Tomas Bata University
Faculty of Management and Economics

Doctoral Thesis

Determinants of financial capability and financial satisfaction among low-income individuals: A case study of India

Determinanty finanční způsobilosti a finanční spokojenosti jedinců s nízkými příjmy: Případová studie Indie

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Degree Programme: P 6202 Economic Policy and Administration

Degree Course: 6202V010 Finance

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Zlin, October 2022

Published by Tomas Bata University in Zlín in the Edition Doctoral Thesis Summary.

The publication was issued in the year 2022.

Key words in English: *Financial Behaviour*, *Financial Attitude*, *Financial knowledge, Financial Inclusion, Financial advice, financial Capability, Financial Satisfaction, Economic Hardship, Risk Tolerance, and India.*

Klíčová slova: *finanční chování, finanční přístup, finanční znalosti, finanční začlenění, finanční poradenství, finanční kapacita, finanční* spokojenost, *venkovská Indie, příjem a vzdělání*

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ABSTRACT

Increasing financial market complexities, a highly volatile and unpredictable environment, economic ups and downs, and unexpected trauma like the pandemic of COVID-19, and many others, are giving substantial challenges to individuals to achieve and maintain their financial stability and well-being in recent times. Experts around the globe are soliciting financial literacy improvement, and indeed a lot has been done too. However, people still lack, and merely financial literacy may not be enough alone. Recently, researchers have been putting forward the concept of financial capability, which is not much research yet. Based on the capability theory, experts advocate that financial capability building is crucial for financial stability and asset building. Financial literacy deals only with the individual's internal ability and does not cover what is needed beyond the individual internal abilities that capability fills. Here comes the concept of financial capability. Since the field of financial capability is still not researched much, it needs more studies and research to extend and find what else can contribute apart from the existing factors affecting financial capability building and financial satisfaction. Therefore, the present thesis investigates the key determinants that can affect financial capability building under the scope of capability theory given by Amartya Sen and Nussbaum and the concept of financial capability by Johnson and Sherraden. Limited studies have measured a few factors on financial capability in different studies. Moreover, most of the studies on financial capability are limited to the developed nations.

A significant portion of the low-income population dwells in South Asia regions, and this segment is always at risk of financial vulnerability and financial instability. A slight economic shock can shake their stability and lead to low financial satisfaction. Specifically, though the GDP is over three trillion US dollars, India is still one of the homes of low-income individuals due to the second highest population and suffers from inequality problems. It attracts research on how an individual's financial capability and satisfaction can be improved. Hence, the concern is what can affect financial capability and financial satisfaction with the focus on developing countries, which deals with more chunk of the population with low income.

Furthermore, in the Indian sub-continent, the literature on this theme barely exists. To the extent of the researcher's knowledge, no study has extensively

explored what factors can play a crucial role in individuals' financial capability building and financial satisfaction in developing countries, specifically in the Indian subcontinent cultural environment based on the capability theory. Against this background, the proposed dissertation sought to address the missing gap by developing a comprehensive research model regarding the determinants of financial capability and financial satisfaction among low-income individuals in India.

The study was conducted in Uttar Pradesh, the most populated region, and most of the population belongs to the low-income category. The study used a mixed-method approach. The research strategy used in this thesis is expert opinion for qualitative and survey method for quantitative. The sample frame for qualitative consists of industry experts who frequently deal with them and understand what affects low-income individuals' financial literacy, capability and satisfaction. The quantitative approach is a major part of the analysis to test the formulated hypothesis. Five hundred ten questionnaires were collected, and only 407 samples were used after the data cleaning. Data analysis is done through Microsoft Excel, SPSS 23 and SmartPLS 3.0. The partial least square (PLS) structural equation modelling (SEM) method is performed to examine and test the formulated research model. Opinions are collected from eleven experts through an interview guide for qualitative analysis.

The main findings from the quantitative analysis suggest that: (i) Financial advice and counselling, financial inclusion, financial knowledge, and Economic hardship have a positive effect on financial capability. (ii) Interestingly, financial attitude and financial behaviour do not have a positive effect on financial capability. (iii) Financial behaviour, Financial capability, Economic hardship and risk tolerance hypotheses are supported by the outcome of the analysis. Under qualitative text analysis, findings support and validate the quantitative analysis results and add more factors for future studies.

The work contributes to the financial literacy, financial capability and financial satisfaction literature under the personal finance category and enriches the existing literature by filling in the identified research gaps. The research implications, the study's novelty, limitations and future research are highlighted.

ABSTRAKT

Rostoucí složitost finančních trhů, vysoce nestabilní a nepředvídatelné prostředí, ekonomické vzestupy a pády a neočekávaná traumata, jako je pandemie COVID-19 a mnoho dalších, představují v poslední době pro jednotlivce značné výzvy k dosažení a udržení finanční stability a blahobytu. Odborníci na celém světě se přimlouvají za zlepšení finanční gramotnosti a skutečně se také hodně v této oblasti udělalo. Lidem však stále chybí hlubší znalosti a pouhá finanční gramotnost nemusí sama o sobě stačit. V poslední době vědci předkládají koncept finanční způsobilosti, který zatím není příliš prozkoumán. Na základě teorie schopností odborníci zastávají názor, že budování finančních schopností je klíčové pro finanční stabilitu a nabývaní majetku. Finanční gramotnost se zabývá pouze vnitřní schopností jednotlivce a nezahrnuje to, co je potřeba mimo vnitřní schopnosti jednotlivce, které tato schopnost naplňuje. Zde přichází na řadu koncept finanční schopnosti. Vzhledem k tomu, že oblast finančních schopností není dosud příliš prozkoumána, je třeba ji rozšířit o další studie a výzkumy a zjistit, co dalšího může ještě přispět – kromě stávajících faktorů ovlivňujících budování finančních schopností a finanční spokojenost. Proto tato práce zkoumá klíčové determinanty, které mohou ovlivnit budování finanční schopnosti v rámci teorie schopnosti dané Amartyou Senem a Nussbaumovou a konceptu finanční schopnosti Johnsona a Sherradena. V různých studiích bylo v omezené míře zjišťováno několik faktorů ovlivňujících finanční schopnost. Navíc studie o finanční schopnosti provádějí převážně vyspělé státy ve svých regionech a rozvojové státy se na ni musí ještě zaměřit.

Značná část obyvatel s nízkými příjmy žije v jihoasijských regionech a tento segment je vždy ohrožen finanční zranitelností a finanční nestabilitou. Mírný ekonomický šok může otřást jejich stabilitou a vést k nízké finanční spokojenosti. Konkrétně Indie, ačkoli její HDP přesahuje tři biliony amerických dolarů, je stále jedním z domovů osob s nízkými příjmy kvůli druhému nejvyššímu počtu obyvatel a trpí problémy s nerovností. To láká k výzkumu, jak lze zlepšit finanční schopnosti a spokojenost jednotlivce. Proto se zabývá tím, co může ovlivnit finanční schopnost a finanční spokojenost se zaměřením na rozvojovou zemi, která se zabývá velkou částí obyvatelstva s nízkými příjmy.

Navíc na indickém subkontinentu literatura na toto téma téměř neexistuje. Pokud je výzkumníkovi známo, žádná studie se dosud rozsáhle nezabývala tím, jaké faktory mohou hrát zásadní roli při budování finanční způsobilosti a finanční spokojenosti jednotlivců v rozvojových zemích, konkrétně v kulturním prostředí indického subkontinentu na základě teorie způsobilosti. Na tomto pozadí se navrhovaná disertační práce snažila zaplnit chybějící mezeru vytvořením komplexního výzkumného modelu týkajícího se determinantů finanční schopnosti a finanční spokojenosti u jednotlivců s nízkými příjmy v Indii.

Studie byla provedena v Uttarpradéši, nejlidnatějším regionu, kde většina obyvatelstva patří do kategorie nízkopříjmových osob. Ve studii byl použit smíšený metodický přístup. Výzkumnou strategií použitou v této práci je expertní názor pro kvalitativní analýzu (pro doplnění zjištění kvantitativní analýzy) a metoda průzkumu pro kvantitativní analýzu. Výběrový soubor pro kvalitativní metodu tvoří odborníci z oboru, kteří s obyvatelstvem často jednají a rozumí tomu, co ovlivňuje finanční gramotnost, schopnosti a spokojenost nízkopříjmových osob. Kvantitativní přístup je hlavní součástí analýzy, která má ověřit formulovanou hypotézu. Bylo shromážděno 510 dotazníků a po očištění dat bylo použito pouze 407 vzorků. Analýza dat je provedena prostřednictvím programů Microsoft Excel, SPSS 23 a SmartPLS 3.0. Ke zkoumání a testování formulovaného výzkumného modelu je použita metoda modelování strukturálních rovnic (SEM) metodou parciálních nejmenších čtverců (PLS). Názory jsou shromažďovány od jedenácti odborníků prostřednictvím průvodce rozhovorem pro kvalitativní analýzu.

Z hlavních zjištění kvantitativní analýzy vyplývá, že: (i) finanční poradenství a konzultace, finanční začlenění, finanční znalosti a ekonomické potíže mají pozitivní vliv na finanční schopnost; (ii) zajímavé je, že finanční postoje a finanční chování nemají pozitivní vliv na finanční schopnost; (iii) hypotézy o finančním chování, finanční způsobilosti, ekonomických potížích a toleranci k riziku jsou výsledkem analýzy podpořeny. V rámci kvalitativní analýzy textu – zjištění podporují a potvrzují výsledky kvantitativní analýzy a přidávají další faktory pro budoucí studie.

Práce přispívá k literatuře o finanční gramotnosti, finančních schopnostech a finanční spokojenosti v rámci kategorie osobních financí a obohacuje stávající literaturu tím, že zaplňuje zjištěné mezery ve výzkumu. Zdůrazněny jsou důsledky výzkumu, novost studie, omezení a budoucí výzkum.

DEDICATION

The entire doctoral thesis is warmly dedicated to my aunty Shabana Qamar, whose encouragement, care, teaching, and support from my nursery school to university for PhD today helped me attain this higher height in my career. Her sacrifice and her efforts were commendable and cannot be compensated. Thank you for making me capable of reaching this stage and becoming who I am today.

ACKNOWLEDGEMENT

Above anyone, I thank Allah for granting me the ability to finalize my doctoral studies successfully.

Without the dedication, comprehension, support, and contributions of dozens of people throughout my PhD studies at Tomas Bata University in Zlin, Czech Republic, this thesis would not have been accomplished. First, I would like to extend my sincere gratitude to Prof. Ing. Jaroslav Belás, PhD, my PhD supervisor, for his constant support and guidance during the studies and dissertation process. I will always be incredibly grateful for his intellectual advice and support.

I would like to express my gratitude for the constant support and inspiration from Dr. Lubor Homolka and Prof. Drahomíra Pavelková. Their suggestions, critical evaluations have helped in shaping this thesis and making it more relevant. I would like to thank Professor David Tuček, Dean of the Faculty of Management and Economics, and Professor Vladimir Sedlařík, Rector of Tomas Bata University in Zlin, for their dedication to creating such a congenial environment at FAME and for letting me undertake my doctoral studies. Additionally, I would like to thank the team at Toma Bata University, especially Martina Drábková and Pavla Bartošová, for their unconditional support and willingness to assist throughout my PhD research. In this regard, I'd like to draw attention to Mgr. Lenka Kolenovská's assistance with the CEEPUS mobility. A special thanks also to Professor Judit Olah for all of her help with the mobility program in Hungary.

Further, Gentjan Çera, PhD, made this journey interesting, fruitful and exciting for me. We worked on many papers and successfully published them in good-quality journals, and this experience will always stay close to my heart. With his collaboration, I achieved some of the things I may not be able to achieve alone. In addition, I would like to extend my thanks to all my co-authors and colleagues with whom I worked, especially Zdenko Metzker, for collaborating, coordinating and supporting IGA. Mohammad Anam Akhtar and Sandeep Dey, for their support, discussions, and encouragements. I greatly thank the anonymous reviewers who offered their intelligent and helpful criticism of my work. Understanding and improving were sometimes very challenging, but they contributed much to my learning process.

Lastly, I thank all my family members, especially my mother, Shagufta Qamar. A very special thanks to my wife, Asma Saeed. Her trust, patience and determination gave me constant encouragement to keep myself strong from homesickness and focus on my studies and also her family members for taking

care of my kids in such a way that cannot be expressed in words. I again thank everyone whose name I missed mentioning but who supported me directly and indirectly. I believe this thesis will give new avenues to many new upcoming researchers in different directions to think and explore further.

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LIST OF ABBREVIATIONS

FC	Financial Capability
FS	Financial Satisfaction
FL	Financial literacy
FAD	Financial advice and Counselling
FI	Financial Inclusion
FK	Financial Knowledge
FB	Financial Behaviour
FA	Financial Attitude
EH	Economic Hardship
FH	Financial Hardship
RT	Risk Tolerance
PL-SEM	Partial Least Square-Structural Equation Modelling

1. INTRODUCTION

1.1 Research Background

Life satisfaction has many facets and is constantly evolving (Campara et al., 2017). The individual's personal satisfaction is made up of satisfaction in several different life categories that are grouped together (Rojas, 2006). Loewe *et al.* (2014) examined among workers seven significant life domains, including financial circumstances, to identify determinants of total life satisfaction. There are several domains identified, and it can range from a few to infinity. Therefore, according to the research goals and objectives, a study can choose any or in a combination of them (Rojas, 2006). As financial well-being is imperative and financial satisfaction can be used as one measure of financial well-being (Brüggen et al., 2017). Even a small number of research use financial satisfaction as a measure of overall wellbeing. (Praag & MS., 2004). Therefore, the current study has chosen to analyze financial satisfaction in order to determine how satisfied people are with their current financial situation.

Poverty cannot be seen just as lowness of income; it is about a lack of basic capabilities, says noble laureate Amartya Sen (2000). Financial capability denotes to a individual's understanding of financial matters, ability to manage their finances, and control over their money. Theoretically, having poor financial capabilities is distinct from having a low income or experiencing shortage. Low incomes may be associated with those who are financially capable, whereas high incomes along with high standards of living may be associated with those who are less financially capable. Therefore, having a high income cannot prove a higher financial capability. It is about how you manage your funds and money worth (Taylor, 2011). The financial capability notion was make known to in 2006 (Atkinson et al., 2006). The importance of fostering financial capability has grown in recent years (Loke et al., 2015; Luukkanen & Uusitalo, 2019). Financial literacy is a useful but insufficient concept, according to recent research from around the world that were published in books and papers. Financial capability introduces a financial capability concept as opposed to the flimsy notion of financial literacy, which is about the ability to act but leaves out the chance to act. (Despard& Chowa, 2014; Johnson & Sherraden, 2007; Kempson, Perotti, & Scott, 2013). Financial literacy comprises the ability to act but lacks external opportunities measurement such as financial advice and financial inclusion, which come under the opportunity to act and with both, together, financial capability can be developed (Johnson & Sherraden, 2007; Kempson et al., 2013; Sherraden, 2013b) and that’s the another chosen dependent variable of the study.

A person is deemed incapable if they acquire knowledge and abilities but do not put them to use or apply them when making practical decisions. (Vlaev & Elliott, 2017a). Recently, the need to increase financial capability has been emphasized more by policymakers (Batty et al., 2015). Researchers are concentrating on external prospects such as financial counselling and advice that can assist consumers in making decisions about insurance, taxes, investments, home ownership, higher education finance, and retirement. Any wrong decisions can bring an undesired financial burden. Individuals with lesser levels of debt literacy can result in higher charges and high-cost borrowing (Lusardi & Tufano, 2015), which can add to economic hardships. Several families have suffered because of economic hardship during the recent economic disasters in Europe, such as the loss of a job or earning (Eurofound, 2015). Therefore, responsible debt, income, and spending management can lessen financial hardship and boost stability and satisfaction. (Blom et al., 2019). Financial capability is built on a foundation of financial literacy, financial inclusion, financial advice, and counselling. (Sherraden, 2013a).

Imprudent financial decisions indicate a need to boost financial capability (Luukkanen & Uusitalo, 2019). Some recent studies have shown that financial decision-making choices may affect financial satisfaction (Aboagye & Jung, 2018). Financial satisfaction may result from the right financial decisions (Arifin, 2018), and risk tolerance plays an essential role in financial decision-making, ultimately affecting satisfaction. In a few studies, financial risk tolerance negatively affected financial satisfaction (So-hyun Joo & Grable, 2004). Though financial capability is inclusive of financial literacy, financial advice, and financial inclusion (Aprea et al., 2016), considering financial literacy, inclusion, and advice alone may not be enough. Including economic hardship and risk, tolerance impact can make it fair to understand individuals' financial capability and financial satisfaction as economic hardship and risk tolerance might play a significant role in capability and satisfaction reduction (So-hyun Joo & Grable, 2004; Ranta et al., 2019). Therefore, the emphasis of the current study is on financial literacy, financial inclusion, financial advice, economic hardship, and risk tolerance and their effects on individuals' financial capability and financial satisfaction.

The critical analysis of the present economic conditions reveals frightening loopholes, the global economic turmoil of 2008 inversely affected the financial stability of families and economic burden on the states (Eurofound, 2015), it had increased the poverty and affected negatively the economic growth of the nations (WB, 2009). It also attracted the attention of researchers and policymakers towards the improvement of financial literacy and financial capability. Issues like poor financial planning and low emergency savings, survival during financial challenges, in the current volatile economic scenario is not only related to low-income countries but also has issues in middle and high incomes countries, nearly 42% European struggle financially and approximately 10% are at poverty risk (Eurostat 2017) as well as according to the Ageing report (EC, 2017) old age population is rising considerably in EU region. Therefore, there will be a significant increase in the financial dependence of the elderly on social security, insurance, and government funding. To address this, governments are shifting their responsibilities, attempting to put more of the onus on individuals to prepare and manage enough financial resources for their retirement, difficult times, and old age financial securities (Atkinson et al., 2007). Hence, it highlights poor financial capability is a universal problem affecting all the nations one or another way and severely low-income countries because of the weak social security system and all the financial burden falls on the shoulders of the individual and individuals' have to plan their own. A sufficient financial capability is required to enable people to become financially independent and lessen the load on the state. Around 3.5 billion persons worldwide, the majority of whom reside in poor nations, are financially illiterate. Specifically, in India, just 24 percent are found financially literate (Klapper et al., 2017).

Furthermore, considering the existing researches, components of financial literacy, opportunities such as financial advice and financial inclusion, and factors affecting negatively like economic hardship and risk tolerance are not yet studied on financial capability and financial satisfaction. The novelty of the study is to test the augmented model to determine the factors affecting financial capability and financial satisfaction (combine elements of ability and opportunity). Consequently, in light of the evidence from literature, the present study focuses on the financial satisfaction of individuals and investigates the role of how Financial capability, along with financial literacy affects Financial satisfaction among low-income individuals.

1.2. Research problem and gap

Post-economic crisis of 2007, studies identified different types of issues and challenges about the individuals' financial stability around the world. The number of evidence indicated that less financially literate and incapable individuals have higher chances to have problems with debts, low savings, indulge in high fees mortgages, and have a higher possibility of poor retirement planning (Kefela, 2011). Some of the critical difficulties arising, identified from different studies are increasing complexities of financial market and products and economic crises which is now a big worrisome to society as well (Crotty, 2009), how to make the prudent economic decision to protect investments in crisis (Lusardi & Mitchell, 2014), protection from miss-selling of financial products (Atkinson et al., 2007), increasing old age population and economic burden on states (EC, 2017), dynamic economic environment and old age retirement planning choice (Rooij et al., 2011). Authors have covered even more than the above mentioned issued and stressed for improving individual's financial capability to help themselves, their families, and communities as well as to survive and achieve their desired financial goals in such a critical scenario, to be financially satisfied and improve financial well-being in long run. The reports and discussed issues substantially highlight the need and importance of determining individual’s financial capability and financial satisfaction, as the outcome of the study can help the lawmakers, policymakers, and educators to strategize their policies and curriculum to make and support individuals not only to achieve their financial goals but be able to survive financial turbulence. The majority around the world are now out of the ambit of extreme poverty, but still, they have limited opportunities and the resources to control their lives (Pedro, 2019). In these circumstances, it seems logical to study how they are building their financial capability and are they financially satisfied. Still, approximately 600 million people live on less than $1.90 a day, and a substantial portion lives in India (Pedro, 2019). A continuous challenge the world is facing in term of income and wealth distribution have severe effects on individual financial capability. According to the Oxfam report (2020), Reducing inequality is one of the sustainable development goals to be accomplished by 2030. The richest 1% of people on the planet have more than twice as much wealth as 6.9 billion people.

1.2.1. Knowledge Gap

The present study is based on the Capability approach given by Sen extended by Martha Nussbaum (1993a). Later Johnson and Sherraden (2007) extended it on financial capability. The present study will offer an augmented model based on the mentioned previous works. How an individual can achieve the capability or freedom to live the life the way he or she wishes to live. Hence the study will determine the factors affecting financial capability and financial satisfaction of individuals and how they can be enhanced. Limited studies were found regarding financial satisfaction concerning individual satisfaction of life (Vera-Toscano et al., 2006). Financial satisfaction is one of the major determinants of an individual’s overall well-being. Financial satisfaction is a reflector of financial well-being, and is a crucial constituent of overall life satisfaction (Woodyard & Robb, 2016).

On the other hand, several reasons were identified in the literature regarding the importance of financial capability and financial literacy. Still, the majority are studied separately on financial satisfaction, and also minimal research was found to determine financial satisfaction through financial capability. Financial capability promotion among consumers first appeared in developed countries, and now a few developing countries have also realized its importance and started measuring it(Xiao et al., 2014). After the economic shocks in late nineties and first decade of 20th century, developed countries around the world such as Australia, USA, UK, Japan, etc. are constantly trying to enhance the financial capability of their people, formed specific organizations such as National financial capability survey(NFCS) in the USA conducted the first study in 2009, UK financial capability strategy first survey in 2015, etc., and the outcomes were eye-openers. Realized that there is a need for monitoring and constant efforts to improve financial capability, especially the vulnerable and critical groups in the society (Atkinson et al., 2006; Lusardi, 2011; Xiao et al., 2014). According to CYFI (2012) and Sherraden &Ansong (2016) to understand the collective contribution of financial education, guidance, and financial services, it needs better measurement of financial literacy and financial inclusion as well as financial well-being and stability. Future research can use mixed methods, which can further advise the critical elements of financial capability. Also, studies must focus on the diverse segment of financially vulnerable people in various countries and part at a different level of economic development in different demographic groups such as gender, age, etc. Improving peoples' financial capability is constantly getting importance and recognition among governments, central banks, international organizations, and it is ever-increasing. Various countries are working towards it through different strategies and programs at the national level to improve peoples' financial capability, and other countries have to follow the same (Mundy, 2011).

