STUDY OF FINANCIAL WELLBEING: UNDERSTANDING THE ROLE OF FINANCIAL BEHAVIOUR, FINANCIAL INCLUSION AND FINANCIAL KNOWLEDGE

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By

Ruchi Sarwal

Registration Number: 41900758

Supervised By

Dr. Pooja Sharma (16767)

Department of Management

(Associate Professor)

Lovely Professional University

Co-Supervised by

Dr. Mithilesh Pandey

Business Studies

(Assistant Professor)

IBS Hyderabad

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DECLARATION

I, hereby declare that the presented work in the thesis entitled "Study of Financial Wellbeing: Understanding the Role of Financial Behaviour, Financial Inclusion and Financial Knowledge" in fulfilment of the degree of **Doctor of Philosophy (Ph.D.)** is an outcome of research work carried out by me under the supervision of Dr. Pooja Sharma, working as Associate Professor in the Mittal School of Business of Lovely Professional University, Punjab, India. In keeping with the general practice of reporting scientific observations, due acknowledgements have been made whenever the work described here has been based on the findings of another investigator. This work has not been submitted in part or full to any other University or Institute for the award of any degree.

Ruchi Sarwal

Reg. No. 41900758

Mittal School of Business

Lovely Professional University, Phagwara

Date:06/09/2024

CERTIFICATE

This is to certify that the work reported in the Ph.D. thesis entitled “Study of Financial Wellbeing: Understanding the Role of Financial Behaviour, Financial Inclusion and Financial Knowledge” submitted in fulfilment of the requirement for the award of degree of **Doctor of Philosophy (Ph.D.)** in the Mittal School of Business, is a research work carried out by Ruchi Sarwal, 41900758, is bonafide record of her original work carried out under my supervision and that no part of thesis has been submitted for any other degree, diploma or equivalent course.

Dr. Pooja Sharma (16767)
Mittal School of Business
(Associate Professor)
Lovely Professional University

Dr. Mithilesh Pandey
Business Studies
(Assistant Professor)
IBS Hyderabad

ABSTRACT

The term 'financial well-being' describes an individual's financial health and stability. It involves numerous facets of financial life and goes beyond the quantity of money one has. Achieving the state of financial well-being entails managing money wisely, making informed financial decisions, and feeling financially secure. Financial well-being substantially impacts an individual's entire quality of living his life. It guarantees that an individual's basic survival needs are met, that he has financial stability, that he can maintain a healthy lifestyle, and that he can manage his stress. It enables people to invest in professional development, pursue additional education, and take measured risks. It allows people to engage in leisure activities, travel, and pursue hobbies that improve their well-being and happiness. It enables individuals to save and invest money for future financial events, assuring financial independence in later years. It also allows individuals to construct an emergency fund, offering a safety net in case of unexpected expenses such as medical problems, house repairs, etc.

We all live in a world where money is required to meet even the most necessities. Unavailability or a lack of funds become impediments to living a peaceful life. An individual's financial limitations may have far-reaching effects, even on society's well-being. Financial insecurity, poverty, or financial troubles negatively influence individuals, their families, and society. Financial insecurity lowers cognitive capacity (Mani et al., 2013) and has a negative impact on productivity (Brown, 1999). A lack of financial well-being (FWB) causes people to live in insecure situations, reduces their economic mobility, and can turn a minor financial problem into a long-term financial limitation (Gennetian & Shafir, 2015).

Significant socioeconomic and cultural transformations have occurred within India over the last 70 years. After independence, several economic strategies were followed in the first two decades, developing a substantial and robust public sector manufacturing base (Balakrishnan, 2007; Nayyar, 2006). The growth of various public-sector enterprises, which provided employment security and stability, culminated in forming a new middle class. Salaries and living standards were low,

but educational and economic aspirations were lofty. Due to substantial import duties and slow development in private firms, material items for consumption were scarce, and consumer bias was low. Major international firms established operations in India once the country's economy was liberalised in 1991 (Pedersen, 2000). Beginning in the early 2000s, the United States and other Western nations' jobs were outsourced, which led to a notable increase in middle-class prosperity, employment prospects, and salary (Beinhocker, 2007; Fernandes et al., 2014). Many young individuals earned higher starting salaries than their parents' retirement salaries in the late 1990s and early 2000 (Taylor et al., 2013).

