing.
<b>Research Question</b>	RQ1: Do parents and their adult children exhibit similar attitudes towards money? RQ2: Do parents and their adult children exhibit similar attitudes towards risk? RQ3: Do parents and their adult children exhibit similar preferences with respect to investment / consumption choices? RQ4: Do money attitudes and risk attitudes of parents affect risk attitudes of their adult children? Are these effects mediated by the adult child's own money and risk attitudes?	RQ Do money attitudes and financial well-being of parents affect financial well-being of adult child? Are these effects mediated by the adult child's own money attitudes?	RQ1: Did income loss experienced as a consequence of COVID affect post COVID financial wellbeing of individuals? RQ2: Did psychological resilience ameliorate the impact of income loss for affected individuals? RQ3: Did financial resilience reduce this impact for affected individuals?
<b>Unit of analysis</b>	251 Parent-child dyads	251 Parent-child dyads	370 Individuals
<b>Methodology</b>	Primary Data, Structural equation modelling using Smart PLS 4.0	Primary Data, Structural equation modelling using Smart PLS 4.0	Primary Data, Structural equation modelling using Smart PLS 4.0
<b>Key Results</b>	We find that the money attitudes of parent and their corresponding child were positively correlated. We also find investment preferences among parent and child cohorts were similar. We further find that few parental money attitudes are associated with child's risk avoidance attitudes and consequent risk investment preferences.	We find that young adult's anxiety money attitude is directly negatively associated with his/her own financial well-being. The parent power-prestige money attitude and distrust money attitude influenced anxiety money attitude of the corresponding adult child and the association was mediated by child's corresponding money attitude.	We find that income shock has a negative influence on financial well-being and the effect is mediated by financial resilience and psychological resilience.

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