Various studies suggested that financial capability needs further evaluation in different ways and different contexts such as, According to Xiao et al., (2014),the financial capability was measured by very limited variables. There may be additional factors that can be utilized to more accurately gauge financial capabilities. To further comprehend this phenomenon in varied socioeconomic circumstances, data from other industrialized and developing nations might be studied. According to Storchi and Johnson (2016) financial capability needs an investigating framework for the investigation of how poor people take financial decisions and involve with financial services, does it improve their happiness. Financial capability is gradually becoming a priority for policymakers in both developed and developing economies as it is helping towards financial stability, financial inclusion, and to the effective functioning of financial markets as well (World Bank, 2013). According to Despard and Chow (2014), there is still a vacuum to develop further financial capability measurement scale. According to Banerjee (2016), the Financial capability of poor people requires significant research evidence in India. Mixed-methods research should examine existing financial capability programs and extract the influence of location, gender, marital status, family size, family type, education, and health in both financial inclusion and individuals' abilities, the outcomes of the study should be implemented through inclusions and education plans and policies to pull up all the people living below per day minimum income level. The expected analysis will reflect how individuals' financial satisfaction can be attained by increasing their level of financial literacy, inclusion, and advice total financial capability. Therefore, the present study will investigate how ability and opportunities can bring financial capability, freedom to live the life the way an individual wish to, and cope with financial hurdles and risky affairs.

1.2.2. Geographical Gap 'India'

Reports claim India is the seventh-largest economy of the world in terms of GDP (World Bank, 2019). On the other hand, when it comes to per capita income, India ranked one hundred twenty-sevenths in terms of purchasing power parity. Though the number of millionaires raised from just 34 thousand in the year 2000 to 759 thousand by 2019 which disclose how fast the wealth has been growing in India, but the problem is, it is not shared with everyone, 78% of the adult owns wealth less than 10,000$ and just 1.8% adults have a net worth more than 100,000$. Around 827,000 adults belong to the world's top 1 percent wealth owners, which is just 1.6% of the population (Lluberas & Shorrocks, 2019).It is the home of the world's 3rd largest number of billionaires along with the highest number of poor people in the world. Therefore, people's prosperity and well-being widely vary across the country (WB, 2018).less than one-fifth of the population is covered by some form of social protection (WESO, 2019). Moreover, net financial assets per capita are just 1320 euros one of the lowest in the world (Grimm et al., 2019). Therefore, what is still pulling back India's growth is poverty, income inequality, inequality in wealth and individuals well-being, hence, studies are required focus to cover this chosen context which can help through knowledge to achieve SDGs such as, (SDG1) alleviate poverty, (SDG3) improve good health and well-being, (SGD8) achieve inclusive economic growth for individuals have sufficient earning to help themselves and family, (SDG10) reduce inequality, bring income equality, etc. (Le Blanc, 2015; UN, 2016). Future research needs to examine further the factors affecting financial capability among low-income consumers (Potocki & Cierpiał-Wolan, 2019).

In the Indian scenario, a lot has to be done to monitor, measure, and improve the financial capability specifically, low-income groups, landless laborers, marginal and small farmers, youth, senior citizens, etc. In India, financial capability is still a virgin area to explore. Apart from a few pieces of research, nothing much is being done in the Indian context. Also, the Indian states' socio-economic condition attracts rigorous studies as it can help policymakers and other stakeholders understand the challenges and frame the strategies towards its improvement. Previous studies on financial capability were majorly conducted on youth (Despard & Chowa, 2014; Johnson & Sherraden, 2007; Ranta & Salmela-Aro, 2018), on the consumer (Xiao & O'Neill, 2016), on rural household (Chowa et al., 2014), people in the state of West Bengal India (Banerjee, 2016), but not extensively with a comprehensive model determining the financial capability and financial satisfaction in India. In its report of (2016), World Bank identified five lowest-income states of India are Odisha, Jharkhand, Bihar, Chhattisgarh, Uttar Pradesh, Rajasthan, and Madhya Pradesh are continually lagging the other states in terms of poverty alleviation, income and wealth enhancement. No prior study has been conducted in the chosen area to the extent of the researcher’s knowledge. Hence the present study will cover the five states with the lowest income status in India, focus the population at the bottom of the pyramid.

Observing its importance from another perspective, McDaid et al., (2013) detected connection between financial hardship and stress, anxiety, and depression among the financially weak, linked to diseases, poor health, and even suicide. According to Meltzer et al. (2011) in 2007, 4.3% of England's adults had considered taking their own lives in the previous year. Those in liability were two times more expected to intend of suicide. Housing-related debt (rent and mortgage arrears), the trouble in making hire purchases and paying off credit card liability was strongly linked to suicidal thoughts. According to the National crime record bureau (NCRB, 2018)of India stated a total of 10,349 people involved in the agricultural sector (consisting of 5,763 farmers/cultivators and 4,586 farm laborers) committed suicides in 2018. Of the total 92,114 male suicides, the daily wage earners (26,589) committed maximum suicides, followed by self-employed (12,175) and unemployed (10,687). In 2018, 66.2 percent of suicide victims had an annual income below 100 thousand (88,986 out of 1,34,516 victims). 29.1 percent (39080 out of 1,34,516 victims) of suicide victims belong to the hundred thousand to five hundred thousand. It reflects more than 95% of all suicides belonging to low-income individuals, a big cause of worry for the state and social practitioners. It again reflects the significance of financial capability and financial satisfaction.

Studying this phenomenon in the chosen segment could be a valuable theoretical contribution for future research avenues and practical implications as well to knowhow the financial capability building can help to achieve financial satisfaction, which can affect low-income individuals positively. Banerjee (2016) stated that Nobel laureate Amartya Sen and other renowned authors such as Margaret Sherraden were rightly indicated that the opportunity to earn, save, borrow, and invest the money as well as the ability to comprehend and manage one’s finances competently is critically crucial for satisfaction and well-being. Above all the relevance of the current area of the research can be identified with the critical sustainable development goals to achieve by 2030 such as (SDG1) to alleviate poverty, (SDG3) improve good health and well-being, (SGD8) achieve inclusive economic growth for individuals have sufficient earning to help themselves and family, (SDG10) reduce inequality, bring income equality, etc. (Le Blanc, 2015; UN, 2016). There is an emerging concern on the individual’s well-being, specifically, financial well-being so that the individuals can sustain economically in ups and downs, which requires improved financial capability and financial satisfaction. From an individual's point of view, financial well-being is imperative, and studies have exposed that it has a strong and positive association towards the complete well-being (Brüggen et al., 2017).

1.3. Research Questions

The study's primary research question is related to “Identify the factors determining the financial capability and financial satisfaction among low-income individuals in India?

The research question is further framed into specific questions to achieve the desired outcome as per the identified research problem.

Research questions

RQ1. How does financial inclusion, financial advice and counselling, financial attitude, financial knowledge, financial behaviour, and economic hardship effects the financial capability of low-income individuals in India?

RQ2. How does financial behaviour, financial capability, economic hardship, and risk tolerance affect the financial satisfaction of low-income individuals in India?

1.4. Research objective

Based on research gaps, the main objective of this study is to develop a comprehensive model to determine the Individuals’ financial capability and financial satisfaction among low-income individuals in India.

Specific Objectives

1. To investigate how does financial inclusion, financial advice and counselling, financial attitude, financial knowledge, financial behaviour, and economic hardship affect the financial capability of low-income individuals in India.

2. To investigate how does financial behaviour, financial capability, economic hardship, and risk tolerance affect the financial satisfaction of low-income individuals in India?

1.5. Thesis structure

This study is classified into seven chapters. The chapter one is about the introduction. It contains the introduction about the topic, the research gap- the need for the study and what the study is intended to address. The literature review, including the theory upon which this thesis is based and the formulation of the hypothesis, is covered in the second chapter. The conceptual framework is developed at the end of the second chapter. The third chapter is devoted to this thesis's technique and research design. Along with the research design, the research scales, sampling techniques, measurement items, data analysis, and assumption checking of the approach are described below. The fourth chapter of the thesis contains the findings, which combine quantitative and qualitative analysis.

In a separate chapter, the results of the thesis are discussed. The research's contributions are covered in the sixth chapter. The last chapter is titled conclusion. The references cited in the main text, the list of publications, and a summary of the author's curriculum vitae are all listed after the annexes.

2. LITERATURE REVIEW

The literature review explores and investigates the theoretical background from the existing literature databases to identify the factors affecting financial capability and financial satisfaction. To understand the impact of identified variables and the nature of their influence, whether positive or negative, from the existing literature on financial capability and financial satisfaction, intending to draw an integrated framework for the present study.

2.1. Financial inclusion and Financial capability

According to the Organization for economic cooperation and development (OECD, 2013), Financial inclusion ensures that people may readily access financial services and products by focusing on promoting awareness, accessibility, and availability of financial products and services. People's capacity to save money sensibly, plan efficiently for cost-effective borrowing, and protect themselves and their families from everyday catastrophes like starvation, natural calamities, crime, etc. are all hampered by insufficient access to and usage of financial services (GPFI, 2010). Therefore, improving financial inclusion is necessary and can lead to the development of financial capability (Grady, 2019). Financial inclusion is made possible by timely, inexpensive, useful, financially enticing, practical, safe & secure, easy to use, and reliable financial products & services (Aprea et al., 2016; Sherraden, 2013b). In addition, a study that focused on external aspects (i.e., access to and use of services and products) regarding the improvement of financial capability specified that financial inclusion is an important issue to take care of when it comes to the growth of financial capability (Chowa et al., 2014). Financial inclusion affects financial capability (Aprea et al., 2016; Johnson & Sherraden, 2007). Financial inclusion has a sturdy and positive association with people's savings because access to bank accounts is tied to financial inclusion, which increases people's capacity to save and protect themselves from risk. (Kempson et al., 2013), eventually improved saving increases people financial safety. Capability approach not only emphasizes internal capabilities, which includes individual characteristics but the external environment as well, within that, an individual has to function and connect to the other environments (Nussbaum, 2011; Reyers, 2019). Therefore, financial inclusion covers the people under the ambit of basic financial products, and how their accessibility and availability strengthen their financial capability.

2.2. Financial advice and counselling and Financial capability

Financial advice is being paid hefty attention in recent past years (Von Gaudecker, 2015). Because it was traced that financial advice enhance ability for better financial decision making (Kim et al., 2018). That could also be the reason why a significant part of households seek professional help when making financial decisions (Stolper & Walter, 2017). According to Moreland (2018), specifically, individuals with less financial knowledge can get enormous benefits from financial advice therefore, financial advice improves financial decision making. Additionally, to be financially capable, individuals have to have advice and guidance how to plan and be able for a stable financial future (Sherraden et al., 2015a). Increasing complexities of financial products worry about saving for retirement and household requirements, all of these have increased the significance of financial advice and financial advice matters where there is the poor financial capability (Georgarakos & Inderst, 2011). Existing literature is not very rich, which establishes the connection between financial advice and financial capability.

2.3. Financial attitude and Financial capability

Attitudes affect financial decision making (Shih & Ke, 2014). Rai, Dua, and Yadav (2019) financial attitude can be described as a person's approach to financial matters and issues. Moreover, it is about the confidence to make suitable financial selections (French & McKillop, 2016). The monetary and non-monetary beliefs of an individual establish a financial attitude, and it is a crucial aspect of the decision-making process (Ajzen, 2009; Potrich et al., 2015). It was also found that attitude affects an individual’s financial capability (S. Shim et al., 2013). Furthermore, enhanced financial attitudes can increase financial capability, and this supports a likely optimistic association amongst financial attitude and financial capability (Batty et al., 2015). It reflects financial attitude has a direct influence on financial capability. Therefore, it will be reasonable to say that financial attitude affects financial capability positively. The present study will try to establish a direct positive connection between financial attitude and financial capability.

2.4. Financial knowledge and Financial capability

Understanding the effects of microeconomics, macroeconomics, and personal finance management constitutes financial knowledge (Rothwell et al., 2016). A individual’s knowledge of financial system and markets is an indispensable constituent of financial capability (Lusardi & Mitchell, 2014). As previously indicated, one of the key elements of financial literacy is financial knowledge, which must be investigated separately to reveal the precise influence of financial knowledge on financial capability (Rothwell et al., 2016) because the emphasis has moved towards financial capability building (Atkinson et al., 2006). Furthermore, financial capability is inclusive of three interconnected components: financial knowledge, skills, and attitude (Collard et al., 2006). So, internal financial capability focuses on financial knowledge (Reyers, 2019). Learning about finances is linked to better attitudes and behaviors, and if done consistently, it may lead to increased financial capabilities. (Batty et al., 2015). Individuals who have less schooling are additional expected to display behaviors associated with low financial capability (Lusardi, 2011); therefore, growing financial knowledge is the main requirement for financial capability. Financial knowledge has a positive impact on future financial competence, but there aren't yet enough studies to back it up (Batty et al., 2015), and this is probably a nascent field to look into.

2.5. Financial behaviour and Financial capability

Financial behaviour is a composite term and covered all the monetarist actions undertaken by the individuals (Mudzingiri, Muteba Mwamba & Keyser, 2018). Likewise, Bhushan and Medury (2014) also clarified that financial behaviour is all-encompassing of all types of behaviour that deal with monetary decision-making and money management. Rai, Dua, and Yadav (2019) indicated that all these like financial forecasting, saving, budgeting, planning, investing, obligation payment, etc. falls under the ambit of financial behaviour. Some studies have supported a extensive relationship between financial behaviour and financial capability. Theoretically, improved financial behaviours are connected with improved financial capability. Financial behaviour is a significant aspect that forms financial capability (Potocki & Cierpiał-Wolan, 2019; Xiao et al., 2014). Developed financial capability is connected with positive and a lesser amount of risky financial behaviours. Financial capability can be assessed through financial behaviours (Atkinson et al., 2007; Lusardi & Mitchell, 2011), and it is further mentioned that one of the crucial components of financial capability is financial behaviour (Xiao et al., 2014). A person's financial behaviour is actually taken into consideration as an important topic to be analysed from the point of view of scholars in the current years. Financial behaviour has a significant impact on people's financial capability and is a key factor in identifying that capability (Potocki & Cierpiał-Wolan, 2019; Xiao et al., 2014). Therefore, financial behaviour is considered to be a critical factor affecting financial capability.

2.6. Economic hardship and Financial capability

Economic hardship or financial hardship it is about an individual's inability to meet basic needs (Huang et al., 2015). Economic hardship affects families in several ways. Economic hardship might be related to failure to pay the bill, rent on time, inabilities to fulfil needs and cutting personal expenses (Williams et al., 2015). As financial capability is about how individuals manage and control their finances (Taylor, 2011), so failure to control and manage properly may negatively affect financial capability. A study by (Ranta et al., 2019) considers economic hardships based on income insufficiency and income decrease found insufficient income at a younger age results lower level of financial capability and higher level of economic pressures. It reflects there is an inverse relationship between the two. According to (Huang et al., 2015) economic vulnerability might be intensified by poor financial capability. Having higher financial capability, which is inclusive of financial abilities and financial opportunities, has higher chances to reduce the risk of economic hardship. Within the limited resources, an individual with higher financial capabilities can manage his/her finances in such a way which can help them to avoid economic hardships and with better financial capabilities individuals have higher abilities to allocate their limited resources efficiently to use it in hard times, this reveals the inverse relation between the financial capability and economic hardship again. Income insufficiency and poor management can affect financial capability. Limited studies have covered this area, but it seems logical through the discussion that an individual's economic hardships negatively affect financial capability.

2.7. Financial behaviour and Financial satisfaction

Preceding studies found the significant positive connection between financial behaviour and financial satisfaction (Davis & Runyan, 2016; Hasibuan et al., 2018; Zainul, 2018). Another study by Aboagye & Jung (2018) state that importance of savings and spending behaviour has a positive influence on overall financial satisfaction. The most influential factor of financial satisfaction was a person's financial behaviour (So-hyun Joo & Grable, 2004). The desirable financial behaviour upsurges while risky financial behaviour cuts financial satisfaction, it reflects a sturdy relationship between financial behaviour and financial satisfaction (Xiao et al., 2014). Based on the previous study, the present study will further test the positive relationship between financial behaviour and financial satisfaction.

2.8. Financial capability and Financial satisfaction

A study analysed the statistics from the 2009 United States, Survey of Financial Capability, found a positive relationship between perceived financial capability and financial satisfaction (Xiao, 2016).Another study by (Zainul, 2018) found financial capability has a positive impact on financial satisfaction, also states that financial capability is related to the ability of an individual to use finance in such a way to achieve what is anticipated to gain financial wellness. It was also found that financial capability contributes to financial satisfaction (Xiao & O'Neill, 2018). Moreover, Financial capability is the individuals ability to use elementary financial knowledge and occupy essential financial behaviors to accomplishing financial well-being, as it is exposed that financial capability has a stout effect on financial satisfaction (Xiao & Porto, 2017). It witnesses the connection amongst financial capability and financial satisfaction.

2.9. Economic hardship and Financial satisfaction

Financial satisfaction is about a state of being happy and unrestricted from financial burdens and worry (Zimmerman, 1995). Individuals suffered more from economic hardship as a result of economic fluctuation (Eurofound, 2015). Studies confirm that economic stress and financial failure to fulfil an obligation, upsurge the risk of general dissatisfaction (So-hyun Joo & Grable, 2004). Financial satisfaction is about an individual's satisfaction with the current financial condition (Hira and Mugenda, 1998; Joo & Grable, 2004). It is an individual analysis of the financial conditions to determine whether an individual is happy with it or not (Arifin, 2018). Having economic hardship such as debt burden, insufficient income, decrease in income, or economic crisis due to economic fluctuations can affect an individual's freedom or happiness negatively. A study by Ranta et al. (2019) stated that higher-income insufficiency at a younger age predicted a lesser level of life satisfaction. Having difficulties meeting the routine expenses and daily requirements brings economic hardship, and it might have a direct effect on an individual's financial satisfaction.

2.10. Risk tolerance and Financial satisfaction

Risk tolerance can be explained as the amount of risk that a person is ready to bear in the quest for desired goals. In the financial context, risk tolerance is the amount of risk a person has opted while making a financial decision (Roszkowski & Davey, 2010). It reflects risk tolerance is related to financial decision making. Some recent studies have also shown that the choice in financial decision making may affect financial satisfaction (Aboagye & Jung, 2018). Financial satisfaction may result from sound financial decisions (Arifin, 2018). Making the right financial decision may affect financial satisfaction rightly. Taking a high risk and getting high return seems logical and justify the individuals' expectations for taking high-risk tolerance. But studies found there exist negatives relations too, which might affect the individual's financial satisfaction negatively; even taking high-risk tolerance may result in lower financial satisfaction. Having higher financial risk tolerance increases the individual's expectations, it means an individual want more to feel financially satisfied. When they compare their standard of living and fall in the case below the expectation or the current level it brings mismatch between high-risk tolerance and his expectations, it negatively affects the individuals with higher risk tolerance. It is how higher risk tolerance can adversely affect financial satisfaction, and that's what the study found, financial risk tolerance negatively affected financial satisfaction (So-hyun Joo & Grable, 2004). Another study by Asebedo & Payne (2019) stated with the accurate risk tolerance assessment, and an adequately framed portfolio individuals feel comfortable and satisfied with their financial situation. Still, the same study results were astonishing and found that risk tolerance is negatively associated with financial satisfaction. It may differ from person to person, case to case. So, when it affects negatively, it reduces an individual's financial satisfaction.

2.11. Scope of the study

The current study retrieved the support from the capability theory given Sen's (1993b), which was later further extended by Nussbaum. Both functioning and capabilities at the individual level are included in the notion of capability. Functioning is focused on what people do (e.g., capable to make judicious financial decisions) and what they are (e.g., are they financially well-educated?). According to Sen's (Sen, 1993a), capabilities are about the freedom an individual has, to live a kind of life they want, to have adequate opportunities they need to live the way they want. Financial capability referred to an individual's ability to act (knowledge, attitude, and behavior) and opportunity to act (access to financial services, financial inclusion, and advice) together give freedom to people the capability to shape their financial well-being (Huang et al., 2013). Hence, Financial capability is separated into two sorts, internal (i.e., Financial knowledge, Financial attitude, and Financial behavior), and external (i.e., financial inclusion is about the availability and accessibility of financial products) (Reyers, 2019). Therefore, both external and internal resources can work together to improve a person's capacity for financial decision-making and the achievement of financial behaviors that can improve financial well-being, such as regular money-saving and avoiding unnecessary expenses (Sherraden, 2013b).

2.12. Theoretical lenses of the research

The proposed dissertation on the based on the Capability theory (capability approach) by noble laureate Amartya Sen

***Capability Approach*:** According to Nobel laureate Amartya Sen's (1993a) capabilities are about the freedom an individual has, to live a kind of life they want, to have adequate opportunities they need to live the way they want. It referred to internal as well as external capabilities. The capability approach identifies that there is a need for ability and opportunity for the individuals' complete freedom socially, economically, etc. Therefore, based on these two, abilities and opportunity, which was further extended by sherraden that, financial capability referred to an individual's ability to act (knowledge and skills) and the opportunity to act (access to financial services) together gives freedom to individuals the capability to build financial well-being. Ability is about an individual's internal capabilities, and opportunity is about external, concurrently it can enhance individual financial capability. Therefore, the proposed study is substantially based on the Amartya Sen's approach which was further expanded by the Martha Nussbaum (1993) and applied to individual financial capability building by Johnson & Sherraden (Johnson & Sherraden, 2007; Sherraden et al., 2015a).

2.13. Definitions of Variables

After the thorough literature review and to put forward the clarity between each variable, definitions of constructs are given below, a prerequisite to conceptualizing and operationalizing the research. Accordingly, Table 1 provides definitions of all constructs and indicators of this research in the following order.