Conspicuous consumption increased significantly due to this newly discovered affluence (Mathur, 2010). The GDP per capita has been steadily rising; even the middle-income bracket in India is now substantially wealthier than in previous generations, and they want to raise their standard of living even further. It was also one of the motivators for researchers to investigate the aspects that influence one's financial well-being.

This study is designed to gain insight into the factors affecting financial well-being from the viewpoints of individuals to benefit families, society, and the country as a whole. The study sought to determine the elements that motivate people to engage in positive financial behaviour and achieve financial well-being. Accordingly, the conceptual framework was constructed based on the key aspects of financial well-being identified in a literature review. Some independent variables, such as financial efficacy, attitude, financial inclusion and financial behaviour, were included in the conceptual framework to investigate the predictors of an individual's financial well-being. Some theories, like the theory of planned behaviour, the theory of financial wellbeing, and subjectivist theories of wellbeing, were used to create a conceptual framework for the study.

The data used for the analysis of this study was collected from Punjab since its per capita income is higher than the national average (as measured by the Ministry of Statistics & Programme Implementation 2021). The data was collected using the purposive sampling technique with a sample size of 1100 (the respondent ratio is based on the earning population of each district in Punjab). The mediating effect of financial inclusion on the relationship between financial behaviour and financial well-being was also examined in this study. The moderation effect of categorical variables (gender, education, income, and age) and continuous variables (financial knowledge) was also explored regarding the association between financial attitude, efficacy, and financial behaviour.

As per the questionnaire responses, people desired to save and invest money for their children's marriage and retirement. This finding can help financial institutions develop more products for these reasons at affordable costs and higher returns. It was also found that respondents were self-confident in finding avenues and investing based on their risk and return appetite. Government and financial institutions can plan financial awareness programs to help people gain financial knowledge and rationalise their goal-oriented investments.

Further, the analysis of the causal connections among the independent variables (Financial attitude, financial efficacy, financial knowledge, financial behaviour and financial inclusion) and the dependent variable (financial well-being) depicted that each variable influenced the individual's financial well-being. Financial behaviour and financial inclusion impact a person's subjective well-being. Financial attitude, efficacy, and knowledge strongly influence financial behaviour. As a result, it has been proven that when a person is influenced by financial knowledge and financial attitude and is confident in his investment efficacy, he exhibits positive and rationalises financial behaviour by employing various financial products. This path helps him to achieve the stage of financial well-being quickly. Suppose the government, financial, and educational institutions work together to impart quality financial knowledge, provide affordable financial products, and generate more sources of income by creating better job opportunities. In that case, a person’s financial well-being level in the country will rise. It will benefit the country by having a healthy financial effect on the economy.

MGA (multi-group analysis) was also used to examine the moderating effects of gender, education, income, and age. The test for measurement invariance (MICOM) was performed before delivering the MGA to validate whether or not there was any variance in the results. There was a variation in the likelihood of the moderation effect of demographic factors among the conceptual model's linkages. Where the gender variable moderated two conceptual model relationships, on the other hand, the education variable subgroups moderated three conceptual model linkages. Income moderated three relationships, while age moderated one.

The current study will assist individuals in understanding the elements and the path leading to financial well-being because a financially secure person can see his impending occurrences in life that would necessitate money resources. According to the study's findings, a person with a financial attitude might be confident in investing his money if he uses the principles of financial knowledge to make financial decisions. As a result, his financial behaviour will improve. A person with rationalised financial behaviour should take advantage of various financial tools such as savings accounts, mutual funds, credit cards, insurance, stock investments, etc. In other words, he should be adequately accounted for financially by making separate investments for his future financial needs. Following this path will likely bring one closer to one's financial well-being and allow one to enjoy financial freedom. This state aids in the whole development of an individual by relieving him of any financial worries.

Simultaneously, financial and educational institutions can help to promote financial inclusion at a large scale by reaching out to underserved populations by providing access to banking services, credit, and insurance, adopting and enforcing responsible lending practises to keep individuals out of debt traps, and providing clear and transparent information about financial products to help them make informed decisions. Offering digital literacy programmes to assist students and graduates in securely navigating online financial services, developing vocational training programmes to provide individuals with practical skills and knowledge for employment and entrepreneurship, providing career counselling services to assist individuals in making informed decisions related to their education as well as career paths, and establishing partnerships with businesses and industries to facilitate job placement services for students and graduates, can help individuals to be financially included and showcase positive financial behaviour for their financially free life.