Financial capability
Financial Inclusion
Financial advice and Counselling
Economic hardship
Financial attitude
Financial Knowledge
Financial behaviour
Financial Satisfaction
Risk tolerance

Table 1 Definitions of constructs and indicators

Construct role in the Framework	Indicators	Definitions	Key references
Dependent	**Financial Capability**	Financial capability reflects people's knowledge of financial matters, their ability to manage their money, and to take control of their finances. Financial capability is about enhancing and upgrading an individual's ability to act (internal capabilities) and the opportunity to act to attain their financial benefits (external capabilities). Capability approach not only emphasizes internal capabilities, which includes individual characteristics but the external	(Taylor, 2011) (Johnson & Sherraden, 2007; Sherraden, 2013a, 2013b) (Nussbaum, 2011; Reyers, 2019)

		environment as well, within that, an individual must operate.	
Independent	**Financial Inclusion**	Financial inclusion is about awareness, availability, and the accessibility of financial products and services, therefore ensuring that an individual can reach to financial services and products easily. Low levels of financial inclusion are about the failure to access and avail financial services restrict people to save their money properly, efficient planning for cost effective borrowing, and to safeguard themselves.	(OECD, 2013) (GPFI, 2010)
Independent	**Financial advice and Counselling**	The advice can be a substitute for learning by one's self, thus dodging the effort of gaining financial proficiency It is an alternative way to improve the quality of individuals' financial decision-making related financial services and products in the financial market full of growing complexity better to delegate the job by trusting on the services offered by professional financial advisors.	(Calcagno & Monticone, 2015) (Stolper & Walter, 2017)
Independent	**Economic hardship**	Economic hardship or financial hardship it is about an individual's inability to meet basic needs. Economic hardship might be related to failure to pay the bill, rent on time, inabilities to fulfil needs and cutting personal expenses because of income insufficiency and change in income.	(Huang et al., 2015). (Williams et al., 2015). (Ranta et al., 2019)

Independent	**Financial Attitude**	Attitude is a belief that can affect behavioural intentions. Financial attitude is an individual's way of approaching financial matters. Moreover, it is about the confidence to make suitable financial selections. The economic and non-economic beliefs of an individual establish a financial attitude, and it is a crucial aspect in the decision-making process. In the financial context, attitude can be elucidated as an opinion and a mind-set about how an individual manages financial affairs and make financial decisions. Mindset, opinion, and judgment frame attitude which are attached to the human mind and cannot be detached; therefore, these things influence the financial decision making.	(Bagwell et al., 2014). (Rai et al., 2019) (French & McKillop, 2016) (Ajzen, 2009; Potrich et al., 2015). (Arifin, 2018)
Independent	**Financial Knowledge**	Financial knowledge is explained as an individual's understanding of micro, macroeconomics, and personal finance. Financial knowledge denotes the basic understanding of financial concepts.	(Rothwell et al., 2016) (Huston, 2010)
Independent	**Financial Behavior**	Financial behaviour is a complex term and covered all the monetarist activities undertaken by the economic agents. Likewise, also explained financial behaviour is inclusive of all types of behaviour deals with financial decision-making and money management. All these like financial planning, saving, budgeting, investing, debt payment, etc. come under the ambit of financial behaviour.	(Mudzingiri, Muteba Mwamba & Keyser, 2018). (Bhushan & Medury, 2014) (Rai et al., 2019)
Dependent	**Financial satisfaction**	Financial satisfaction is one of the major determinants of an individual's overall well-being. Financial satisfaction is about an individual's satisfaction with the current financial condition. It is an individual analysis of the financial conditions to determine whether an individual is happy with it or not.	(Easterlin, 2006) (Hira and Mugenda, 1998; Joo & Grable, 2004).

		Financial satisfaction is about an individual own subjective assessment of financial situation, and it connotes personal characteristics such as personality, attitudes, knowledge, and skills.	(Arifin, 2018) (Joo & Grable, 2004; Woodyard & Robb, 2016).
Independent	**Risk Tolerance**	Financial risk tolerance, defined as the maximum amount of uncertainty that someone is willing to accept when making a financial decision. Risk tolerance is the amount of risk a person has opted while making a financial decision.	(Grable, 2000) (Roszkowski & Davey, 2010).

Source: own research

2.14. Proposed conceptual framework

Based on the theoretical dimensions and extensive literature review to accomplish the aim of the study, which is to identify the determinants of financial capability and financial satisfaction. The study has proposed an integrated financial capability and financial satisfaction framework to determine individual financial satisfaction among low-income individuals in India. Based on the literature review, the study develops a research model as shown in Figure.1

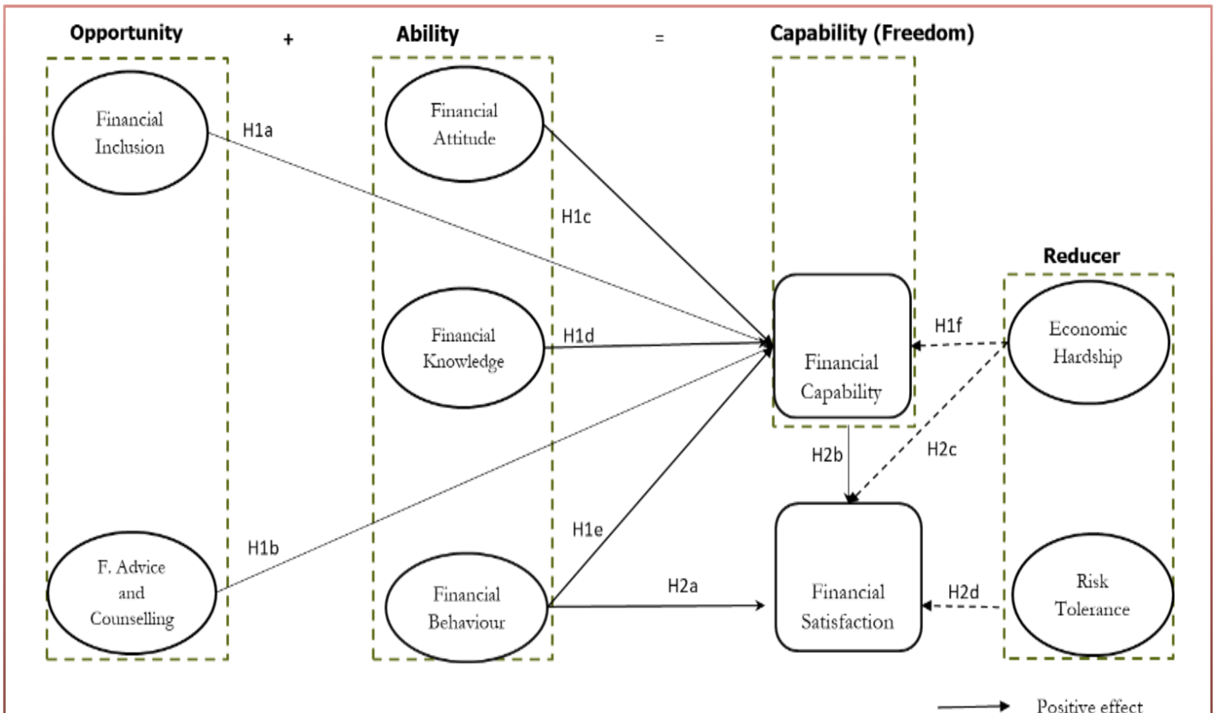

Figure 1. Proposed Conceptual framework

Figure 1 Proposed Research Model   Source: own research

2.15. Research hypotheses

Based on the discussed literature and theoretical background, the following research hypotheses has been framed

H1a. Financial inclusion has a positive effect on financial capability.

H1b. Financial advice and counselling have a positive influence on financial capability.

H1c. Financial attitude has a positive effect on financial capability.

H1d. Financial knowledge has a positive effect on financial capability.

H1e. Financial Behaviour has a positive effect on financial capability.

H1f. Economic hardship has a negative effect on Financial capability.

H2a. Financial behaviour has a positive effect on financial satisfaction.

H2b. Financial capability has a positive effect on financial satisfaction.

H2c. Economic hardship has a negative effect on financial satisfaction.

H2d. Risk tolerance has a negative effect on financial satisfaction.

3. RESEARCH DESIGN

3.1. Research Design and Methodology

Research Design

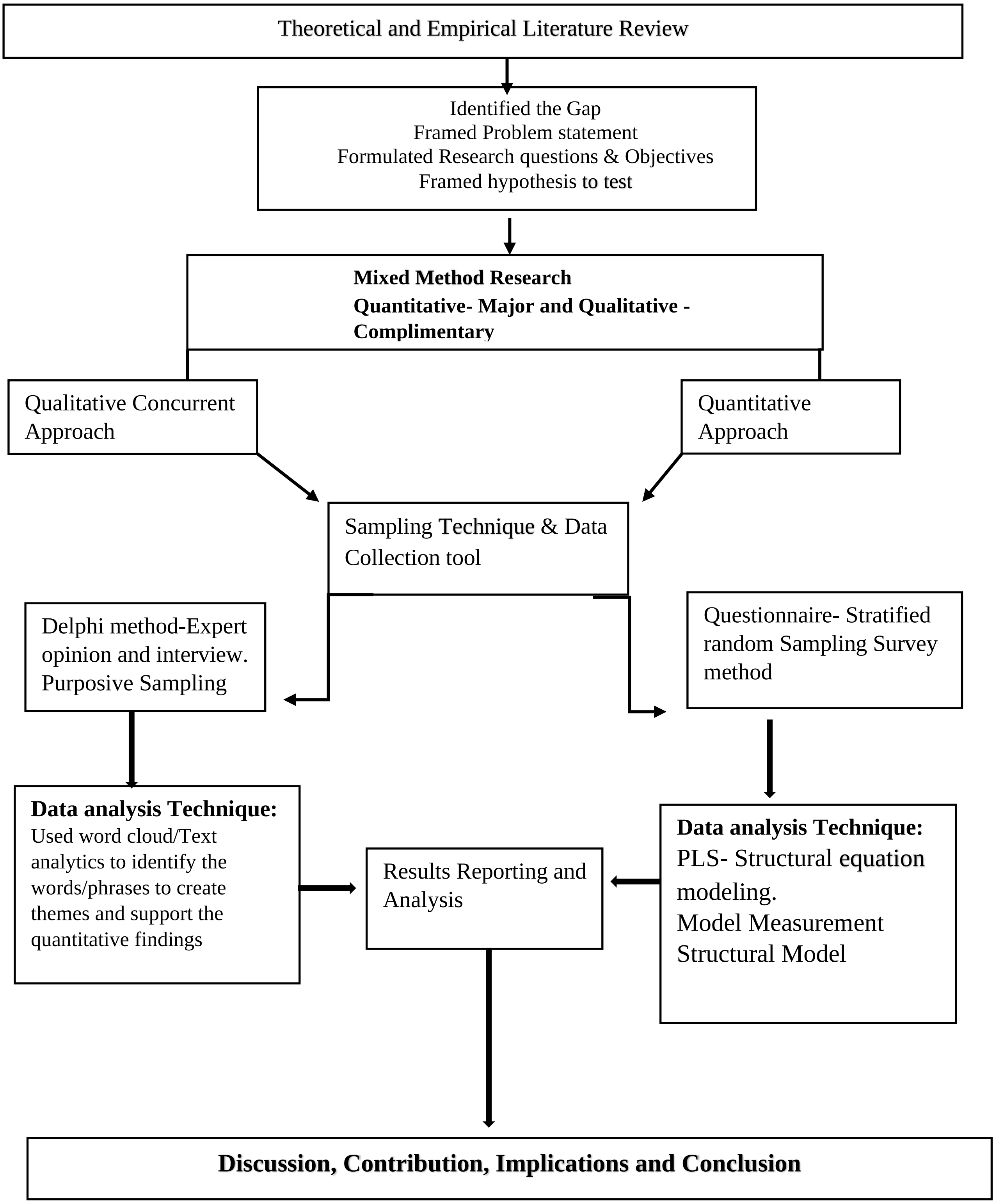

Figure 2 Research Design (Author's approach)

The proposed study begins with theoretical research on the determinants of financial capability and financial satisfaction among low-income individuals in India. The conceptual model developed earlier in the literature (see Figure 1) is examined based on the research design explained in this current chapter. A deductive-inductive inquiry has been executed to accomplish the study's overall objectives. The study executed both quantitative and qualitative approaches. The major analysis is primarily done using quantitative research techniques and a deductive approach to reasoning. Also, a qualitative approach to explore and understand the undertaken research phenomenon. The study's chosen methodology can be called mixed methods, emphasising the quantitative approach. All the framed objectives are accomplished using quantitative methods through the testing of hypotheses.

More so, compared and supported by qualitative approach findings. The present study is encouraged and inspired by the approach suggested by Creswell & Creswel (2018). Mixed methods research (MMR) involves collecting both quantitative and qualitative data, fusing the two, and using original designs that may contain theoretical frameworks and philosophical premises. The underlying assumption behind this kind of research is that mixing qualitative and quantitative data exposes fresh information that either sort of data alone cannot disclose. Quantitative and qualitative both help to understand and generalize the results to a population and generate a complete sense of the meaning of a phenomenon or concept (Enosh, Tzafrir, & Stolovy, 2015; Maxwell, 2016, Creswell, 2014; Creswell & Creswell, 2018). In mixed-methods studies, the Delphi method is helpful in qualitative research (Brady, 2015) and word cloud (DePaolo & Wilkinson, 2014).

3.2. Quantitative approach

A survey research methodology is employed in this thesis. According to Saunders et al. (2009), this research methodology is suitable for gathering quantitative data, examining the links between variables, and formulating a model of relationships. Additionally, because this approach provides the opportunity to manage the research processes, it has the ability to generalize the sample's results to the entire population. Since the present study proposed an integrated framework, it has used quantitative data collected through survey methods to examine the proposed relationship.

3.3. Qualitative Approach

Adding the experience and interpretation of events by industry experts in the related field with widely divergent stakes, experiences and roles help explorations to develop theories and generate meaningful explanations. Qualitative research methods are beneficial in providing comprehensive descriptions of multifaceted phenomena. Quantitative and qualitative techniques can be applied sequentially, simultaneously, or in combination. Good qualitative research is methodical and rigorous and looks for evidence that contradicts the initial or emergent hypothesis. It also aims to minimize prejudice and error. They can also complement each other and are the reason for including a qualitative approach in the present study (Dawadi et al., 2021; Shoshanna Sofaer, 1999). The study enquiry can be deepened by qualitative data (such as interviews and focus groups) since narratives can give the researcher a deeper understanding of the phenomenon. Then, by assisting the researcher in compiling data on many elements of a phenomenon from various individuals, a quantitative approach to data gathering can provide breadth to the study. Another driving force towards merging the two methodologies is the notion that both study styles have value, are in some respects complimentary, and will gain more from doing so together. The researchers use both data sets to analyze the same research question in order to provide more certainty and wider ramifications(Dawadi et al., 2021; Teddlie & Tashakkori, 2009).

To complement the finding of quantitative outcomes, the present study associates and adds the quantitative with qualitative results and puts forward new phenomena for the future research agenda. The researcher planned to perform fifteen in-depth interviews using an interview guide but was collected finally by only eleven experts. Covered the banks, Self-help groups, and microfinance institutions with employees at the upper and middle level, experienced and who are involved directly with low-income individuals in agricultural and microfinance institutions. For the purpose of this study, these service providers are considered as industry experts in the present study. Hence the data for qualitative analysis is collected from these experts. The interview guide mainly consists of two open-ended questions referring to low-income individuals (can be seen in the annexe).

Geographical context

The geographical coverage of the present study is Uttar Pradesh, India. The present study focused in India due to several reason. A big chunk of the population still belongs to the low-income group. According to the World Bank report, it had named seven states of India with the lowest income state list in 2016: Jharkhand, Chhattisgarh, Bihar, Uttar Pradesh, Odisha, Rajasthan, and Madhya Pradesh. The most populous state is Uttar Pradesh, with 200 million people, and out of 200 million, 60 million belong to low income bracket (World Bank, 2016). Therefore, the present study covered the geographical area of Uttar Pradesh, India.

3.4. Population, Unit of analysis and self-reporting

Hanlon & Large (2011) defines “A population is all the individuals or units of interest”. Population under the research methodology is sampled based on common traits or characteristics (Saunders et al., 2009), and A sample is a subset of the individuals in a population”. The research population is the total number of persons or items researcher samples to arrive at a logical conclusion or results relevant to the study. For the purposes of this research, the population for the study consisted of all the individuals with low-income levels within the geographical coverage of the study. Hence, the unit of analysis for this study is Individuals. The present study collected data through a self-reporting questionnaire designed in English. The questionnaire was made in English, a widely used language in India at schools, financial institutions, and social organizations. People were comfortable filling out the questionnaire in English since the questionnaire was short, direct, and simple. Almost all the questionnaires were filled face to face. For the purpose of qualitative data study, the expert opinion and views are taken from individuals working, are experienced and contributing in the financial literacy and capability development field.

3.5. Questionnaire

Since the study is intended to collect data through a survey method. A structured questionnaire was designed. The questionnaire was framed using the existing scales in the available literature. The questionnaire used a Likert scale (strongly disagree 1 to strongly agree 5). The questionnaire was initially designed in English and requested some random individuals to check whether they could understand it in English or not. Since English is quite commonly used in India, individuals can understand and write simple English. Therefore, in the questionnaire were circulated in English only. After the finalization of the questionnaire, it is sent to two academic experts in the financial capability field for questionnaire review and feedback on questionnaire relevance and accuracy. Moreover, a few initial questionnaires were distributed for the trial to find any difficulties or mistakes in the questionnaire.

After the minor corrections in the language, flow and formatting of the questionnaire, the questionnaire was created using the google form, which can help in data collection, and storage and to get in excel format at the end of the collection. The majority of the questionnaires were filled in the researcher's own presence face to face, to help the respondents in case they face any problem in understanding the question, but no major problem was found. For the purpose of the pilot test, few questionnaires were initially asked by the targeted population to fill it. Around 80 questionnaires were collected first to check and test the questionnaire and expected results. After the satisfactory responses. The data collection process was started in online mode but in the presence of the researcher on his own electronic device. Respondents were made aware of their rights to participate in or refrain from answering the questionnaire at any moment while the data is being collected. There were no monetary incentives or in-kind prizes provided. Prior to data collection, ethical approval is obtained. Two individuals helped in data collection, but they were not related and included in the present research. Their assistance was taken only to reach the respondents. The researcher himself travelled to the identified cities and used his own means to collect the data. The whole process took more than eight months.

3.6. Sampling technique

The survey was conducted in a state of India called Uttar Pradesh. For the purpose of the study, the survey was conducted in the top ten most populated cities. The present study set a broad target of sample i.e 1100 samples. The study set the target to collect the sample from ten cities and a hundred and ten samples from each city, making the sample size 1100 (10 cities*110) (Table 03).

Since the study targeted only low-income individuals, finding people with only low income wasn't feasible. To find low income individuals, the study used the public distribution and ration card system in Uttar Pradesh, India. In India, state governments offer ration cards to households that qualify for the National Food Security Act's subsidised food grain purchases through the Public Distribution System (NFSA). For many Indians, they also function as a typical form of identification. A Ration card is a legal document that each state government issues. Using the card, eligible households can purchase food grains at discounted prices in accordance with the National Food Security Act (NFSA). For many people, the document acts as a standard form of identity. Their right to food grains is determined by the color of their ration card, which comes in yellow, red, or white: Families with an annual income of less than $1300 will receive yellow cards if they are BPL (below poverty line), red for the absolute poor, and white for poor yet APL (above poverty line) families. Thus, based on the world bank classification of income brackets, all three coloured ration holders fall under the low-income bracket. Therefore, the present study has covered the ration card holder of yellow, red and white (See Table02).

For the purpose of data collection, public distribution store is located at a number of locations in every city. Since the study targeted only ration card holders, the public distribution stores were the data collection point for the purpose of this study. Individuals visiting public distribution stores were contacted randomly. The study used stratified random sampling, first divided into ten cities and then random sampling to contact random individuals at public distribution stores. Some responses were taken immediately. A few respondents shared their emails to fill out the questionnaire later. That is how the data was collected.

Table 2 Ration Cards classifications in the sample

Ration Card		Frequency	Percent	Valid Percent	Cumulative Percent
	Yellow	188	46.2	46.2	46.2
	Red	151	37.1	37.1	83.3
	White	68	16.7	16.7	100.0
	Total	407	100.0	100.0	

Source: own research

3.7. Sample Size determination

Hair et al. (2010) recommends a minimum sample size of 10 observations for each independent variable. Though the G*power analysis and the rule of thumb both suggested the smaller sample size. PLS-SEM effectively handles small sample sizes and intricate models (Hair Jr et al., 2016). But the present study intended to go for the large sample size, believing the suggestion given by (Asiamah et al., 2017) larger samples produce approximations that better estimated the population parameters and larger samples lead to more precise estimates. Moreover, the larger the sample size the lower the possible error in generalising (Saunders et al., 2009). Larger sample sizes upsurge the exactness (i.e., consistency) of PLS-SEM estimations (Hair Jr et al., 2016).

With this aim, as explained in the previous paragraph, the study set the target to collect 1100 samples. The original data collection plan was actually delayed due to Covid-19 pandemic and social restrictions. The data collection was started after Covid-19 restrictions were lifted by the government, between April 2021 till January 2022. The total number of data collected was 510 (excluding the 80 samples collected for the pilot test) but after removing the partially filled, the fully completed sample size was only 407, which still satisfies the minimum sample size. Out of the set target of 1100 samples, only 510 questionnaires were filled, reflecting a response rate of 46.36 percent. After removing the partially filled questionnaires, i.e 103, almost 80% of 510 were useable. Hence, the final usable sample was 407 from the set target of 1100 samples, showing a 37% in percentage. There were some challenges in data collection (Table 03). First, the covid-19 delayed the data collection plan schedule. Second, the social distancing and other restrictions affected the data collection even after the lockdown was lifted. Due to covid-19, the estimated plan to finish the present study was delayed. Since the 407-sample size satisfies much more than the minimum criteria for the sample size, the study proceeded to data analysis.

Table 3 Samples collected from the cities

Cities	Frequency	Percent	Valid Percent	Cumulative Percent
Kanpur	30	7.4	7.4	7.4
Lucknow	65	16.0	16.0	23.3
Varanasi	46	11.3	11.3	34.6
Agra	26	6.4	6.4	41.0
Meerut	24	5.9	5.9	46.9
Ghaziabad	18	4.4	4.4	51.4
Prayagraj	94	23.1	23.1	74.4
Aligarh	68	16.7	16.7	91.2
Moradabad	16	3.9	3.9	95.1
Bareilly	20	4.9	4.9	100.0
Total	407	100.0	100.0	

Source: own research

The complete sample profile of the respondents can be seen below in Table 04 .56.8% are male, and 43.2 percent are female in the sample. Most people are salaried in private and government jobs, followed by self-employed in agriculture and non-agriculture sectors. The majority of the respondents are 18-28 and 28-38. Amazingly, it was unexpected that responses on education were very different. Even a good number of individuals with low income have bachelor's and master’s degrees. Therefore, it can be assumed that having a low-income may not reflect low educational qualifications. Most of the individuals have qualifications in business background. Based on the marital status majority found married. Again, most of them live in urban areas and have medical expenses burden on them. Lastly, the majority of the individuals have at least one or two financially dependent members in the family detail sample profile can be seen in table 4 below.