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LIST OF ABBREVIATIONS

EFF	Financial Efficacy
ATT	Financial Attitude
FIN_BEH	Financial Behaviour
FIN_INC	Financial Inclusion
FIN_WBNG	Financial Wellbeing
FKNW	Financial Knowledge
UG	Undergraduate
PG	Post Graduate
PhD	Doctor of Philosophy
MGA	Multi Group Analysis

Chapter – 1

INTRODUCTION

Every person on earth wants to experience worldly pleasures throughout their lifetime. Most humans share these typical desires. "I wish I had a house by the beach," "I wish I were affluent," "I hope my children could go to school overseas," and "I wish I could enjoy a happy and free life after retirement." One needs a sizable sum of money to achieve all these aspirations. However, as per the World Inequality Report 2022, the income distribution in India in 2022 shows that the wealthiest 10% of citizens made 57 per cent of the nation's total income, while the lowest 50% earned just 13 per cent. The bottom 50 per cent of the population's average national income in the same year was Rs 53,610. According to an EY-Refyne poll (2021), in India, 80% of workers use all their pay before the month ends, while 34% do so by the middle of the month. Additionally, only 13% of workers can save a respectable sum each pay period.

The situation is much direr regarding long-term financial behaviour because, according to recent industry research, retirement savings are not the top priority for 85% of working-age people due to high day-to-day expenses and meagre savings. Ironically, although most working-age individuals do not prioritise retirement planning, more than two-thirds of the total (69%) fear running short of financial sources after retirement, and about 66% of respondents are worried about sufficient funds for necessities in life after retirement (HSBC Global Report, 2016). This data depicts how important financial stability is in nearly every developed country where pensions are inaccessible for retirement. It is an individual's responsibility to plan for all expenses after retirement when there is no source of income. Young adults between 20-30 years are particularly at risk from these financial dangers. Because during the recession, many Generation Y workers (individuals born in the early 1980s and the mid-1990s) started their careers (Kasperkevic, 2016). These young folks are still struggling when the markets improve since they began with low incomes (Kasperkevic, 2016). Still, experts advise Generation Y members, in particular, to save up to 15-20% of their yearly revenues at the age of 25 to retain a similar quality of life standards after retirement, which seems very difficult (Struck, 2012).

According to the OECD Report 2022, most developed nations' household savings rates have fallen recently. Private spending has increased due to a stable labour market, rising consumption demand, declining savings rates, and further rising student debt, which are other issues that are being noticed repeatedly.

How can anyone ever dare to fulfil his dreams under these circumstances? There are other reasons people cannot save to achieve their dreams, like low saving rates, low income, low financial awareness to invest money, rising debts, etc. These reasons act as barriers to achieving the required future goals.

From time to time, academicians have highlighted the significance of learning in persuading people to adopt more virtuous saving and spending habits (Anderson & Ostrom, 2015). As the world economy gradually returns from the recent financial crisis, businesses, policymakers, and regulators emphasise citizens' sound spending and saving practices. Increasing understanding in this field is critical since many persons are experiencing financial difficulties that pose a societal challenge. However, they need to understand that financial health is crucial for every individual, and studies (Netemeyer et al., 2018; Shim et al., 2009) have demonstrated a high and positive correlation between a person's financial well-being and overall health. Maintaining a sound balance between saving and spending is necessary to ensure long-term financial and personal well-being (Van Praag & Frijters, 2003). According to Hojman et al. (2016), people who have been consistently over-indebted exhibit more depressed symptoms, leading to personal stress. Unwise spending and saving habits affect individuals, their families, and societies (Dunn & Mirzaie, 2012; Kim & Garman, 2003). The scenario is, more or less, the same globally. From the facts mentioned above, it is pretty clear that financial security is a must in everybody's life, and the path to financial security comes from a person’s financial well-being.

1.1 FINANCIAL WELL-BEING

Peace of mind would be the most significant advantage to a financially satisfied person. One needs to be financially satisfied to cover the journey of financial well-being. Financial well-being is "a state of being where a person can fully meet current and ongoing financial obligations, feel secure in their financial future, and make choices that allow them to enjoy life" (Salignac, 2020). Consumer Financial Protection Bureau (CFPB) says financial well-being has four components. (1) "Control over your monthly and daily finances," (2) "financial independence to choose how to live life," "Capacity to absorb a financial shock," Fourthly, you are "on track to meet your financial goals." Ponchio et al. (2019) found the dual sides of financial well-being: stress about day-to-day money management and future finances.

In the literature, financial well-being was regarded as one's financial status, like how many material possessions he had. However, now the meaning of this concept has been changed from material to non-material aspects like one's perception and satisfaction from one's assets acquired, improvement in living standard, sense of meeting day-to-day needs, a feeling of financial security, comfortability and satisfaction from individual's income. So, financial well-being is an individual's safety, adequate financial sources, and protection against economic risks like illness, joblessness, poverty, bankruptcy, and retirement destitution. Van Praag et al. (2000) believe that financial well-being is a subcomponent of personal well-being, and those other five components are housing, health, environment, leisure and job.

Financial well-being has two broader areas: subjective and objective well-being. As per the objective approach, financial well-being is considered a finance-related decision leading to financial well-being. However, most research has been done on an essential aspect of subjective financial well-being: how people feel about their financial position. It measures to what extent people feel anxiety about uncertainties and decisions involved while making financial decisions and also to what extent psychological factors like self-control and deliberative thinking, etc. (Strömbäck et al., 2017) can reduce anxiety about the feelings of an individual's financial situation.

People worldwide face daily challenges due to fast-moving environments; college students see internship and post-graduation job cancellations, and small businesses have been forced to close. In this situation, no one knows when his regular income will stop. So, early and timely spending, saving, and investing decisions should be made for present and future financial security. It is typically recommended that everyone build an emergency fund that can cover three to six months' expenses, with more being indicated for single-income households (Abdullah et al., 2019). However, there is no one-size-fits-all number for a good safety net. But the goal of this emergency fund is to at least support families during difficult times. In short, the ample amount of saving done considering every goal in mind frees an individual from anxiety for any future event. This sense of satisfaction is known as financial well-being.

1.2 GROWING IMPORTANCE OF FINANCIAL WELL-BEING RESEARCH

Financial well-being research has gained importance recently due to its growing recognition and significance for individuals, businesses, and society. Financial well-being directly affects individuals' mental health, quality of life, and happiness. It helps to reduce financial stress and insecurity and gives individuals the power to develop strategies for keeping themselves financially free and leading a better life. High financial stress and insecurity levels can lead to decreased consumer rational financial decision-making capacity, increased debt, and reduced economic growth (Friedline & Morrow, 2021). A person's financial well-being is closely linked to the economic stability of a nation. So, to promote economic stability, governments and policymakers of each country make considerable efforts to find ways to make their fellow citizens financially accessible. In recent times, employers have also increasingly recognised the importance of financial well-being for their employees because financially stressed employees are less productive and more likely to take sick days. Research in this area helps employers design and implement effective financial wellness programs and other benefits to support their workforce. Not only the workplace but various health issues, including anxiety, depression, and physical health problems, are also linked with financial stress (Andrews & Wilding, 2004).

Research in financial well-being also sheds light on issues related to financial inclusion and disparities. It helps identify barriers to financial access and gives ways to address them, ensuring that all individuals have the opportunity to improve their financial health. Due to changes in the pattern of pension in old age, retirement planning has become increasingly important, especially for private sector employees. Research in financial well-being can help individuals, employers, and governments develop better retirement savings strategies and policies to ensure financial security in later years (Brüggen et al., 2017). To fulfil all these purposes, effective financial education is essential to improve an individual's financial well-being. Researchers are helping to identify the most effective educational strategies and materials, ensuring that individuals can access the knowledge and assets required to make wise financial decisions.

Financial decision-making depends on human psychology and gives biases to decision-making. Understanding these behavioural factors can lead to the development of tools and interventions to help individuals make wise financial choices. Studies in the field of financial well-being can highlight wealth and income distribution disparities, helping policymakers and organisations to address systemic inequalities and promote economic and social equity. Data analytics and technology advancements have made it easier to collect and analyse data on financial well-being, applying more sophisticated research methodologies and a deeper understanding of financial behaviours and trends. In short, the growing importance of financial well-being research is driven by its profound impact on individuals' lives, economic stability, healthcare outcomes, and social equity (Stiglitz, 2002). As policymakers' understanding of financial well-being deepens, it relaxes norms, policies, practices, and interventions aimed at improving the financial health of individuals and communities.