Table 4 Sample Profile

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Male	231	56.8	56.8	56.8
Female	176	43.2	43.2	100.0
Total	407	100.0	100.0	
Occupation				
Agriculture Labour	28	6.9	6.9	6.9
Non-Agriculture Labour	66	16.2	16.2	23.1
Self-employed in agribusiness	71	17.4	17.4	40.5

Self-employed in non-agribusiness	51	12.5	12.5	53.1
Street vendor/Hawker	33	8.1	8.1	61.2
Salaried in private/govt	115	28.3	28.3	89.4
Professional	31	7.6	7.6	97
Unemployed	8	2.0	2.0	99
Any other	4	1.0	1.0	100
Total	407	100.0	100.0	
Income (Monthly)				
Under 1000 INR	54	13.3	13.3	13.3
1000 - 3000 INR	71	17.4	17.4	30.7
3000 - 5000 INR	80	19.7	19.7	50.4
5000 - 7000 INR	54	13.3	13.3	63.6
7000 - 9000 INR	73	17.9	17.9	81.6
9000- 11000 INR	75	18.4	18.4	100.0
Total	407	100.0	100.0	
Age				
18-28	109	26.8	26.8	26.8
28-38	168	41.3	41.3	68.1
38-48	80	19.7	19.7	87.7
48-58	37	9.1	9.1	96.8
58-68	13	3.2	3.2	100.0
Total	407	100.0	100.0	
Education level				
High School	25	6.1	6.1	6.1
Senior Secondary	80	19.7	19.7	25.8
Bachelor	132	32.4	32.4	58.2
Master	148	36.4	36.4	94.6
PhD	22	5.4	5.4	100.0
Total	407	100.0	100.0	
Field of Study				
Science	87	21.4	21.4	21.4
Business	124	30.5	30.5	51.8
Social science	93	22.9	22.9	74.7
Humanities	44	10.8	10.8	85.5
Any other	59	14.5	14.5	100.0

Total	407	100.0	100.0	
Marital status				
Single	163	40.0	40.0	40.0
Married	182	44.7	44.7	84.8
Divorced	49	12.0	12.0	96.8
others	13	3.2	3.2	100.0
Total	407	100.0	100.0	
Location				
Urban	285	70.0	70.0	70.0
Rural	122	30.0	30.0	100.0
Total	407	100.0	100.0	
Medical Expense Burden				
No	189	46.4	46.4	46.4
Yes	218	53.6	53.6	100.0
Total	407	100.0	100.0	
Financially dependent members				
None	88	21.6	21.6	21.6
One	96	23.6	23.6	45.2
Two	94	23.1	23.1	68.3
Three	63	15.5	15.5	83.8
Four	35	8.6	8.6	92.4
Above four	31	7.6	7.6	100.0
Total	407	100.0	100.0	

Source: own research

3.8. Data Analysis tools and software

The study used PLS-SEM) known as partial least squares path modelling. A structural equation modelling technique estimates intricate cause-and-effect relationships in path models with latent variables. The measurement and structural models are the two sub-models that make up the PLS-structural equation model. The measurement models represent the links amongst the observed data and the latent variables. The structural model signifies the connections amongst the latent variables (Hair et al., 2017; Hair Jr et al., 2016; Joseph F. Hair et al., 2014). In the social science fields, PLS-SEM is becoming more widely used and can provide much value in behavioural-related studies (Hair Jr et al., 2016; Lowry P B & J, 2014). The present study used SMARTPLS version 3 software to execute the data analysis and SPSS version 28 for descriptive statistics.

The analysis first performed the model measurement and then the structural model. The normality of the latent variables, which is not a need to be met, is one of the justifications for utilizing PLS-SEM. All constructs in this thesis are modelled as reflective indicators. The analysis followed the following steps. First, the variables and their relationships are defined in the structural model. In order to demonstrate the links between the constructs, the measuring model of the constructs is first evaluated to identify its reliability, validity, and discriminant validity. The relevance of these interactions is investigated by looking at the standardized pathways. The bootstrap method is used to calculate these pathways, with 5000 iterations of resampling. Several measures, including R-square value, average variance extracted (AVE), composite reliability (CR), and Cronbach's alpha, can be used to assess the model's fit, reliability, and validity. The amount of variance explained by each endogenous latent variable is expressed as an R-square value for the dependent construct or constructs.

The criteria to use PLS-SEM can be used to assess the validity and reliability of the measurement model. The AVEs of the constructs must be more than the suggested value of 0.50 and should show that the constructs have a reasonable level of reliability and convergent validity. The Cronbach's alpha coefficients verify the internal consistency of the measurement items, which must be more than the minimum of 0.70. The CR coefficients should be more than the cutoff point of 0.60, demonstrating a robust variance sharing across the corresponding items or indicators. If the conditions mentioned above are met, it can be concluded that the model's convergent validity and reliability are appropriate, allowing the researcher to move on to evaluating the structural model. Convergent validity is used to assess the scales' validity. Factor loading can guarantee convergent validity, and the criterion is that each scale should surpass 0.70 (Bagozzi & Yi, 1988; Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, 2014).

Measurement of Variables used in the study

There are nine constructs in the study. The measurement scale is adopted from the articles indexed on the web of science and Scopus in the context of financial capability and financial satisfaction. The measurement for this study is illustrated as follows:

Table 5 Variables Measurements

Variables	Items	References
Financial Attitude	It is important to set goals for the future	(OECD, 2011; Potrich et al., 2015)
	I tend to live for today and let tomorrow take care of itself	(Atkinson & Messy, 2012; OECD, 2011)
	After making a decision about money, I tend to worry too much about my decision	(Potrich et al., 2015)
	I find it more satisfying to spend money than save it for the long term	(Atkinson & Messy, 2012; OECD, 2011)
	Money is there to be spent	(Atkinson & Messy, 2012; OECD, 2011)
	If I borrow money, I have a responsibility to pay it back	(OECD, 2011, 2018)
Financial Knowledge	An Investment with a high return is likely to be high risky	(Lusardi & Mitchell, 2007; NFCS, 2012; OECD, 2011; Robb & Woodyard, 2011; A. Woodyard & Robb, 2012)
	High inflation means that the cost of living is increasing rapidly and money in saving account losses value	
	I understand the cost of buying on credit	
	Investing in different assets reduces risk	
	It is less likely that you will lose all of your money if you save them in more than one place	
	I am pretty good at math	
Financial Behavior	I follow a weekly or monthly plan for expenses.	(Atkinson & Messy, 2012; So-hyun Joo & Grable, 2004; OECD, 2011; Potrich et al., 2016)
	I set long term financial goals and strive to achieve them	
	Before I buy something, I carefully consider whether I can afford it	
	I pay my bills on time	
	I keep a close personal watch on my financial affairs.	
	I have plans to achieve my financial goals	
Financial Advice	I consider other opinions in financial decision making (buying, investing, savings, borrowings, etc.)	(Calcagno & Monticone, 2015; Financial Conduct

	I would trust financial professionals and accept what they recommend	Authority, 2017; NFCS, 2012)
	Financial advice is only suitable for people who have a large amount of money to invest	
	I would pay for financial advice if the costs were reasonable	
	I decide completely autonomously; the bank just executes my decisions	
	I tell bank/advisor how I intend to invest and ask for their opinion	
Financial Inclusion	For me, banking services are far and not easily accessible	(Fungáčová & Weill, 2014; The World Bank, 2017; Zins & Weill, 2016)
	For me, banking services are still expensive	
	Do you have enough documentation to have a bank account	
	One bank account is enough in my family	
	I don't need financial services	
	Non-banking financial services are easily accessible in my town/city (like insurance, microfinance, etc.)	
	Do you trust formal banks and the financial system	
Financial Capability	I could arrange at least 2000$ if an unexpected need arose within the next month	(FINRA, 2012; Finra Investor Education Foundation, 2018; Robb & Woodyard, 2011)
	I have enough funds to survive for three months without regular earnings	
	I often use electronic payment mode for paying bills through (credit card, debit card, online banking, mobile banking, etc.)	
	I have more than one/ several sources of income	
	I am good at dealing with day-to-day financial matters, such as checking accounts, credit and debit cards, and tracking expenses	
	I plan for retirement or have a retirement account	

	Have you ever calculated how much you need at retirement	
	Do you have insurance (such as health, life or accidental)	
Financial Satisfaction	I am satisfied with my current saved money.	(Chuan et al., 2012; Finra Investor Education Foundation, 2018; Greenley et al., 1997; So-hyun Joo & Grable, 2004; Robb & Woodyard, 2011)
	I am satisfied with my current preparedness to meet emergencies?	
	I am satisfied with my current financial situation?	
	I am satisfied with my financial convenience and financial health?	
	I am satisfied with my current financial management skills?	
	In the last months, I have been able to save money as much as I have wished.	
	Overall, thinking of your assets, debts, and savings, how satisfied are you with your current personal financial condition	
Risk Tolerance	In terms of investing, safety is more important than returns.	(So-hyun Joo & Grable, 2004)
	I am more comfortable putting my money in a bank account than in any risky option.	
	When I think of the word ‘‘risk’’, the term ‘‘loss’’ comes to mind immediately.	
	Making money in stocks and bonds is based on luck.	
	I lack the knowledge to be a successful investor.	
	Investing is too difficult to understand.	
Economic Hardship	I have enough income to meet my expenses	(Blom et al., 2019; Finra Investor Education Foundation, 2018; Ranta et al., 2019; Williams et al., 2015)
	I face trouble in paying rent/Mortgage, bills like electricity, etc.	
	I have to frequently cutbacks my personal expenditures	
	I have family and friends’ financial supports	

	How much money do you have leftover the day before your next paycheck or other income payment	
	Have you been late with debt payment, housing loan or any other	
	Do you have medical expenses bills burden on you	

Source: own research

4. DATA ANALYSIS AND RESULTS

The analysis part consists of two parts Quantitative and Qualitative.

4.1. Quantitative Analysis

The section has three parts: the details about the measurement model, the outcome of the structural model and third the results of the quantitative analysis. The section covers the validity and reliability of the research instruments and the descriptive statistics of the sample population utilized for the study. The researcher performed all the required tests to ensure the quality of the items, data and the final outcomes, also to determine the degree of suitability and compatibility of the study constructs items used and presented, the data were analyzed in three major steps recommended (Hair et al., 2017, 2019a; Joseph F. Hair et al., 2014).

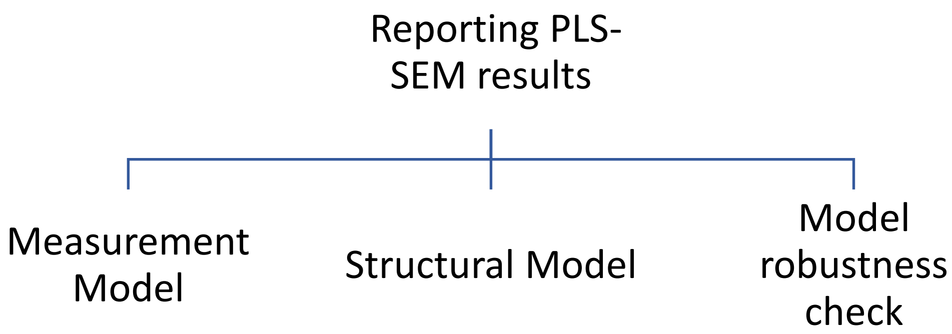

Figure 3 Reporting PLS-SEM results (Sources; (Hair et al., 2017, 2019a; Joseph F. Hair et al., 2014)

4.1.1. Part I Measurement Model

To analyze the proposed framework, the first step in PLS-SEM is to execute and verify the threshold specified under the measurement model. The relationship between indicators and latent variables is specified by the measurement model, also known as the outer model (Henseler et al., 2009). Before moving on to the structural model evaluation, the measurement model assessment was undertaken to make sure the quality standards were met. Therefore, four things are checked separately (see figure 4): Loading, Internal consistency, Convergent validity and discriminant validity. First, Indicator loading were checked and compared with the recommended threshold that the loadings should be above 0.70 (Hair et al., 2019b). The first part, called the measurement model, checked four things to ensure the quality, reliability, validity, discrimination between latent variables and consistency.

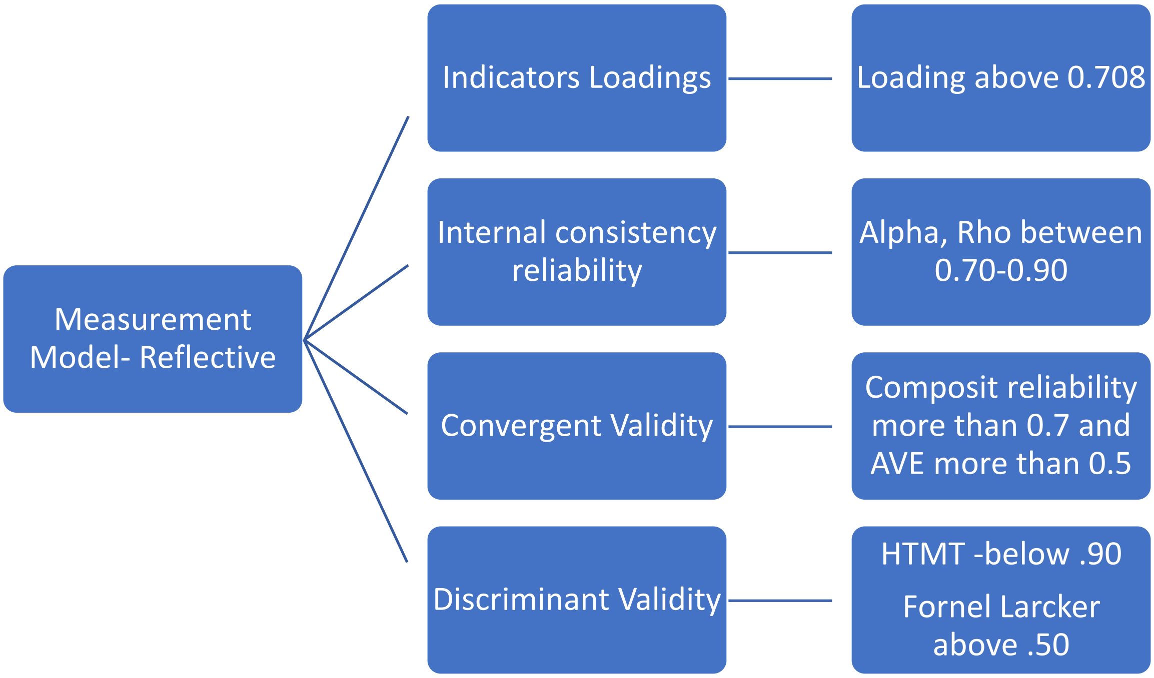

Figure 4 Model Measurement (Sources: (Hair et al., 2017, 2019a; Joseph F. Hair et al., 2014)

At the first step, the items' outer loading is checked. Those items with poor loading and higher HTMT, which is less than 0.70 and above 0.90, have been removed. Since the existing literature supports considering values above .60 which are close to 0.70, are acceptable and are used in many studies in a similar field (Ali et al., 2015; Gentjan Çera, Khan, Mlouk, et al., 2020). In general, loadings of the items which are less than 0.4 or 0.5 should be dropped (Hulland, 1999).

Based on this, the items whose value is very close to .70 have been taken into consideration in the present study, the rest were dropped (Table 06). Also, these very close to .7 do not significantly harm model fit or internal consistency. Based on the poor loading, which is below. 60 are removed and are as follows: Under financial attitude FA1, FA2 and FA5 are moved. Under Financial advice, FAD1 and FAD3 have been removed. Similarly, under financial capability FC1, FC3, FC5 and FC7. Under financial inclusion FI1, FI2, and FI4 and under Financial knowledge FK1, FK3 and FK5. Under financial satisfaction FS1 and FS6, and under Risk tolerance, RT1 has been removed. Under financial behaviour FB1, FB3 and FB5, and under financial hardship FH1.

Table 6 Factor loading and Variance inflation factor (VIF)

	Code	**Items**	**Loadings**	**VIF**
Financial Attitude	FA2	I tend to live for today and let tomorrow take care of itself	0.795	1.608
	FA4	I find it more satisfying to spend money than save it for the long term	0.878	1.987
	FA6	If I borrow money, I have a responsibility to pay it back	0.802	1.467
Financial Advice	FAD2	I would trust financial professionals and accept what they recommend	0.839	1.924
	FAD4	I would pay for financial advice if the costs were reasonable	0.852	2.285
	FAD5	I decide completely autonomously; the bank just executes my decisions	0.686	1.375
	FAD6	I tell bank/advisor how I intend to invest and ask for their opinion	0.839	2.047
Financial Behaviour	FB2	I set long term financial goals and strive to achieve them	0.855	1.796
	FB4	I pay my bills on time	0.903	2.605
	FB6	I have plans to achieve my financial goals	0.877	2.309
Financial Capability	FC2	I have enough funds to survive for three months without regular earnings	0.788	1.645
	FC4	I have more than one/ several sources of income	0.828	2.033
	FC6	I plan for retirement or have a retirement account	0.843	2.300
	FC8	Do you have insurance (such as health, life or accidental)	0.819	1.975
Financial Hardship	FH2	I face trouble in paying rent/Mortgage, bills like electricity, etc.	0.809	2.016
	FH3	I have to frequently cutbacks my personal expenditures	0.695	1.601

	FH4	I have family and friends' financial supports	0.752	1.700
	FH5	How much money do you have leftover the day before your next paycheck or other income payment	0.710	1.607
	FH6	Have you been late with debt payment, housing loan or any other	0.721	1.782
	FH7	Do you have medical expenses bills burden on you	0.690	1.533
Financial Inclusion	FI3	Do you have enough documentation to have a bank account	0.785	1.736
	FI5	I don't need financial services	0.753	1.454
	FI6	Non-banking financial services are easily accessible in my town/city (like insurance, microfinance, etc.)	0.759	1.373
	FI7	Do you trust formal banks and the financial system	0.779	1.537
Financial Knowledge	FK2	High inflation means that the cost of living is increasing rapidly and money in saving account losses value	0.882	2.172
	FK4	Investing in different assets reduces risk	0.910	2.801
	FK6	I am pretty good at math	0.884	2.262
Financial Satisfaction	FS2	I am satisfied with my current preparedness to meet emergencies?	0.828	2.509
	FS3	I am satisfied with my current financial situation?	0.787	1.834
	FS4	I am satisfied with my financial convenience and financial health?	0.841	2.724
	FS5	I am satisfied with my current financial management skills?	0.786	2.042
	FS7	Overall, thinking of your assets, debts, and savings, how satisfied are you with your	0.826	2.228

		current personal financial condition		
Risk Tolerance	RT2	I am more comfortable putting my money in a bank account than in any risky option.	0.858	2.215
	RT3	When I think of the word ‘‘risk’’, the term ‘‘loss’’ comes to mind immediately.	0.693	1.812
	RT4	Making money in stocks and bonds is based on luck.	0.784	2.125
	RT5	I lack the knowledge to be a successful investor.	0.693	1.917
	RT6	Investing is too difficult to understand.	0.818	1.992

Source: own research

The internal consistency reliability of the reflective measurement model is evaluated in the second stage (Table 07). In exploratory research, reliability levels between 0.60 and 0.70 are acceptable; values between 0.70 and 0.90 imply satisfactory to good. Even while high values are preferable, values above 0.95 are regarded as troublesome since they indicate that the indicators are redundant, which lowers construct validity (Hair et al., 2019). In the case of the PLS-SEM approach in particular, composite reliability is thought to be more resilient than the two statistics given (Cronbach's alpha and composite reliability) (Hair et al., 2019). All the values were found within the permissible range. Cronbach’s Alpha is above 0.7 in all the variables, all are between 0.766 to 0.873 indicates acceptable good level. Regarding rho a which vary from 0.774 to 0.874. The scale's reliability falls between good and good according to the general guideline. These results demonstrate that internal consistency reliability is not a problem for the current study.

Table 7 Internal consistency reliability

Variables	Cronbach's Alpha	rho_A	Composite Reliability
FA	0.766	0.768	0.865
FAD	0.819	0.829	0.881
FB	0.852	0.852	0.910
FC	0.837	0.837	0.891
FH	0.826	0.834	0.873
FI	0.772	0.774	0.853
FK	0.872	0.872	0.921
FS	0.873	0.874	0.908
RT	0.831	0.850	0.880

Source: own research

Furthermore, convergent validity is the degree to which a construct converges to describe the variance of its constituent parts. The (AVE) average variance extracted for all the indicators on a construct is the statistic used to assess it. The AVE is calculated by squaring the loading of each indication on a construct and summing the mean value. A value of 0.50 or above shows that the construct clarifies at least 50% of the variation amongst its items (Hair et al., 2019). For each set of constructions' components, the AVE metric is calculated, and the results are displayed in Table 08. All AVE values are discovered to be higher than 50%, which means that all evaluated constructs account for more than half of the variation in their indicators. The highest AVE value is 0.796, while the lowest AVE value is 0.534.

Table 8 Convergent validity – AVE

Variables	**Average Variance Extracted (AVE)**
FA	0.682
FAD	0.651
FB	0.772
FC	0.672
FH	0.534
FI	0.592
FK	0.796
FS	0.663
RT	0.596

Source: own research

4.1.2. Discriminant validity and correlation between variables

The fourth step is to find the Discriminant validity in assessing a reflective measurement model. A construct's discriminant validity measures how different it is from other constructs in the structural model in terms of empirical diversity. The standard metric was proposed by Fornell and Larcker (1981), who suggested comparing the AVE of each construct to the squared inter-construct correlation of that construct and any other constructs in the structural model that were reflectively evaluated (as a measure of shared variance). All model constructs' shared variances shouldn't exceed their AVEs. However, a new study advises that this metric is not suitable for assessing discriminant validity. For instance, Henseler et al. (2015) reveal that the Fornell- Larcker criterion does poorly, particularly when the item loadings on a construct just slightly differ from each other. That's why the present study checks the values with both fornell larcker and HTMT as well. The current research ensures that the value is above and within the threshold limits, which provides the model's discriminant validity.

Henseler et al. suggested the heterotrait-monotrait (HTMT) ratio of the correlations as the most appropriate metric for this (2015). The definition of the HTMT is " The (geometric) mean of the average correlations for the items measuring the same construct as compared to the mean value of the item correlations across constructs " (Hair et al., 2019, p. 9). When HTMT values are high, the model experiences problems with discriminant validity. The threshold value of 0.90 is advised. That’s why some of the items were removed with low loading and higher htmt values.

Table 9 Fornell larcker criterion

	FA	**FAD**	**FB**	**FC**	**FH**	**FI**	**FK**	**FS**	**RT**
FA	0.826								
FAD	0.603	0.807							
FB	0.668	0.694	0.878						
FC	0.582	0.688	0.593	0.820					
FH	0.584	0.685	0.589	0.675	0.731				
FI	0.614	0.653	0.700	0.609	0.584	0.769			
FK	0.713	0.657	0.704	0.643	0.584	0.662	0.892		
FS	0.549	0.600	0.576	0.664	0.625	0.573	0.629	0.814	
RT	0.686	0.567	0.612	0.538	0.670	0.673	0.667	0.566	0.772

Source: own research

Table 10 HTMT

	FA	**FAD**	**FB**	**FC**	**FH**	**FI**	**FK**	**FS**	**RT**
FA									
FAD	0.761								
FB	0.822	0.836							
FC	0.722	0.827	0.698						
FH	0.734	0.819	0.696	0.791					
FI	0.791	0.821	0.862	0.740	0.710				
FK	0.869	0.777	0.815	0.749	0.678	0.801			
FS	0.668	0.712	0.668	0.774	0.719	0.691	0.718		
RT	0.849	0.672	0.724	0.616	0.796	0.853	0.782	0.650	

Source: own research

4.1.3. Results- Structural Model

This section deals with the results found under structural model assessment. To ensure that collinearity is not skewing the regression results, it must be investigated before evaluating the structural correlations. The VIF values should ideally be below or near to 3. Collinearity issues can occasionally also manifest at lower VIF levels of 3-5.

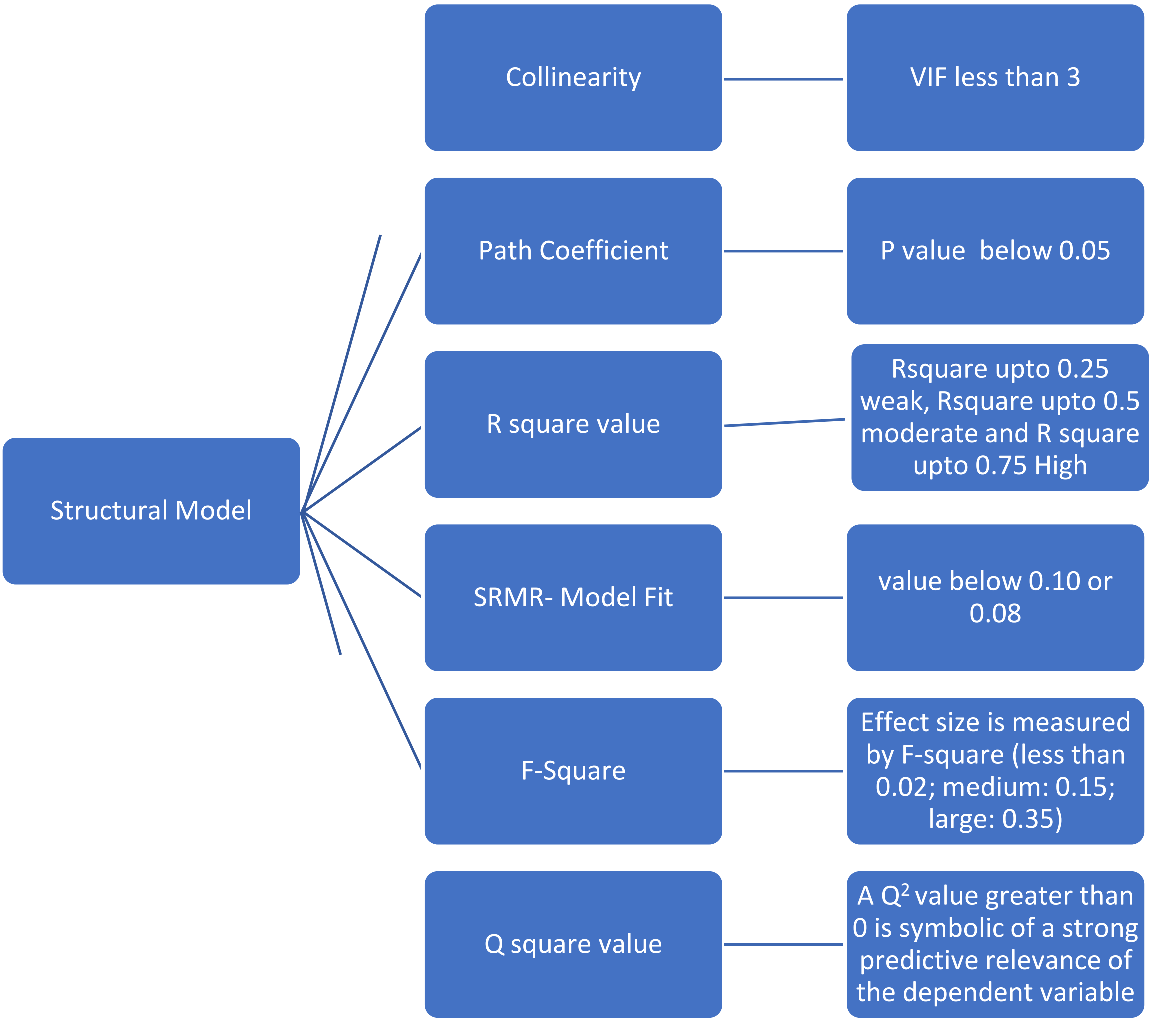

Figure 5 Structural Model (Sources: (Hair et al., 2017, 2019a; Joseph F. Hair et al., 2014)

In the present study all the values are below 3.

Table 11 Full collinearity test Inner VIF Values

	FC	**FS**
FA	2.427	
FAD	2.698	
FB	2.859	1.931
FC		2.063
FH	2.129	2.471
FI	2.414	
FK	2.778	

FS		
RT		2.092

Source: own research

4.1.4. Hypotheses testing

As stated in section 4, Data analysis, SmartPLS 3.0 uses the PLS-SEM technique to evaluate hypotheses. The results of framed hypotheses can be seen in Table 13. The concluding remarks are added on whether the framed hypotheses are supported or not by the data analysis. The bootstrap procedure is used to calculate these pathways, with 5000 iterations of resampling.

Table 12 reveals the results of PLS-sem. Total ten hypotheses were tested with investigated the direct effect on the dependent variables. The outcome of the analysis reveals that eight framed hypotheses are statistically significant, and two were found insignificant. Regarding the factors determining financial capability, out of total six direct relationship, two found i.e financial attitude ($\beta = 0.057$, $t = 0.905$, $p < 0.05$) and Financial behaviour ($\beta = -0.063$, $t = 0.220$, $p < 0.05$) both rejected the framed hypotheses, thus show insignificant positive impact on financial capability. On the other side, four relationship i.e Financial advice ($\beta = -0.063$, $t = 4.176$, $p > 0.05$), Financial Inclusion ($\beta = -0.055$, $t = 2.111$, $p > 0.05$), Financial knowledge ($\beta = -0.060$, $t = 3.287$, $p > 0.05$) and Economic hardship ($\beta = -0.055$, $t = 5.269$, $p > 0.05$) were found significant and support the framed hypotheses.

Second, all four framed hypotheses were found statistically significant regarding the determinants of financial satisfaction. Financial behaviour ($\beta = 0.048$, $t = 3.353$, $p > 0.05$) financial capability ($\beta = 0.055$, $t = 6.558$, $p > 0.05$) economic hardship ($\beta = 0.064$, $t = 2.903$, $p > 0.05$) and Risk Tolerance ($\beta = -0.058$, $t = 2.515$, $p > 0.05$) were significant and all the proposed hypotheses are found supported. Hence the data analysis supports the following hypotheses, H1a, H1b, H1d, H1f and H2a, H2b, H2c, and H2d, except for H1c and H1e.

Table 12 Path Coefficient

	Original Sample (O)	**Sample Mean (M)**	**Standard Deviation (STDEV)**	**T Statistics (|O/STDEV|)**	**P Values**
FA -> FC	0.052	0.050	0.057	0.905	**0.366**
FAD -> FC	0.263	0.263	0.063	4.176	**0.000**
FB -> FC	-0.014	-0.015	0.063	0.220	**0.825**
FB -> FS	0.161	0.161	0.048	3.353	**0.001**
FC -> FS	0.363	0.362	0.055	6.558	**0.000**
FH -> FC	0.290	0.292	0.055	5.269	**0.000**
FH -> FS	0.187	0.187	0.064	2.903	**0.004**

FI -> FC	0.116	0.117	0.055	2.111	**0.035**
FK -> FC	0.196	0.197	0.060	3.287	**0.001**
RT -> FS	0.147	0.150	0.058	2.515	**0.012**

Source: own research

Table 13 Hypotheses testing – conclusion

Hypothesis		Conclusion
H1a.	Financial inclusion has a positive effect on financial capability	Supported
H1b.	Financial advice and counselling have a positive influence on financial capability	Supported
H1c.	Financial attitude has a positive effect on financial capability	Rejected
H1d.	Financial knowledge has a positive effect on financial capability	Supported
H1e.	Financial Behaviour has a positive effect on financial capability	Rejected
H1f.	Economic hardship has a negative effect on Financial capability	Supported
H2a.	Financial behaviour has a positive effect on financial satisfaction	Supported
H2b.	Financial capability has a positive effect on financial satisfaction	Supported
H2c.	Economic hardship has a negative effect on financial satisfaction	Supported
H2d.	Risk tolerance has a negative effect on financial satisfaction	Supported

Source: own research

R Square Value

Next in line is the assessment of the model's in-sample predictive power. The R^2 values reported by the model in the case of financial capability 59%, and in financial satisfaction, 52% of the variation in the dependent variable, which as per the threshold given by the researchers, falls in the above moderate (Hair et al., 2019a).

Based on these criteria, R-square up to 0.25 is weak, the R-square up to 0.5 moderate and the R-square up to 0.75 is High. Hence the present analysis results fall in the category of high R-square.

Table 14 R-Square

	R Square	R Square Adjusted
FC	0.596	0.590
FS	0.533	0.529

Source: own research

Model Fit

The model's variance between the observed correlation and the matrix of implied correlations is known as the SRMR. As a result, it allows assessment based on the criterion of model fit using the average extent of the differences between observed and expected correlations. A value below 0.10 or 0.08 (in a more conservative version; see Hu and Bentler, 1999) is believed to be a decent fit. Henseler et al. (2014) To prevent model misspecification, introduce the SRMR as a goodness of fit metric for PLS-SEM.

Table 15 Model Fit

	Saturated Model	Estimated Model
SRMR	0.071	0.072
d_ULS	3.557	3.647
d_G	1.342	1.350
Chi-Square	3016.825	3033.928
NFI	0.712	0.710

Source: own research

F square

When an exogenous variable is taken out of the model, the R-Square changes, which is known as the F-Square. Effect size is measured by F-square (less than 0.02; medium: 0.15; large: 0.35) (Cohen, 1988).

Table 16 F-Square

	FC	**FS**
FA	0.003	
FAD	0.064 (Small)	
FB	0.000	0.029 (Small)
FC		0.137 (Small)
FH	0.098 (Small)	0.030 (Small)
FI	0.014	
FK	0.034 (Small)	
RT		0.022 (Small)

Source: own research

PLS-Predict- Q square value

Q-square is a metric of predictive relevance that determines whether or not a model is predictively relevant. When the Q-square is greater than zero, the model is predictively relevant, and your values have been accurately recreated.

The examination also derived the Q^2 values using the blindfold technique utilizing SmartPLS3 (Hair et al., 2017). A Q^2 value greater than 0 is symbolic of a strong predictive relevance of the dependent variable (Fornell & Cha, 1994) (refer to Table-17). Q^2 values in both cases, financial capability and financial satisfaction, is above zero, which means that the model has predictive relevance.

Table 17 Q- square PLS Predict

	Q^2_predict
FC	0.398
FS	0.344
	Source: own research

4.2. Qualitative Analysis

Textual information is used to obtain qualitative data. As a result, the study used a word cloud for its text. A visual depiction of words is a word cloud, often called a tag cloud. Based on frequency and relevance, cloud designers are accustomed to emphasizing well-known words and phrases. They give you rapid, clear visual insights that can help to conduct a more thorough analysis.

A Word Cloud can instantly analyze any text and present important information. A word cloud could serve as a starting point for focusing on the key ideas. The researcher would already be aware of which terms or ideas are most prevalent and consequently call for further examination, which might save a lot of time when coding qualitative data. The word cloud serves as a road map for additional investigation in this way. This method would also be useful when examining text data from open-ended survey questions, exit interviews, supervisor assessments of student teaching or internships, or any other qualitative research or assessment data (Atenstaedt, 2012; Bletzer, 2015; DePaolo & Wilkinson, 2014; Verdugo-Castro et al., 2019). The analysis used word cloud to identify the keywords based on the frequency and relevance in the text.

Financial capability

- To Explore and understand how low-income individuals' financial capability can be improved and built. Highlight the factors and explain what contributes to or needs to be the focus and how to improve and develop the financial capability of low-income individuals. (No words limit).

Figure 6 Word Cloud-Financial Capability Source: own research

Table 18 Theme categorization- Financial Capability

Word	Frequency	Relevance	Theme Categorization
financial knowledge	11	0.664	Financial Knowledge
financial future orientation	5	0.498	Financial Advice
financial practice	7	0.465	Financial Behaviour
consistent money management	4	0.399	Financial Behaviour
savings account	6	0.399	Financial Inclusion
parents involvement	5	0.332	Financial Socialization
financial inclusion	5	0.332	Financial inclusion
digital skills	6	0.266	Financial knowledge
money management	9	0.266	Financial Behaviour

socioeconomic characteristics	3	0.199	Demographic factors
early stage	3	0.199	Financial Planning
income family	2	0.133	Demographic factors
wealth household	2	0.133	Financial resources
personal resources	2	0.133	Financial resources

Source: own research

Financial satisfaction

- To Explore and understand how low-income individuals' financial satisfaction can be enhanced and improved. Highlight the factors and explain what contributes to or needs to be the focus and how to improve and increase the financial satisfaction of low-income individuals. (No words limit)

Figure 7 Word Cloud-Financial Satisfaction *Source: own research*

Table 19 Theme Categorization- Financial Satisfaction

Word	Frequency	Relevance	Theme categorization
financial confidence	5	0.161	Financial Behaviour
behavioural control	4	0.129	Financial Behaviour
financial situation	4	0.129	Demographic factors
financial behaviour	4	0.129	Financial Behaviour
future orientation	4	0.129	Financial Advice
sense of control	2	0.097	Financial attitude
attitude	11	0.075	Financial attitude
long run	2	0.064	Financial Advice
positive behaviour	3	0.064	Financial behaviour
family background	2	0.064	Demographic factors
financial advice	3	0.064	Financial advice
financial security	2	0.064	Financial capability
family wealth	2	0.064	Financial resources
financial knowledge	3	0.064	Financial knowledge
client	7	0.061	Financial advice
practitioners	5	0.051	Financial advice

Source: own research

5. DISCUSSION

Since the present study intends to examine the factors influencing financial capability and satisfaction, the results are emphasized and explored concerning the subsequent research problems and questions.

RQ1. How does financial inclusion, financial advice and counselling, financial attitude, financial knowledge, financial behaviour, and economic hardship affect the financial capability of low-income individuals in India?

RQ2. How does financial behaviour, financial capability, economic hardship, and risk tolerance affect the financial satisfaction of low-income individuals in India?

Factors affecting Financial Capability

Regarding the first question mentioned above, except for financial attitude and financial behaviour, the rest confirms their positive impact on financial capability among low-income individuals in the context of the developing country. Comparing the results of the present study finding with the existing studies reflect quite a lot of matching between them. The first hypothesis, which examined whether financial inclusion has a positive effect on financial capability, was found significant, and it found similarities with the existing studies (Gentjan Çera, Khan, Mlouk, et al., 2020; Potocki & Cierpiał-Wolan, 2019).

The current study is consistent with earlier studies since it demonstrates a favorable effect of financial inclusion on financial capability. In the context of an external opportunity for financial competence building, it highlights the importance of financial inclusion as a key component ((Huang et al., 2013; Mundy, 2011; Sherraden et al., 2015b; Sun et al., 2022). Financial advice and counselling are other factors that positively affect financial capability, and this finding is consistent with several existing studies (Georgarakos & Inderst, 2011; Johnson & Sherraden, 2007). Previous studies revealed that financial attitude is an effective aspect that contributes to financial capability building. However, the present study's finding competes against the earlier studies (Sherraden & Ansong, 2016), but it matches with other studies that it does not have a significant positive effect on financial capability (Khan et al., 2022; Von Stumm et al., 2013). Furthermore, the analysis found a positive impact of Financial knowledge on financial capability and this support the importance of financial knowledge for building financial capability like many prior studies (G Çera et al., 2019; Potocki & Cierpiał-Wolan, 2019; Serido et al., 2013; Vlaev & Elliott, 2017b; Xiao et al., 2014).

The present study does not support that financial behaviour positively affects financial capability. That's a quite interesting finding and goes against the existing (Gentjan Çera, Khan, Mlouk, et al., 2020; Potocki & Cierpiał-Wolan, 2019; Serido et al., 2013; Vlaev & Elliott, 2017b). The present study's definition and measurement of financial behaviour and capability need additional effort to distinguish and justify this. One could argue that a better scale would enable financial behaviour to be assessed more effectively. It adds another advantageous element to the literature that already exists.

Another hypothesis which tested economic hardship has a negative effect on financial capability is supported by the present study. And found that it has a negative impact on financial capability. Low financial capability individuals might have a higher chance of financial difficulties, which explains a negative association between economic hardship and financial capability, suggesting that high financial capability reduces one's risk of experiencing economic hardship (Huang et al., 2015), and economic hardship is associated with low financial capability (Ranta et al., 2019; Sun et al., 2022). Not only do economic hardships directly affect well-being, but they also have detrimental consequences on other areas of life. Research using the Family Economic Stress Model has demonstrated the detrimental effects of family financial stress brought on by a recession or unstable employment (Conger, Rand D.; Elder, Glen H., 1994).

Factors affecting financial satisfaction

Financial behaviour has a positive effect on financial satisfaction, which is supported by the present study and shares similarities with other studies (Arifin, 2018; Hasibuan et al., 2018; Xiao & O'Neill, 2018; Xiao & Porto, 2017; Zainul, 2018).

Financial capability has a positive effect on financial satisfaction, is also supported by the present study and put forward an argument that financial capability has a vital role in explaining an individual's financial satisfaction. This finding is consistent with prior studies (Gentjan Çera, Khan, Belas, et al., 2020), which show a positive association between financial capability and financial satisfaction (Khan et al., 2022; Xiao et al., 2014). Hence it can be claimed in the light of the present study results and other existing studies that financial capability positively influences financial satisfaction and could be complementary to each other.

The analysis reveals that economic hardship has a negative effect on financial satisfaction, and in the light of the previous studies, the finding is consistent (Lee & Dustin, 2021) and reduces satisfaction in the general stream of life as well (Blom et al., 2019; J. Shim et al., 2017). Hence the present study aligns its finding with the existing studies that there is a negative association between economic hardship and financial satisfaction. Finally, the results also support the last hypothesis that risk tolerance has a negative effect on financial satisfaction. The previous studies support that risk tolerance has a positive association with financial satisfaction (Aboagye & Jung, 2018; Jeong & Hanna, 2004), which is against the present study result. Before this study finding, to the extent of the researcher's knowledge, only (S Joo & Grable, 2004) found a negative connection between risk tolerance and financial satisfaction. Hence, these findings add that this phenomenon can reverse from the concept that higher risk leads to higher financial satisfaction, especially in the low-income segment.

6. BENEFITS OF THE STUDY

Driven by the capability theory (Sen, 1993a) and further extended concept of financial capability (Johnson & Sherraden, 2007), advocated that both ability and opportunity are important for financial capability building. Based on this, the present thesis provides an original and enhanced conceptual framework to find both how ability in the form of (financial behaviour, financial knowledge and financial attitude) and opportunity in the form of (financial advice and counselling and financial inclusion) along with factors such as (risk tolerance and economic hardship) influence financial capability and financial satisfaction among low-income individuals in the context of the emerging economy. Below are the expanded theoretical and practical benefits of the present thesis results.

Theoretical Contribution

This section describes the study's outcome's theoretical contribution, and practical implications.

Contributions to Theory

This research has augmented the existing literature related to the individual’s financial capability and financial satisfaction focused on the capability approach by Nobel laureate Amartya Sen and the concept extended by Margaret Sherraden and co-authors.

This dissertation developed and verified an extended framework to determine an individual’s financial capability and financial satisfaction with a specific focus on low-income individuals. Accordingly, the key factors determining the financial capability and financial satisfaction are determined. The current research contributes to the financial capability literature by combining different perspectives of capability theory in an improved and unique research model. It can be inferred from the discussion in the literature review section as well as the justification and arguments offered by this study, that capability theory, which only illuminates from a capability theory perspective, does not provide a comprehensive picture of the factors that determine financial capability. The present study also severed those factors which can reduce financial capability and satisfaction.

Similarly, in the light of capability theory, capability comes when both ability and opportunity are present. In addition, Economic hardship and risk tolerance add an extension to the theory, which can play a role as the negative factors that need to be controlled or managed properly in building individuals' financial capability and satisfaction. However, jointly, the three viewpoints can provide a improved picture of the determinants of financial capability and financial satisfaction. This integration offers a far better explanation on what affects the financial capability and financial satisfaction of low-income individuals in an emerging economy.

In Short, the contribution to the literature is as follows

- The tested conceptual framework linked how individuals’ abilities and external opportunities affect financial Capability and satisfaction among low-income individuals.
- An integrated framework identified the determinants of financial capability and financial satisfaction in the context of low-income individuals in an emerging economy.
- Explored the role of financial advice (which is not yet included in any study), financial inclusion, financial literacy components on financial capability, and how economic hardship and risk tolerance negatively influences financial satisfaction.
- Mix-method approach in the context of the current topic and in the chosen location of study.
- Add to the context of financial capability literature in developing countries, which is not much studied yet to the extent of the author's knowledge.

Practical Implications

The outcomes of the study can help concern policymakers and social practitioners in their practices

- The outcomes are informative for individuals, policymakers, financial planners, and educators to develop adequate financial capability building and inclusion programs to improve individuals' financial capability and satisfaction.
- The results contribute toward Educational curriculum design for financial capability improvement, specifically in the weaker section of the society and at the early stage of education.
- Findings might be useful in policymaking at local, state, and central levels of government and non-government organizations.
- The outcomes provide new insight, especially for the financial planners and financial advisors to understand the factors which are key in financial capability building and achieving a state of financial satisfaction.
- It will help channel and mobilize their hard-earned money in-country financial markets, which is also good for the economy.

Specific Recommendation

- Financial institutions must give a short demo or lesson when opening a bank account (especially first-time bank account openers). In this way, individuals can gain the right approach, knowledge, and behaviour to use it optimally for their financial capability building. Many times, especially in India, free saving accounts are opened, but the users don't know how much interest or charges they pay for the services. Therefore, the present study recommends that the banks provide short training when opening an account specifically for the low-income segment.

- Children learn from their parents. Therefore, the role of parents, family socialization and digital skills are also key aspects of financial capability and financial satisfaction improvement. Therefore, school colleges or non-profit social organisations can run periodical sessions for parents, especially those from poor educational or low-income backgrounds. Universities and schools can do this through the university of the third age or from their CSR activities. Give short training or session periodically to parents and community members. Giving financial education to parents is giving financial education to kids indirectly.

- Like doctors, just like everyone must have their general practitioners, why not a financial advisor? After all, health and wealth are the two most precious things for any individual. This needs active regulation from the government and institutions.

7. CONCLUSION

However, the association between financial capability and financial satisfaction has not been extensively researched and addressed from various theoretical angles. That’s what the present study intended to do. In an integrated framework, no prior research covered the three stances, ability, opportunity, and the factors that reduce them. By joining the three viewpoints together, this effort intends to address such research gaps by investigating an augmented theoretical framework focused on the direct effects of financial inclusion, financial advice and counselling, financial knowledge, financial attitude, financial behaviour and economic hardship on financial capability. Also, the factors affecting financial satisfaction such as financial behaviour, financial capability, economic hardship and risk tolerance. This need is more for emerging economies coping with severe financial challenges.

This study adds to the existing literature by responding to the below-listed research questions:

- To what extent do financial inclusion and financial advice and counselling as an opportunity affect financial capability?
- To what extent do financial knowledge, financial attitude, and financial and financial behaviour as an ability affect financial capability?
- How do financial capability, behaviour, economic hardship and risk tolerance affect financial satisfaction?
- Also, it provides direction for further exploration of risk tolerance, specifically in the low-income segment, since this study suggests that risk tolerance negatively affects financial satisfaction.

In summary, this study did an extensive literature review. A conceptual framework was developed in light of the main theory used to explain financial capability and financial satisfaction. Hypotheses are designed to test the direct influences of financial advice, financial inclusion, financial behaviour, financial knowledge, and financial attitude on financial capability. Additional hypotheses are formulated to explore the effect of financial behaviour, financial capability, economic hardship and risk tolerance on financial satisfaction

The research design for this study is a survey strategy since it allows for the testing of the proposed hypotheses. After refining the variable measurement, a questionnaire based on the literature review was created and completed by low-income people in the Indian state of Uttar Pradesh. Overall, 510 questionnaires were gathered, however only 407 were used in the study after the data were cleaned.

The developed hypotheses were put to the test using the PLS-SEM method. In order to make sure that the analysis can produce reliable results, a number of assumption checks were done before to looking at them. Item, scale, and convergent reliability tests were therefore conducted. Prior to evaluating the hypotheses, discriminant validity is also performed, along with a correlation analysis of the latent variables. This problem is not present in this thesis, according to the comprehensive collinearity test. More so, a supportive qualitative analysis was also conducted, subjective answers were taken from the industry experts, and text analysis was done to draw a meaningful answer, which helped give the concluding remarks and a holistic view of the study findings.

The results of the work show the same as what was expected except for the two hypotheses, Financial attitude does not have a significant positive effect on financial capability. Also, financial behaviour does not positively impact individuals' financial capability among low-income segments. Implementing this improved conceptual framework revealed that the integration of ability and opportunity reasonably explains how individuals can improve or build their financial capability and enhance their financial satisfaction.

7.1. Limitations and Future research agenda

Though the current study achieved its set objectives, there are limitations in the research. Firstly, our findings are limited to only one region of India, and there is no comparison with other countries. To get more clarity and will be even better to compare with those countries which might share the same conditions in terms of regional, economic, institutional and political environments. Therefore, our findings can be generalized only to developing and transition countries, more specifically to the location the study covered. Secondly, it is questionable to assume that the identified relationships could continue for an infinite time and affect financial capability and satisfaction, as explained in this thesis. Thirdly, from a methodological procedure perspective, the self-reporting approach measures individuals’ perceptions about the factors affecting financial capability and financial satisfaction, which may lead to potential bias. Also

Future research may examine how the COVID-19 pandemic affects people's capacity to manage their finances and their level of financial pleasure by applying the capability theory and other pertinent theories. These theories can serve as the foundation for a more sophisticated conceptual framework that models a person's capacity to respond to external influences and changes, such as the pandemic. Such an effort would improve the research community's understanding. Therefore, it is advised that academics incorporate these viewpoints into their study models going forward. By doing this, the effects of the COVID-19 pandemic on people's financial capability and financial contentment can be better understood while researching financial capability under pressure from the outside world.

Also, the tested model can be further extended in the context of different economics at different income levels or segments of society. The present frameworks give several other ways the researcher can understand in future. Researchers can also test or integrate other theories to develop a comprehensive framework.

REFERENCES

Aboagye, J. & Jung, J. Y. (2018). Debt holding, financial behavior, and financial satisfaction. *Journal of Financial Counseling and Planning*, *29*(2), 208–218. https://doi.org/10.1891/1052-3073.29.2.208

Ajzen, I. (2009). Theory of Planned Behavior Measure. *Change. Journal of Health Psychology*, *12*(1), 1–8. https://doi.org/10.1037/t15668-000

Ali, A., Rahman, M. S. A. & Bakar, A. (2015). Financial Satisfaction and the Influence of Financial Literacy in Malaysia. *Social Indicators Research*, *120*(1), 137–156. https://doi.org/10.1007/s11205-014-0583-0

Aprea, C., Wuttke, E., Breuer, K., Koh, N. K., Davies, P., Greimel-Fuhrmann, B. & Lopus, J. S. (2016). International handbook of financial literacy. In *International Handbook of Financial Literacy*. Springer Singapore. https://doi.org/10.1007/978-981-10-0360-8

Arifin, A. Z. (2018). Influence Factors toward Financial Satisfaction with Financial Behavior as Intervening Variable on Jakarta Area Workforce. *European Research Studies Journal*, *XXI*(1), 90–103.

Asebedo, S. & Payne, P. (2019). Market Volatility and Financial Satisfaction: The Role of Financial Self-Efficacy. *Journal of Behavioral Finance*, *20*(1), 42–52. https://doi.org/10.1080/15427560.2018.1434655

Asiamah, N., Mensah, H. K., Fosu Oteng-Abayie, E. & Kofi Mensah, H. (2017). Do Larger Samples Really Lead to More Precise Estimates? A Simulation Study. *American Journal of Educational Research*, *5*(1), 9–17. https://doi.org/10.12691/education-5-1-2

Atenstaedt, R. (2012). Word cloud analysis of the BJGP. *British Journal of General Practice*, *62*(596), 148–148. https://doi.org/10.3399/bjgp12X630142

Atkinson, A., McKay, S., Collard, S. & Kempson, E. (2007). Levels of financial capability in the UK. *Public Money and Management*, *27*(1), 29–36. https://doi.org/10.1111/j.1467-9302.2007.00552.x

Atkinson, A., McKay, S., Kempson, E. & Collard, S. (2006). *Levels of financial capability in the UK: Results of a baseline survey*. Financial Services Authority.

Atkinson, A. & Messy, F.-A. (2012). *Measuring Financial Literacy: Results of the OECD / International Network on Financial Education (INFE) Pilot Study*. OECD Publishing. https://doi.org/10.1787/5k9csfs90fr4-en

Bagozzi, R. P. & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, *16*(1), 74–94.

https://doi.org/10.1007/BF02723327

Bagwell, S., Hestbaek, C., Harries, E. & Kail, A. (2014). Financial capability outcome frameworks. In *University of Glasgow* (Issue August).

Banerjee, M. M. (2016). "We routinely borrow to survive": Exploring the financial capability of income-poor people in India. *Social Work (United States)*, *61*(4), 349–358. https://doi.org/10.1093/sw/sww045

Batty, M., Collins, J. M. & Odders-White, E. (2015). Experimental evidence on the effects of financial education on elementary school students' knowledge, behavior, and attitudes. *Journal of Consumer Affairs*, *49*(1), 69–96. https://doi.org/10.1111/joca.12058

Bhushan, P. & Medury, Y. (2014). an Empirical Analysis of Inter Linkages Between Financial Attitudes , Financial Behaviour and Financial Knowledge of Salaried Individuals. *Indian Journal of Commerce & Management Studies*, *V*(3), 58–64.

Bletzer, K. V. (2015). Visualizing the qualitative: making sense of written comments from an evaluative satisfaction survey. *Journal of Educational Evaluation for Health Professions*, *12*(596), 12. https://doi.org/10.3352/jeehp.2015.12.12

Blom, N., Kraaykamp, G. & Verbakel, E. (2019). Current and Expected Economic Hardship and Satisfaction With Family Life in Europe. *Journal of Family Issues*, *40*(1), 3–32. https://doi.org/10.1177/0192513X18802328

Brady, S. R. (2015). Utilizing and Adapting the Delphi Method for Use in Qualitative Research. *International Journal of Qualitative Methods*, *14*(5), 160940691562138. https://doi.org/10.1177/1609406915621381

Brüggen, E. C., Hogreve, J., Holmlund, M., Kabadayi, S. & Löfgren, M. (2017). Financial well-being: A conceptualization and research agenda. *Journal of Business Research*, *79*, 228–237. https://doi.org/10.1016/j.jbusres.2017.03.013

Calcagno, R. & Monticone, C. (2015). Financial literacy and the demand for financial advice. *Journal of Banking and Finance*, *50*, 363–380. https://doi.org/10.1016/j.jbankfin.2014.03.013

Campara, J. P., Vieira, K. M. & Potrich, A. C. G. (2017). Satisfação Global de Vida e Bem-estar Financeiro: Desvendando a percepção de beneficiários do Programa Bolsa Família. *Revista de Administracao Publica*, *51*(2), 182–200. https://doi.org/10.1590/0034-7612156168

Çera, G, Poleshi, B., Khan, K. A., Shumeli, A. & Kojku, O. (2019). Determinants of financial capability: evidence from a developing country. *The 15th*

International Bata Conference for Ph.D. Students and Young Researchers.

Çera, Gentjan, Khan, K. A., Belas, J. & Ribeiro, H. N. R. (2020). The Role of Financial Capability and Culture in Financial Satisfaction. *Economic Papers: A Journal of Applied Economics and Policy*, *39*(4), 389–406. https://doi.org/10.1111/1759-3441.12299

Çera, Gentjan, Khan, K. A., Mlouk, A. & Brabenec, T. (2020). Improving financial capability: the mediating role of financial behaviour. *Economic Research-Ekonomska Istraživanja*, *39*(0), 1–18. https://doi.org/10.1080/1331677X.2020.1820362

Chowa, G., Ansong, D. & Despard, M. R. (2014). Financial capabilities: Multilevel modeling of the impact of internal and external capabilities of rural households. *Social Work Research*, *38*(1), 19–35. https://doi.org/10.1093/swr/svu002

Chuan, C. S., Kok, N. K. & Chen, O. B. (2012). Financial Satisfaction and Intergenerational Resource Transfers among Urban Older Malaysians. *American Journal of Scientific Research*, *43*(43), 32–45.

Collard, S., Mata, A. de la, Frade, C., Kempson, E., Leskinen, J., Lopes, C., Moore, N., Nicolini, G., Noël, D., Raijas, A. & Selosse, C. (2006). Consumer Financial Capability: Empowering European Consumers. *European Credit Research Institute, November 2005*, 1–107. http://ecri.eu/new/system/files/FinCap_Workshop_I_papers.pdf#page=44

Conger, Rand D.; Elder, Glen H., J. (1994). *Families in Troubled Times: Adapting to Change in Rural America. Social Institutions and Social Change.*

Creswell, J. W. & Creswell, J. D. (2018). *Research Design Qualitative, Quantitative, and Mixed Methods Approaches* (Fifth). SAGE Publications Inc.

Crotty, J. (2009). Structural causes of the global financial crisis: A critical assessment of the "new financial architecture." *Cambridge Journal of Economics*, *33*(4 SPEC. ISS.), 563–580. https://doi.org/10.1093/cje/bep023

CYFI. (2012). Children & Youth as Economic Citizens: Review of Research on Financial Capability, Financial Inclusion, and Financial Education. In *Child and Youth Finance International Research Working Group*.

Davis, K. & Runyan, R. C. (2016). Personality traits and financial satisfaction: Investigation of a hierarchical approach. *Journal of Financial Counseling and Planning*, *27*(1), 47–60. https://doi.org/10.1891/1052-3073.27.1.47

Dawadi, S., Shrestha, S. & Giri, R. A. (2021). Mixed-Methods Research: A Discussion on its Types, Challenges, and Criticisms. *Journal of Practical*

Studies in Education, *2*(2), 25–36. https://doi.org/10.46809/jpse.v2i2.20

DePaolo, C. A. & Wilkinson, K. (2014). Get Your Head into the Clouds: Using Word Clouds for Analyzing Qualitative Assessment Data. *TechTrends, 58*(3), 38–44. https://doi.org/10.1007/s11528-014-0750-9

Despard, M. R. & Chowa, G. A. N. (2014). Testing a Measurement Model of Financial Capability Among Youth in Ghana. *THE JOURNAL OF CONSUMER AFFAIRS*, *48*(2), 301–322. https://doi.org/10.1111/joca.12031

Easterlin, R. A. (2006). Life cycle happiness and its sources. Intersections of psychology, economics, and demography. *Journal of Economic Psychology*, *27*(4), 463–482. https://doi.org/10.1016/j.joep.2006.05.002

EC. (2017). The 2018 Ageing Report European economy Underlying Assumptions & Projection Methodologies. In *European Commission* (Vol. 55, Issue 9). https://doi.org/10.2765/40638

Enosh, G., Tzafrir, S. S. & Stolovy, T. (2015). The Development of Client Violence Questionnaire (CVQ). *Journal of Mixed Methods Research*, *9*(3), 273–290. https://doi.org/10.1177/1558689814525263

Eurofound. (2015). *Families in the economic crisis: Changes in policy measures in the EU*. https://www.oif.ac.at/fileadmin/user_upload/p_oif/andere_Publikationen/economic_crisis_2016.pdf

Financial Conduct Authority. (2017). *Financial Lives Survey 2017 Questionnaire*. https://www.fca.org.uk/publication/research/financial-lives-survey-2017-technical-report.pdf

FINRA. (2012). *National Financial Capability Study Military Survey*. Financial Industry Regulatory Authority Investor Education Foundation.

Finra Investor Education Foundation. (2018). *2018 National Financial Capability Study: State-by-State Survey Instrument*.

Fornell, C. & Cha, J. (1994). Partial Least Squares. In *Advanced Methods of Marketing Research* (Vol. 1, Issue 1, p. 534). https://doi.org/10.1049/ep.1977.0282

French, D. & McKillop, D. (2016). Financial literacy and over-indebtedness in low-income households. *International Review of Financial Analysis*, *48*, 1–11. https://doi.org/10.1016/j.irfa.2016.08.004

Fungáčová, Z. & Weill, L. (2014). *Understanding financial inclusion in China Institute for Economies in Transition*.

Georgarakos, D. & Inderst, R. (2011). *Financial advice and Stock Market* *participation* (WORKING PAPER SERIES NO 1296).

GPFI. (2010). *G20 Principles for Innovative Financial Inclusion*. Global Partnership for Financial Inclusion.

Grable, J. E. (2000). Financial Risk Tolerance and Additional Factors that Affect Risk Taking in Everyday Money Matters. *Journal of Business and Psychology*, *14*(4), 625–630. https://doi.org/10.1023/A:1022994314982

Grady, M. (2019). Seizing the moment On the Road to Financial Inclusion. In *Center for Financial Inclusion ACCION* (Vol. 72, Issues 1–2).

Greenley, J. R., Greenberg, J. S. & Brown, R. (1997). Measuring Quality of Life: A New and Practical Survey Instrument. *Social Work*, *42*(3), 244–254. https://doi.org/10.1093/sw/42.3.244

Grimm, D. M., Heise, D. M., Holzhausen, D. A. & Romero, P. P. (2019). Allianz Global Wealth Report 2019. In *Allianz SE Economic Research*. https://doi.org/10.1038/297002a0

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). Thousand Oaks. In *Sage*.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E. & Tatham, R. L. (2010). *Multivariate Data Analysis* (7th ed.). Prentice Hall.

Hair, J. F., Hult, G. T. M., Ringle, C. M. & Sarstedt, M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling* (2nd ed.). Sage.

Hair, J. F., Risher, J. J., Sarstedt, M. & Ringle, C. M. (2019a). When to use and how to report the results of PLS-SEM. *European Business Review*, *31*(1), 2–24. https://doi.org/10.1108/EBR-11-2018-0203

Hair, J. F., Risher, J. J., Sarstedt, M. & Ringle, C. M. (2019b). When to use and how to report the results of PLS-SEM. *European Business Review*, *31*(1), 2–24. https://doi.org/10.1108/EBR-11-2018-0203

Hair Jr, J., Hult, G. T., Ringle, C. & Sarstedt, M. (2016). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). In *Sage*.

Samples and Populations Sex and Older Women Example The Scientific Literature, Pages.Stat.Wisc.Edu 11 (2011). http://pages.stat.wisc.edu/~st571-1/03-samples-4.pdf

Hasibuan, B. K., HR, W. A. & Lubis, Y. M. (2018). Financial Literacy and Financial Behavior as a Measure of Financial Satisfaction. *Advances in Economics, Business and Management Research*, *46*(2017), 503–507.

Henseler, J., Ringle, C. M. & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. *Advances in International Marketing*, *20*, 277–319. https://doi.org/10.1108/S1474-7979(2009)0000020014

Hira, T. K. & Mugenda, O. M. (1998). Predictors of financial satisfaction: Differences between retirees and non-retirees. *Journal of Financial Counseling and Planning*, *9*(2), 75–84.

Huang, J., Nam, Y. & Lee, E. J. (2015). Financial Capability and Economic Hardship Among Low-Income Older Asian Immigrants in a Supported Employment Program. *Journal of Family and Economic Issues*, *36*(2), 239–250. https://doi.org/10.1007/s10834-014-9398-z

Huang, J., Nam, Y. & Sherraden, M. S. (2013). Financial Knowledge and Child Development Account Policy: A Test of Financial Capability. *Journal of Consumer Affairs*, *47*(1), 1–26. https://doi.org/10.1111/joca.12000

Hulland, J. (1999). USE OF PARTIAL LEAST SQUARES (PLS) IN STRATEGIC MANAGEMENT RESEARCH : A REVIEW OF FOUR RECENT STUDIES. *Strategic Management Journal*, *204*(November 1996), 195–204.

Huston, S. J. (2010). Measuring Financial Literacy. *Journal of Consumer Affairs*, *44*(2), 296–316. https://doi.org/10.1111/j.1745-6606.2010.01170.x

Jeong, W.-Y. & Hanna, S. D. (2004). Risk Tolerance and Financial Satisfaction. *International Journal of Human Ecology*, *5*(1), 35–43.

Johnson, E. & Sherraden, M. S. (2007). From Financial Literacy to Financial Capability Among Youth. *The Journal of Sociology & Social Welfare*, *34*(3), 119–147.

Joo, S & Grable, J. (2004). An Exploratory Framework of the Determinants of Financial Satisfaction. *Journal of Family and Economic Issues*, *25*(1), 25–50.

Joo, So-hyun & Grable, J. E. (2004). An Exploratory Framework of the Determinants of Financial Satisfaction. *Journal of Family and Economic Issues*, *25*(1), 25–50.

Joseph F. Hair, J., M.Hult, G. T., M.Ringle, C. & Sarstedt, M. (2014). A Primer on Partial Least Squares Structural Equation Modeling. In *Sage* (First). https://linkinghub.elsevier.com/retrieve/pii/S0024630113000034

Kefela, G. (2011). Implications of financial literacy in developing countries. *African Journal of Business Management*, *5*(9), 3699–3705. https://doi.org/10.5897/AJBM09.297

Kempson, E., Perotti, V. & Scott, K. (2013). *Measuring financial capability: a* *new instrument and results from low- and middle-income countries* (Issue June). International Bank for Reconstruction and Development / The World Bank. www.worldbank.org%0A%5Cnwww.finlitedu.or

Khan, K. A., Çera, G. & Pinto Alves, S. R. (2022). FINANCIAL CAPABILITY AS A FUNCTION OF FINANCIAL LITERACY, FINANCIAL ADVICE, AND FINANCIAL SATISFACTION. *E+M Ekonomie a Management*, *25*(1), 143–160. https://doi.org/10.15240/tul/001/2022-1-009

Kim, K. T., Pak, T.-Y., Shin, S. H. & Hanna, S. D. (2018). The relationship between financial planner use and holding a retirement saving goal: A propensity score matching analysis. *Financial Planning Review, 2*, 01–20.

Klapper, L., Lusardi, A. & van Oudheusden, P. (2017). Insights From the Standard & Poor'S Ratings Services Global Financial Literacy Survey. In *Financial literacy around the world*. http://www.openfininc.org/wp-content/uploads/2016/04/2015-Finlit_paper_17_F3_SINGLES.pdf

Le Blanc, D. (2015). Towards Integration at Last? The Sustainable Development Goals as a Network of Targets. *Sustainable Development*, *23*(3), 176–187. https://doi.org/10.1002/sd.1582

Lee, Y. G. & Dustin, L. (2021). Explaining Financial Satisfaction in Marriage: The Role of Financial Stress, Financial Knowledge, and Financial Behavior. *Marriage and Family Review*, *57*(5), 397–421. https://doi.org/10.1080/01494929.2020.1865229

Lluberas, R. & Shorrocks, A. (2019). Wealth outlook. In *Global wealth report 2019, by Suisse Group, Credit AG* (Issue October).

Loewe, N., Bagherzadeh, M., Araya-Castillo, L., Thieme, C. & Batista-Foguet, J. M. (2014). Life domain satisfactions as predictors of overall life satisfaction among workers: Evidence from Chile. *Social Indicators Research*, *118*(1), 71–86. https://doi.org/10.1007/s11205-013-0408-6

Loke, V., Choi, L. & Libby, M. (2015). Increasing youth financial capability: An evaluation of the mypath savings initiative. *Journal of Consumer Affairs*, *49*(1), 97–126. https://doi.org/10.1111/joca.12066

Lowry P B & J, G. (2014). Partial Least Squares (PLS) Structural Equation Modeling (SEM) for Building and Testing Behavioral Causal Theory: When to Choose It and How to Use It. *IEEE Transactions on Professional Communication*, *57*(2), 123–146.

Lusardi, A. (2011). *American's Financial Capability* (No. w17103; NBER WORKING PAPER SERIES AMERICANS'). National Bureau of Economic Research

Lusardi, A. & Mitchell, O. S. (2007). Financial Literacy and Retirement Prepared-ness: Evidence and Implications for Financial Education THE PROBLEMS ARE SERIOUS, AND REMEDIES ARE NOT SIMPLE. *Business Economics*, *42*, *January*, 35–44. https://link.springer.com/content/pdf/10.2145%2F20070104.pdf

Lusardi, A. & Mitchell, O. S. (2011). Financial Literacy and Planning: Implications for Retirement Well-being. In *Financial Literacy: Implications for Retirement Security and the Financial Marketplace* (pp. 16–39). Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199696819.003.0002

Lusardi, A. & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, *52*(1), 5–44. https://doi.org/10.1257/jel.52.1.5

Lusardi, A. & Tufano, P. (2015). Debt literacy, financial experiences, and overindebtedness. *Journal of Pension Economics and Finance*, *14*(4), 332–368. https://doi.org/10.1017/S1474747215000232

Luukkanen, L. & Uusitalo, O. (2019). Toward Financial Capability—Empowering the Young. *Journal of Consumer Affairs*, *53*(2), 263–295. https://doi.org/10.1111/joca.12186

Maxwell, J. A. (2016). Expanding the History and Range of Mixed Methods Research. *Journal of Mixed Methods Research*, *10*(1), 12–27. https://doi.org/10.1177/1558689815571132

McDaid, D., Quaglio, G., Correia De Campos, A., Dario, C., Van Woensel, L., Karapiperis, T. & Reeves, A. (2013). Health protection in times of economic crisis: Challenges and opportunities for Europe. *Journal of Public Health Policy*, *34*(4), 489–501. https://doi.org/10.1057/jphp.2013.35

Meltzer, H., Bebbington, P., Brugha, T., Jenkins, R., McManus, S. & Dennis, M. S. (2011). Personal debt and suicidal ideation. *Psychological Medicine*, *41*(4), 771–778. https://doi.org/10.1017/S0033291710001261

Moreland, K. A. (2018). Seeking Financial Advice and Other Desirable Financial Behaviors. *Journal of Financial Counseling and Planning*, *29*(2), 198–206.

Mudzingiri, C., Mwamba, M., W., J. K. & Nicolaas, J. (2018). Financial behavior, confidence, risk preferences and financial literacy of university students. *Cogent Economics and Finance*, *6*(1), 1–25. https://doi.org/10.1080/23322039.2018.1512366

Mundy, S. (2011). *Financial capability : Why is it important and how can it be improved ? Perspective report Welcome to CfBT Education Trust CfBT and Financial Capability in Africa*. www.cfbt-africa.com

NCRB. (2018). *Chapter – 2 Suicides in India* (Issue 169).

NFCS. (2012). *2012 National Financial Capability Study State-by-State Survey Instrument*.

Nussbaum. (2011). *Creating Capabilities: The Human Development Approach*. Harvard University Press.

Nussbaum, M. & Sen, A. (1993). The Quality of Life. In *Oxford University Press, USA*. Oxford University Press, USA. https://www.degruyter.com/view/books/9783110884968/9783110884968/9783110884968.xml

OECD. (2011). Measuring financial literacy: questionnaire and guidance notes for conducting an internationally comparable survey of financial literacy. In *Oecd*. https://www.oecd.org/finance/financial-education/49319977.pdf

OECD. (2013). Financial Literacy and Inclusion. In *Financial Literacy & Education* (Issue June). https://doi.org/10.1787/9789264254855-en

OECD. (2018). *OECD/INFE TOOLKIT FOR MEASURING FINANCIAL LITERACY AND FINANCIAL INCLUSION* (Issue March).

Pedro, C. (2019). *Human Development Report 2019 Beyond income , beyond averages , beyond today : Inequalities in human development in the 21st century*. http://hdr.undp.org/sites/default/files/hdr2019.pdf

Potocki, T. & Cierpiał-Wolan, M. (2019). Factors shaping the financial capability of low-income consumers from rural regions of Poland. *International Journal of Consumer Studies*, *43*(2), 187–198. https://doi.org/10.1111/ijcs.12498

Potrich, A. C. G., Vieira, K. M. & Kirch, G. (2015). Determinants of Financial Literacy: Analysis of the Influence of Socioeconomic and Demographic Variables. *Revista Contabilidade & Finanças*, *26*(69), 362–377. https://doi.org/10.1590/1808-057x201501040

Potrich, A. C. G., Vieira, K. M. & Mendes-Da-Silva, W. (2016). Development of a financial literacy model for university students. *Management Research Review*, *39*(3), 356–376. https://doi.org/10.1108/MRR-06-2014-0143

Praag, V. & MS., B. (2004). *The connexion between old and new approaches to financial satisfaction* (CESIFO WORKING PAPER NO. 1212). http://hdl.handle.net/10419/18851%0AStandard-Nutzungsbedingungen:

Rai, K., Dua, S. & Yadav, M. (2019). Association of Financial Attitude, Financial Behaviour and Financial Knowledge Towards Financial Literacy: A Structural Equation Modeling Approach. *FIIB Business Review*, *8*(1), 51–60. https://doi.org/10.1177/2319714519826651

Ranta, M., Punamäki, R. L., Chow, A. & Salmela-Aro, K. (2019). The Economic Stress Model in Emerging Adulthood: The Role of Social Relationships and Financial Capability. *Emerging Adulthood*, *9*. https://doi.org/10.1177/2167696819893574

Ranta, M. & Salmela-Aro, K. (2018). Subjective financial situation and financial capability of young adults in Finland. *International Journal of Behavioral Development*, *42*(6), 525–534. https://doi.org/10.1177/0165025417745382

Reyers, M. (2019). Financial capability and emergency savings among South Africans living above and below the poverty line. In *International Journal of Consumer Studies* (Vol. 43, Issue 4). https://doi.org/10.1111/ijcs.12520

Robb, C. A. & Woodyard, A. S. (2011). Financial Knowledge and Best Practice Behavior. *Journal of Financial Counseling and Planning*, *22*(1), 60–70.

Rojas, M. (2006). Life satisfaction and satisfaction in domains of life: Is it a simple relationship? *Journal of Happiness Studies*, *7*(4), 467–497. https://doi.org/10.1007/s10902-006-9009-2

Rooij, M. C. J. Van, Lusardi, A. & Alessie, R. J. M. (2011). Financial literacy and retirement planning in the Netherlands. *Journal of Economic Psychology*, *32*(4), 593–608. https://doi.org/10.1016/j.joep.2011.02.004

Roszkowski, M. & Davey, G. (2010). Risk perception and risk tolerance changes attributable to the 2008 economic crisis: A subtle but critical difference. *Journal of Financial Service Professionals*, *64*(4), 42–53.

Rothwell, D. W., Khan, M. N. & Cherney, K. (2016). Building Financial Knowledge Is Not Enough : Financial Self-Efficacy as a Mediator in the Financial Capability of Low-Income Families. *Journal of Community Practice*, *24*(4), 368–388. https://doi.org/10.1080/10705422.2016.1233162

Saunders, M., Lewis, P. & Thornhill, A. (2009). *Research Methods for Business Students*.

Sen, A. (1993a). Capability and Well-Being. In M. Nussbaum & A. Sen (Eds.), *The Quality of Life* (pp. 30–53). Oxford University Press.

Sen, A. (1993b). Does Business Ethics Make Economic Sense? *Business Ethics Quarterly*, *3*(1), 53–66. https://doi.org/10.1007/978-94-015-8165-3_6

Sen, A. (2000). *Development as Freedom*. Random House Inc.

Serido, J., Shim, S. & Tang, C. (2013). A developmental model of financial capability: A framework for promoting a successful transition to adulthood. *International Journal of Behavioral Development*, *37*(4), 287–297. https://doi.org/10.1177/0165025413479476

Sherraden. (2013a). *Building Blocks of Financial Capability", in Birkenmaier, J., Sherraden, M. and Curley, J. (Eds.), Financial Capability and Asset Development*. Oxford University Press.

Sherraden & Ansong, D. (2016). Financial Literacy to Financial Capability: Building Financial Stability and Security. In C. Aprea, E. Wuttke, K. Breuer, N. K. Koh, P. Davies, B. Greimel-Fuhrmann & J. S. Lopus (Eds.), *International Handbook of Financial Literacy* (pp. 83–96). Springer Singapore. https://doi.org/10.1007/978-981-10-0360-8

Sherraden, Huang, J., Jacobson Frey, J., Birkenmaier, J., Callahan, C., Clancy, M. M. & Sherraden, M. (2015a). *Financial Capability and Asset Building for All*. http://grandchallengesforsocialwork.org/wp-content/uploads/2016/01/WP13-with-cover.pdf

Sherraden, M. S. (2013b). Building blocks of financial capability. In J. Birkenmaier, M. Sherraden & J. Curley (Eds.), *Financial Capability and Asset Building: Research, Education, Policy, and Practice* (pp. 3–43). Oxford University Press.

Sherraden, M. S., Huang, J., Jacobson Frey, J., Birkenmaier, J., Callahan, C., Clancy, M. M. & Sherraden, M. (2015b). *Financial Capability and Asset Building for All*. 31.

Shih, T. Y. & Ke, S. C. (2014). Determinates of financial behavior: Insights into consumer money attitudes and financial literacy. *Service Business*, *8*(2), 217–238. https://doi.org/10.1007/s11628-013-0194-x

Shim, J., Lee, R. H. & Kim, J. (2017). Hard Times and Harder Minds: Material Hardship and Marital Well-Being Among Low-Income Families in South Korea. *Journal of Family Issues*, *38*(18), 2545–2566. https://doi.org/10.1177/0192513X16653432

Shim, S., Serido, J., Bosch, L. & Tang, C. (2013). Financial identity-processing styles among young adults: A longitudinal study of socialization factors and consequences for financial capabilities. *Journal of Consumer Affairs*, *47*(1), 128–152. https://doi.org/10.1111/joca.12002

Shoshanna Sofaer. (1999). Qualitative Methods: What Are They and Why Use Them? *HSR Health Services Research*, *34*(5), 18. https://doi.org/10.1557/proc-756-ee5.9

Stolper, O. & Walter, A. (2017). Financial literacy, financial advice, and financial behavior. *Journal of Business Economics*, *87*(5), 581–643. https://doi.org/10.1007/s11573-017-0853-9

Storchi, S. & Johnson, S. (2016). *Financial capability for wellbeing: An alternative perspective from the capability approach* (No. 44).

http://hdl.handle.net/10419/179371

Sun, S., Chen, Y. C., Ansong, D., Huang, J. & Sherraden, M. S. (2022). Household Financial Capability and Economic Hardship: An Empirical Examination of the Financial Capability Framework. *Journal of Family and Economic Issues*. https://doi.org/10.1007/s10834-022-09816-5

Taylor, M. (2011). Measuring Financial Capability and its Determinants Using Survey Data. *Social Indicators Research*, *102*(2), 297–314. https://doi.org/10.1007/s11205-010-9681-9

Teddlie, C. & Tashakkori, A. (2009). Foundations of Mixed Methods Research Integrating Quantitative and Qualitative Approaches in the Social and Behavioral Sciences Charles. In *News.Ge*.

The World Bank. (2017). *2017 Global Findex Questionnaire*. 1–17. www.worldbank.org/globalfindex

UN. (2016). TRANSFORMING OUR WORLD:THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT. In *Arsenic Research and Global Sustainability - Proceedings of the 6th International Congress on Arsenic in the Environment, AS 2016*. https://doi.org/10.1201/b20466-7

Vera-Toscano, E., Ateca-Amestoy, V. & Serrano-del-Rosal, R. (2006). Building financial satisfaction. *Social Indicators Research*, *77*(2), 211–243. https://doi.org/10.1007/s11205-005-2614-3

Verdugo-Castro, S., Sánchez-Gómez, M. C., García-Holgado, A. & Costa, A. P. (2019). Mixed methods and visual representation of data with CAQDAS: Empirical study. *ACM International Conference Proceeding Series*, 511–517. https://doi.org/10.1145/3362789.3362847

Vlaev, I. & Elliott, A. (2017a). Defining and influencing financial capability. In R. Ranyard (Ed.), *Economic Psychology* (pp. 187–205). John Wiley and Sons Inc. https://doi.org/10.1002/9781118926352.ch12

Vlaev, I. & Elliott, A. (2017b). Defining and Influencing Financial Capability. In R. Ranyard (Ed.), *Economic Psychology* (pp. 187–205). John Wiley & Sons. https://doi.org/10.1002/9781118926352.ch12

Von Gaudecker, H. M. (2015). How Does Household Portfolio Diversification Vary with Financial Literacy and Financial Advice? *Journal of Finance*, *70*(2), 489–507. https://doi.org/10.1111/jofi.12231

Von Stumm, S., Fenton O'Creevy, M. & Furnham, A. (2013). Financial capability, money attitudes and socioeconomic status: Risks for experiencing adverse financial events. *Personality and Individual Differences*, *54*(3), 344–349. https://doi.org/10.1016/j.paid.2012.09.019

WB. (2009). The global financial crisis and its impact on renewable energy finance. In *Global Monitoring Report* (Issue April). https://doi.org/10.1071/AH09830

WB. (2018). India Systematic Country Diagnostic. In *India Systematic Country Diagnostic*. https://doi.org/10.1596/29879

WESO. (2019). *World Employment Social Outlook*.

Williams, D. T., Cheadle, J. E. & Goosby, B. J. (2015). Hard Times and Heart Break: Linking Economic Hardship and Relationship Distress. *Journal of Family Issues*, *36*(7), 924–950. https://doi.org/10.1177/0192513X13501666

Woodyard, A. & Robb, C. (2012). Financial Knowledge and the Gender Gap. *Journal of Financial Therapy*, *3*(1), 1–16. https://doi.org/10.4148/jft.v3i1.1453

Woodyard, A. S. & Robb, C. A. (2016). Consideration of Financial Satisfaction: What Consumers Know, Feel and Do from a Financial Perspective. *Journal of Financial Therapy*, *7*(2). https://doi.org/10.4148/1944-9771.1102

World Bank. (2013). Why Financial Capability is important and how surveys can help. In *Financial Capability Survey Around the World* (Issue August). http://responsiblefinance.worldbank.org/~/media/GIAWB/FL/Documents/Publications/Why-financial-capability-is-important.pdf

World Bank. (2016). *Uttar Pradesh: poverty, growth & inequality*. http://documents.worldbank.org/curated/en/187721467995647501/Uttar-pradesh-Poverty-growth-and-inequality

World Bank. (2019). *Gross domestic product 2018 Gross domestic product 2018* (Issue July). https://databank.worldbank.org/data/download/gdp.pdf

Xiao, J. J. (2016). Handbook of Consumer Finance Research. In *Handbook of Consumer Finance Research* (Issue May). https://doi.org/10.1007/978-3-319-28887-1

Xiao, J. J., Chen, C. & Chen, F. (2014). Consumer Financial Capability and Financial Satisfaction. *Social Indicators Research*, *118*(1), 415–432. https://doi.org/10.1007/s11205-013-0414-8

Xiao, J. J. & O'Neill, B. (2016). Consumer financial education and financial capability. *International Journal of Consumer Studies*, *40*(6), 712–721. https://doi.org/10.1111/ijcs.12285

Xiao, J. J. & O'Neill, B. (2018). Propensity to plan, financial capability, and financial satisfaction. *International Journal of Consumer Studies*, *42*(5), 501–512. https://doi.org/10.1111/ijcs.12461

Xiao, J. J. & Porto, N. (2017). Financial education and financial satisfaction: Financial literacy, behavior, and capability as mediators. *International Journal of Bank Marketing*, *35*(5), 805–817. https://doi.org/10.1108/IJBM-01-2016-0009

Zainul, A. A. (2018). Influence of financial attitude, financial behavior, financial capability on financial satisfaction. *Advances in Social Science, Education and Humanities Research*, *186*(INSYMA), 100–103. https://doi.org/10.2991/insyma-18.2018.25

Zimmerman, S. L. (1995). Understanding family policy Theories & Applications. In *Sage Publications*. https://doi.org/10.1017/CBO9781107415324.004

Zins, A. & Weill, L. (2016). The determinants of financial inclusion in Africa. *Journal of Advanced Research*, *6*(1), 46–57. https://doi.org/10.1016/j.rdf.2016.05.001

LIST OF PUBLICATIONS BY THE AUTHOR

https://orcid.org/0000-0001-5728-8955

Journal publications:

JULY 2022 AMOAH, J., BELAS, J., DZIWORNU, R., & **KHAN, K. A.** (2022). ENHANCING SME CONTRIBUTION TO ECONOMIC DEVELOPMENT: A PERSPECTIVE FROM AN EMERGING ECONOMY. JOURNAL OF INTERNATIONAL STUDIES, 15(2), 63–76. HTTPS://DOI.ORG/10.14254/2071-8330.2022/15-2/5 **(SCOPUS)**

JUNE 2022 ÇERA, G., **KHAN, K. A.,** BLÁHOVÁ, A., & BELAS, JR., J. (2022). DO OWNER-MANAGER DEMOGRAPHICS IN SMES MATTER FOR CORPORATE SOCIAL RESPONSIBILITY? EQUILIBRIUM, 17(2), 511–531. HTTPS://DOI.ORG/10.24136/EQ.2022.018 **(SCOPUS)**

JUNE 2022 ÇERA, G., **KHAN, K. A.,** LASHI, F., & MALOKU, S. (2022). THE ROLE OF GENERATIONAL COHORTS IN MOBILE BANKING ADOPTION: EVIDENCE FROM SOUTH-EASTERN EUROPE. INTERNATIONAL JOURNAL OF SERVICES TECHNOLOGY AND MANAGEMENT, 28(1-2), PP 24–45. HTTPS://DOI.ORG/10.1504/IJSTM.2022.123503 **(SCOPUS)**

MARCH 2022 **KHAN, K. A.,** ÇERA, G., & PINTO ALVES, S. R. (2022). FINANCIAL CAPABILITY AS A FUNCTION OF FINANCIAL LITERACY, FINANCIAL ADVICE, AND FINANCIAL SATISFACTION. E+M EKONOMIE A MANAGEMENT, 25(1), 143–160. HTTPS://DOI.ORG/10.15240/TUL/001/2022-1-009 **(SCOPUS AND WOS)**

FEB 2022 AKHTAR, M. A., **KHAN, K. A.,** & HOANG, H. C. (2022). ROLE OF SOCIAL NETWORKING SITES IN FINANCIAL PRODUCT CHOICE: AN INVESTIGATION THROUGH THE THEORY OF PLANNED BEHAVIOR. BUSINESS PERSPECTIVES AND RESEARCH, 1–19. HTTPS://DOI.ORG/10.1177/22785337211070342 **(SCOPUS)**

DEC 2021 METZKER, Z., MAROUŠEK, J., HLAWICZKA, R., BELÁS JR., J., & **KHAN, K. A. (**2021). THE PERCEPTION OF THE MARKET AND OPERATIONAL AREA OF BUSINESS BY SERVICE SECTOR AND TOURISM COMPANIES IN TERMS OF CSR IMPLEMENTATION. JOURNAL OF TOURISM AND SERVICES, 12(23), 217–236. HTTPS://DOI.ORG/10.29036/JOTS.V12I23.328 **(SCOPUS)**

DEC 2021 ÇERA, G., **KHAN, K. A**., ROWLAND, Z., & RIBEIRO, H. N. R. (2021). FINANCIAL ADVICE, LITERACY, INCLUSION AND RISK TOLERANCE: THE MODERATING EFFECT OF UNCERTAINTY AVOIDANCE. E A M: EKONOMIE A MANAGEMENT, 24(4), 105–123. HTTPS://DOI.ORG/10.15240/TUL/001/2021-4-007 **(SCOPUS)**

SEPT 2021 **KHAN, K. A.,** & AKHTAR, M. A. (2021). DIGITAL ENGAGEMENT AS A PREDICTOR OF FINANCIAL CAPABILITY, FINANCIAL ADVICE, AND FINANCIAL SATISFACTION. STUDIES IN BUSINESS AND ECONOMICS, 16(2), 127–141. HTTPS://DOI.ORG/10.2478/SBE-2021-0029 **(SCOPUS)**

MAY 2021 ROZSA, Z., BELAS, J., **KHAN, K. A**., & ZVARIKOVA, K. (2021). CORPORATE SOCIAL RESPONSIBILITY AND ESSENTIAL FACTORS OF PERSONNEL RISK MANAGEMENT IN SMES. *POLISH JOURNAL OF MANAGEMENT STUDIES*, *23*(2), 449–463. DOI:10.17512/PJMS.2021.23.2.27 **(SCOPUS-Q3)**

MAY 2021 ÇERA, G, **KHAN, K A**, SOLENIČKI, M (2021). LINKING INDIVIDUAL DEMOGRAPHICS TO ANTECEDENTS OF MOBILE BANKING USAGE: EVIDENCE FROM DEVELOPING COUNTRIES IN SOUTHEAST EUROPE. *GLOBAL BUSINESS REVIEW* [ONLINE]. 2021 [CIT. 2021-07-29]. ISSN 0972-1509. DOSTUPNÉ Z: HTTPS://JOURNALS.SAGEPUB.COM/DOI/10.1177/09721509211008686. **(SCOPUS)**

MARCH 2021 AMOAH, J., BELÁS, J., **KHAN, K. A**., METZKER, Z. (2021), "ANTECEDENTS OF SUSTAINABLE SMES IN THE SOCIAL MEDIA SPACE: A PARTIAL LEAST SQUARE-STRUCTURAL EQUATION MODELING (PLS-SEM) APPROACH", MANAGEMENT & MARKETING. CHALLENGES FOR THE KNOWLEDGE SOCIETY, VOL. 16, NO. 1, PP. 26-46, DOI: 10.2478/MMCKS-2021-0003 **(SCOPUS)**

DECEMBER 2020 **KHAN, K. A**., AKHTAR, M. A., & TRIPATHI, P. K. (2020). PERCEIVED USEFULNESS OF SOCIAL MEDIA IN FINANCIAL DECISION-MAKING: DIFFERENCES AND SIMILARITIES. INNOVATIVE MARKETING, 16(4), 145–154. DOI:10.21511/IM.16(4).2020.13 **(SCOPUS)**

NOVEMBER 2020 ÇERA, G., PAGRIA, I., **KHAN, K.A**. & MUAREMI, L. (2020). MOBILE BANKING USAGE AND GAMIFICATION: THE MODERATING EFFECT OF GENERATIONAL COHORTS. *JOURNAL OF SYSTEMS AND INFORMATION TECHNOLOGY*, VOL. 12 ISSUE 3 HTTPS://DOI.ORG/10.1108/JSIT-01-2020-0005 **(SCOPUS)**

SEPTEMBER 2020 **KHAN, K. A.,** AND AKHTAR, M. A. (2020). ELECTRONIC PAYMENT SYSTEM USE: A MEDIATOR AND A PREDICTOR OF FINANCIAL SATISFACTION. INVESTMENT MANAGEMENT AND FINANCIAL INNOVATIONS, 17(3), 246-262.DOI:10.21511/IMFI.17(3).2020.19 **(SCOPUS)**

SEPTEMBER 2020 ÇERA, G., **KHAN, K. A.,** BELAS, J., & RIBEIRO, H. N. R. (2020). THE ROLE OF FINANCIAL CAPABILITY AND CULTURE IN FINANCIAL satisfaction. Economic Papers, Australia Wiley. DOI:10.1111/1759-3441.12299 **(Scopus)**

September 2020 Çera, G., **Khan, K. A.,** Mlouk, A., & Brabenec, T. (2020). Improving financial capability: the mediating role of financial behavior. Economic Research-Ekonomska Istraživanja, Routledge Taylor and Francis 39(0), 1–18. DOI:10.1080/1331677X.2020.1820362 **(Scopus)**

July 2020 Belás, J., **Khan, K. A.**, Maroušek, J., & Rozsa, Z. (2020). Perceptions of the importance of business ethics in SMEs: A comparative study of Czech and Slovak entrepreneurs. Ethics & Bioethics, 10(1–2), 96–106. https://doi.org/10.2478/ebce-2020-0010 **(Scopus)**

July 2020 Kumar Dey, S., **Khan, K. A**., Tučkova, Z., & Bashiru Jibril, A. (2020). Motivation among travel agents in India: The moderating role of employee's expertise and marital status. Problems and Perspectives in Management Business perspective, 18(2), 453–465. https://doi.org/10.21511/ppm.18(2).2020.37 **(Scopus)**

July 2020 **Khan, K. A**., Akhtar, M. A., Dey, S. K., & Ibrahim, R. (2020). Financial Anxiety, Financial advice, and E-payment use: Relationship and perceived differences between males & females of Generation Z. Journal of Critical Reviews, 7(18), 1812–1820. https://doi.org/10.31838/jcr.07.18.228

June 2020 Kotaskova, A., Belas, J., Bilan, Y., & **Khan, K. A**. (2020). Significant Aspects of Managing Personnel Risk in the SME Sector. Management & Marketing. Challenges for the Knowledge Society, 15(2), 203–218. https://doi.org/10.2478/mmcks-2020-0013 **(Scopus)**

June 2020 Dvorský, J., Petráková, Z., **Khan, K. A**., Formánek, I., & Mikoláš, Z. (2020). Selected aspects of strategic management in the service sector. Journal of Tourism and Services, 11(20), 109–123. https://doi.org/10.29036/jots.v11i20.146 **(Scopus)**

June 2020 **Khan, K. A**., Dankiewicz, R., Kliuchnikava, Y., & Oláh, J. (2020). How Do Entrepreneurs Feel Bankruptcy? International Journal of Entrepreneurial Knowledge, 8(1), 89–101. https://doi.org/10.37335/ijek.v8i1.103 **(ERIH+)**

November 2019 **Khan, K. A**., Çera, G., & Netek, V. (2019). Perception of the Selected Business Environment Aspects by Service Firms.

JOURNAL OF TOURISM AND SERVICES, 10(19), 111–127. HTTPS://DOI.ORG/10.29036/JOTS.V10I19.115 **(SCOPUS)**

Papers published in Conference Proceedings

JUNE 2021 AMOAH, J., METZKER, Z., **KHAN, K. A**., & JIBRIL, A. B. (2021). DO MANAGEMENT PRACTICES MATTER IN SUSTAINABLE SMES? A CONCEPTUAL STUDY FROM A DEVELOPING COUNTRY PERSPECTIVE. *EUROPEAN CONFERENCE ON RESEARCH METHODOLOGY FOR BUSINESS AND MANAGEMENT STUDIES;* 08. HTTPS://DOI.ORG/10.34190/ERM.21.002

DECEMBER 2020 **KHAN, K. A.,** BELAS, J., & AKHTAR, M. A. (2020). PREDICTORS OF FINANCIAL ADVICE: AN EVIDENCE FROM A DEVELOPING NATION. IN PROCEEDINGS OF THE 3RD INTERNATIONAL CONFERENCE ON ECONOMICS AND SOCIAL SCIENCES (2020) (PP. 430–444). DOI:10.2478/9788366675162-045

NOVEMBER 2019 ÇERA, G., POLESHI, B., **KHAN, K. A**., SHUMELI, A., & KOJKU, O. (2019). DETERMINANTS OF FINANCIAL CAPABILITY: EVIDENCE FROM A DEVELOPING COUNTRY. 15TH ANNUAL INTERNATIONAL BATA CONFERENCE FOR PH.D. STUDENTS AND YOUNG RESEARCHERS, 181, DOI: 10.7441/DOKBAT.2019.018

Research projects

2019-2020 INTERNAL GRANT AGENCY OF FACULTY OF MANAGEMENT AND ECONOMICS, FUNDED BY TOMAS BATA UNIVERSITY, PROJECT NO. IGA/FAME/2019/002: THE ROLE OF INSTITUTIONAL ENVIRONMENT IN FOSTERING ENTREPRENEURSHIP

2021-2022 INTERNAL GRANT AGENCY, FACULTY OF MANAGEMENT AND ECONOMICS, FUNDED BY TOMAS BATA UNIVERSITY IN ZLIN THROUGH; IGA/FAME/2021/005 SIGNIFICANT FACTORS IN THE SUSTAINABILITY OF ECONOMIC GROWTH WITH A FOCUS ON THE SME SEGMENT

Articles accepted and under production

ANAM AKHTAR, **KHURRAM AJAZ KHAN**, JOHN AMOAH "IMPACT OF COVID-19 ON ENTREPRENEURIAL INTENTIONS OF MANAGEMENT GRADUATES: A COMPARATIVE STUDY AMONGST BUSINESS STUDENTS IN INDIA AND UAE" INTERNATIONAL JOURNAL OF BUSINESS EXCELLENCE **(SCOPUS)**

KHURRAM AJAZ KHAN, ANAM AKHTAR, PANKAJ KUMAR TRIPATHI, JOHN AMOAH "COVID-19, HOW DOES IT AFFECT INDIVIDUALS' PERCEIVED FINANCIAL BEHAVIOUR AND PERCEIVED FINANCIAL KNOWLEDGE: AN INTROSPECTIVE ANALYSIS" JOURNAL OF BUSINESS EXCELLENCE **(SCOPUS)**

MOHAMMAD ANAM AKHTAR, **KHURRAM AJAZ KHAN** & TRIPATHY, "THE IMPACT OF IFRS CONVERGENCE ON KEY FINANCIAL INDICATORS OF PUBLIC SECTOR UNDERTAKINGS LISTED IN NSE (INDIA)," (ACCEPTED FOR PUBLICATION IN INTERNATIONAL JOURNAL OF BEHAVIORAL ACCOUNTING AND FINANCE)

Papers Under review

GENTJAN ÇERA, JAROSLAV BELAS; **KHURRAM AJAZ KHAN**, "INTENTION TO USE MOBILE BANKING EXPLAINED THROUGH DIFFUSION OF INNOVATION, TECHNOLOGY ADOPTION AND GAMIFICATION".

KHURRAM AJAZ KHAN, JAROSLAV BELAS, JOHN AMOAH, ZDENKO METZKER "IMPACT OF NEGATIVE EMOTIONS ON FINANCIAL BEHAVIOR: AN ASSESSMENT THROUGH GENERAL STRAIN THEORY"

GENTJAN ÇERA, **KHURRAM AJAZ KHAN,** JUDIT OLAH, ZDENKO METZKER, "BUSINESS RECOVERY AND INSTITUTIONAL CONSTRAINTS: EVIDENCE FROM VISEGRAD COUNTRIES AND SERBIA"

MOHAMMAD ANAM AKHTAR, ADEL SAREA, **KHURRAM AJAZ KHAN** AND SINGH, " THE MODERATING ROLE OF GAMIFICATION TOWARDS INTENTIONS TO USE MOBILE PAYMENTS APPLICATIONS IN BAHRAIN-AN INTEGRATED APPROACH" PSU RESEARCH

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Career Objective

To be an effective and successful Academician in the field of Business Management

Current Profile Sept 2018

Currently pursuing Ph.D. in Finance at the Faculty of Management and Economics Tomas
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Project Activities at FAME UTB Feb 2019 till date-As a member:

The Internal Grant Agency of Faculty of Management and Economics, Tomas Bata University supported this paper, no.
IGA/FAME/2019/002: The role of institutional environment in fostering entrepreneurship.
IGA/FaME/2021/005. Significant factors in the sustainability of economic growth with a focus
on the SME segment.

Professional Experience: June 2007-Sept 2018

1st December 2021 till date	Research analyst -market research in financial technologies Token Ventures, Prague, Czech Republic
2018- 2022	PhD in Finance at Tomas Bata University Czech Republic, Thesis submitted final defence expected in December 2022.
Senior lecturer:	ISBAT University, Uganda Africa Financial management, Financial services and Financial Markets May 2012 to Sept 2018.
Assistant Professor (Grade I):	JETGI Lucknow India Financial Management, Working capital Management, and Capital and Money markets
Branch operation Executive:	Axis Bank Ltd India, Retail Banking-Branch Operations Executive

Nov 2008 to February 2010

Key Account Manager: Kotak Securities ltd India, Capital market operations, trading and advisory Nov 2007 to Oct 2008

Academic Qualification: Master of Business Administration in Finance 2007
Bachelor of Commerce 2005

Technical certifications and Courses

2020 Statistics for Researchers: Understanding Mediation, Moderation and Beyond, University of Virginia Darden School of Business

2015-2016 Advance Diploma in Oil and Gas Management, Indian Institute of Business Management and Studies

2008 Certificate on Banking Axis bank ltd

2007 NCFM certification in depository operations Module, National Stock Exchange

2005 TA 101 certificate from the International transactional Analyst Association

Other Skills and Trained on

2021 Scrum Foundation Professional certificate

2020 Smart-PLS statistical software

2019 IBM SPSS

2011-2017 Personal counselling and presentation, event planning and On Interpersonal skills

2009 Counterfeit note detection and Anti-money laundering (organized by Axis bank and RBI)

2008 Trade Finance at New Delhi (organized by Axis bank ltd).

2008 CRM and Stress Management (organize by Axis bank ltd and frank Finn institute).

Community services and certifications

2000-2003 NCC "C" Certificate three years in Army wing

2002 Certificate on civil defense

2011-2017 Conducted seminars and presentations for higher education Free of cost in Uganda.

ANNEXURE

Questionnaire

Section	Code	Question		Options
Personal Profile	P1	Please choose your gender.	[1] female [2] male	
	P2	Please choose your occupation area.	[1] Agriculture Labour [2] Non-agriculture Labour [3] Self-employed in Agriculture [4[Self-employed in non-Agriculture [5] Street Vendors/Hawkers [6] Salaried in private/govt [7] Professionals [8] Unemployed [9] Any other	
	P3	Please choose your monthly income	[1] Under 1000 [2] 1000 – 3000 [3] 3000 – 5000 [4] 5000 –7000 [5] 7000 –9000 [6] 9000- 11000	
	P4	Please mention your age?	[1] 18-28 [2] 28-38 [3] 38-48 [4] 48-58 [5] 58-68	
	P5	State your education level?	[1] No education [2] Primary [3] Secondary school [4] Bachelor [5] Master [6] PhD	
	P6	What is your field of study?	[1] Science [2] Business [3] Social Science [4] Humanities [5] Any other	
	P7	What is your marital status?	[1] Single [2] Married [3] Divorced [4] Other	
	P8	Please state where do you live?	[1] Urban [2] Rural	
	P9	Do you have any medical expense burden on you?	[1] Yes [2] No	

	P11	How many no. of dependents you have? (financially dependents only)	[1] None [2] One [3] Two [4] Three [5] Four [6] Above four	
		To what extent do you agree or disagree with the following statements?		
Financial Attitude	FA1	It is important to set goals for the future		[1] Strongly disagree TO [5] Strongly agree
	FA2	I tend to live for today and let tomorrow take care of itself		
	FA3	After making a decision about money, I tend to worry too much about my decision		
	FA4	I find it more satisfying to spend money than save it for the long term		
	FA5	Money is there to be spent		
	FA6	If I borrow money, I have a responsibility to pay it back		
Financial Knowledge	FK1	An Investment with a high return is likely to be high risky		[1] Strongly disagree TO [5] Strongly agree
	FK2	High inflation means that the cost of living is increasing rapidly and money in saving account losses value		
	FK3	I understand the cost of buying on credit		
	FK4	Investing in different assets reduces risk		
	FK5	It is less likely that you will lose all of your money if you save them in more than one place		
	FK6	I am pretty good at math		
Financial Behavior	FB1	I follow a weekly or monthly plan for expenses.		[1] Strongly disagree TO [5] Strongly agree
	FB2	I set long term financial goals and strive to achieve them		
	FB3	Before I buy something, I carefully consider whether I can afford it		
	FB4	I pay my bills on time		
	FB5	I keep a close personal watch on my financial affairs.		
	FB6	I have plans to achieve my financial goals		
Financial Advice	FAD1	I consider other opinions in financial decision making (buying, investing, savings, borrowings, etc.)		[1] Strongly disagree TO [5] Strongly agree
	FAD2	I would trust financial professionals and accept what they recommend		
	FAD3	Financial advice is only suitable for people who have a large amount of money to invest		
	FAD4	I would pay for financial advice if the costs were reasonable		
	FAD5	I decide completely autonomously; the bank just executes my decisions		
	FAD6	I tell bank/advisor how I intend to invest and ask for their opinion		
Financial Inclusion	FI1	For me, banking services are far and not easily accessible		[1] Strongly disagree TO

	FI2	For me, banking services are still expensive	[5] Strongly agree
	FI3	Do you have enough documentation to have a bank account	
	FI4	One bank account is enough in my family	
	FI5	I don't need financial services	
	FI6	Non-banking financial services are easily accessible in my town/city (like insurance, microfinance, etc.)	
	FI7	Do you trust formal banks and the financial system	
Financial Capability	FC1	I could arrange at least 2000$ if an unexpected need arose within the next month	[1] Strongly disagree TO [5] Strongly agree
	FC2	I have enough funds to survive for three months without regular earnings	
	FC3	I often use electronic payment mode for paying bills through (credit card, debit card, online banking, mobile banking, etc.)	
	FC4	I have more than one/ several sources of income	
	FC5	I am good at dealing with day-to-day financial matters, such as checking accounts, credit and debit cards, and tracking expenses	
	FC5	I plan for retirement or have a retirement account	
	FC7	Have you ever calculated how much you need at retirement	
	FC8	Do you have insurance (such as health, life or accidental)	
		To what extent do you satisfied or dissatisfied with….	
Financial Satisfaction	FS1	I am satisfied with my current saved money.	[1] Strongly dissatisfied TO [5] Strongly satisfied
	FS2	I am satisfied with my current preparedness to meet emergencies?	
	FS3	I am satisfied with my current financial situation?	
	FS4	I am satisfied with my financial convenience and financial health?	
	FS5	I am satisfied with my current financial management skills?	
	FS6	In the last months, I have been able to save money as much as I have wished.	
	FS7	Overall, thinking of your assets, debts, and savings, how satisfied are you with your current personal financial condition	
Risk Tolerance	FRT1	In terms of investing, safety is more important than returns.	[1] Strongly disagree TO [5] Strongly agree
	FRT2	I am more comfortable putting my money in a bank account than in any risky option.	
	FRT3	When I think of the word ''risk'', the term ''loss'' comes to mind immediately.	
	FRT4	Making money in stocks and bonds is based on luck.	
	FRT5	I lack the knowledge to be a successful investor.	
	FRT6	Investing is too difficult to understand.	
	EH1	I have enough income to meet my expenses	

Economic Hardship	EH2	I face trouble in paying rent/Mortgage, bills like electricity, etc.	[1] Strongly disagree TO [5] Strongly agree
	EH3	I have to frequently cutbacks my personal expenditures	
	EH4	I have family and friends' financial supports	
	EH5	How much money do you have leftover the day before your next paycheck or other income payment	
	EH6	Have you been late with debt payment, housing loan or any other	
	EH7	Do you have medical expenses bills burden on you	

Qualitative Interview Guide

Interview disclosure and details

Thank you for speaking with me today about financial capability and financial satisfaction among low-income individuals. The interview will take about 45-60 minutes or even more

Please remember that everything you share with me will be kept strictly confidential and only for academic purposes. NO personal information will be disclosed or shared with others. None of your information or information about the topic of discussion will be shared with anyone outside this study. Please know that there are no right or wrong answers to these questions, I am only interested in your opinions, information, knowledge and your own views and opinion. If you find any of these topics difficult please let me know. If you wish to decline to answer, you may do so, and you do not have to explain this. Please let me know if you need to take a break at any time. If you have any questions, please let me know. If you have questions regarding financial capability and satisfaction, I will try and answer these at the end of the interview. Before I begin, do I have your permission to audio-record our conversation? Do you have any questions before we begin the interview? Audio-Video test- (START AUDIO RECORDER)

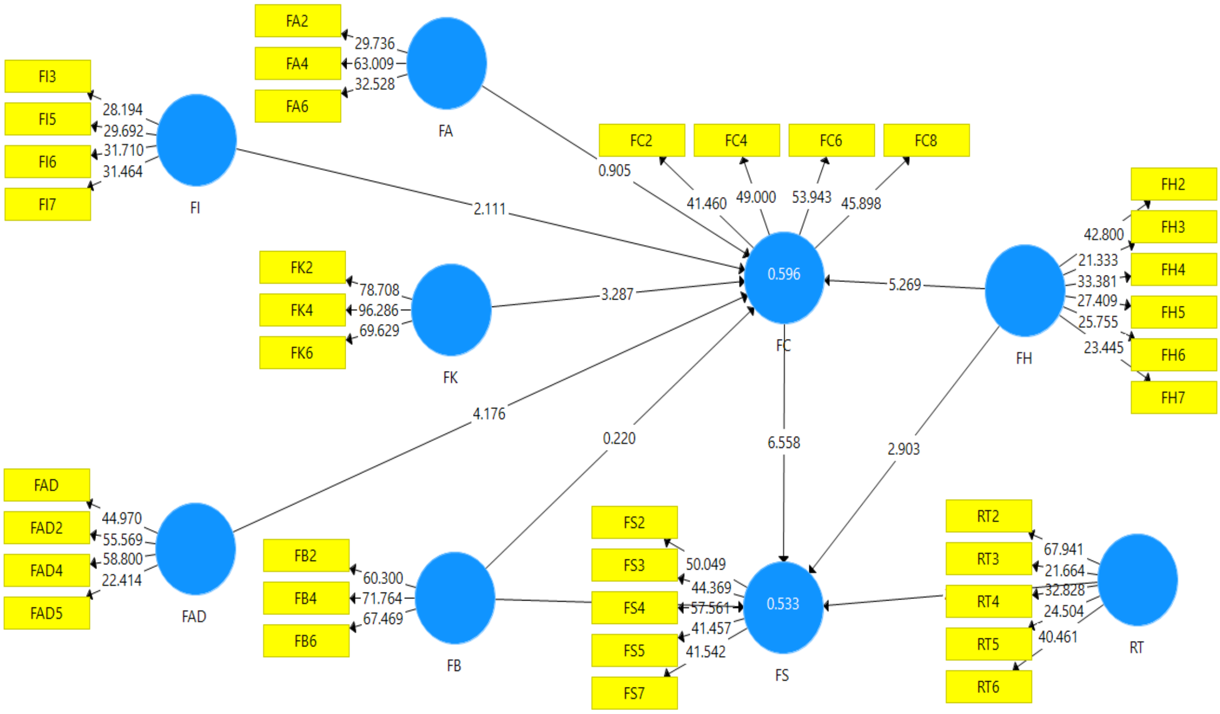
All set. Let's the interview begins.

This interview is on 15th January 2022, on the following topic "Determinants of financial capability and financial satisfaction" and interviewers and interviews both understands that this is interview is being recorded. Is this correct?

Research Questions

- To Explore and understand how low-income individuals' financial capability can be improved and built. Highlight the factors and explain what contributes to or needs to be the focus and how to improve and develop the financial capability of low-income individuals. (No words limit)
- To Explore and understand how low-income individuals' financial satisfaction can be enhanced and improved. Highlight the factors and explain what contributes to or needs to be the focus and how to improve and increase the financial satisfaction of low-income individuals. (No words limit)

Table 20 PLS Calculation-SMARTPLS 3



Source: own research

Khurram Ajaz Khan

Determinants of financial capability and financial satisfaction among low income individuals: A case study of India

Determinanty finanční způsobilosti a finanční spokojenosti jedinců s nízkými příjmy: Případová studie Indie

Edition: 5pcs

Typesetting by: Khurram Ajaz Khan

This publication has not undergone any proofreading or editorial review

Publication year: 2022