1.3 KEY FACTORS INFLUENCING FINANCIAL WELL-BEING

As per past research, financial well-being is inspired by a combination of factors that encompass one's financial situation, behaviour, and mindset, and these factors are:

- Higher-income
- Effective budgeting and prudent spending
- Savings and emergency fund
- Rationalized debt management
- Rational investments
- Financial literacy
- Employment benefits
- Adequate insurance coverage
- Well-defined financial goals
- Social support for emotional and financial assistance
- Mental health
- Government policies on taxation, social safety nets, and economic conditions
- The country's economic conditions
- Individual life events like marriage, divorce, childbirth, or a significant health issue
- Financial services and accessibility in the country
- Age and life stage

1.4 IMPORTANCE OF FINANCIAL WELL-BEING IN INDIVIDUALS' LIVES

Financial well-being is a crucial aspect of individuals' lives that has far-reaching implications for their overall quality of life, emotional well-being, and prospects. Individuals feel the importance of financial well-being in meeting basic needs like food, shelter, clothing, and healthcare. A low level of financial well-being leads to financial instability, stress, anxiety, and insecurity. Worrying about money, debt, or unexpected expenses can affect mental health. Conversely, when individuals have control over their finances, they experience less stress and improved emotional well-being.

Financial well-being allows individuals to make choices that align with their values and aspirations. It enables them to pursue education, travel, start a family, or retire comfortably without financial limitations. Financial well-being is also linked to physical health. Having the resources to access healthcare and maintain a healthy lifestyle is critical for overall well-being. Lack of financial resources causes financial stress that leads to health problems, including heart disease, high blood pressure, and depression.

With financial stability, individuals can invest on personal and professional fronts. They can acquire new skills, further their education, or start a business, opening doors to new opportunities and higher income potential. Financial well-being is essential for personal life as it can reduce money-related conflicts and ensure that individuals can care for their loved ones, fostering more substantial and stable relationships. Being in a state of financial well-being motivates an individual to have an emergency fund, which is crucial for dealing with unexpected events like medical emergencies, job loss, or natural disasters. It provides a safety net, prevents individuals from falling into a debt cycle, and prepares them for retirement. It motivates individuals to save and invest during their working years, ensuring a comfortable and secure retirement, allowing them to maintain their lifestyle and pursue hobbies or travel during their golden years. Achieving financial well-being enables individuals to plan for their legacy and the well-being of future generations. They can pass on assets, support their children's education, and leave a positive financial impact on their heirs. Financially stable individuals can contribute to their communities and make a positive social impact. They can donate to charities, support local businesses, and participate in civic activities, thereby strengthening the fabric of society.

Financial well-being is not just about having money; it is about having the financial security, financial satisfaction and resources needed to lead a fulfilling and balanced life. It impacts every aspect of an individual's existence, from mental and physical health to personal relationships and prospects. Therefore, fostering financial well-being should be a fundamental goal for everyone and requires careful planning, budgeting, and financial education.

1.5 LINKING FINANCIAL BEHAVIOUR, INCLUSION, AND KNOWLEDGE TO FINANCIAL WELL-BEING

As per the literature, a variety of factors impact financial well-being, such as self-control, personal saving orientation, materialism, expected financial security, optimism, deliberate thinking, social motivation, income security, financial worries, parental influence, credit counselling, financial satisfaction, framing effect, household portfolio, etc. However, the authors emphasised some factors that significantly impact financial well-being, including financial behaviour, financial knowledge, financial attitude, financial efficacy, and financial inclusion. Financial inclusion helps to ensure that everyone, regardless of income level, has access to the right financial products and services (Demirgüç & Klapper, 2013). Access to an affordable variety of products gives an individual freedom to invest and match the invested maturity amount and invested time with his goals to be achieved. However, financial inclusion will not get its desired results by the time individuals do not know interest rates, compounding, present and future value of money, risk involved in different investments, etc. Hence, an individual needs to possess a reasonable degree of financial knowledge. The application of financial knowledge gives rise to positive financial behaviour. It helps individuals to reason while making financial decisions.

To a large extent, financial behaviour substantially impacts financial well-being. It enables an individual to perform cash, credit, savings, and investment tasks correctly (Chong et al., 2021). All of these actions assist a person in controlling his monthly and daily finances, giving him the financial independence to choose how to live, allowing him to withstand a financial shock, and ensuring that he is on the right track to achieve his financial goals. According to the research, some personal factors, such as financial attitude and financial efficacy financial capability, substantially impact financial behaviour. Financial knowledge, attitudes, and efficacy are essential to making financial decisions and achieving wealth (OECD, 2012). An individual's mindset, assessment, and judgement regarding money is their financial attitude (Pankow, 2012), and financial self-efficacy is a subjective indicator of financial competence based on initial self-efficacy theoretical advancements (Bandura, 1982). It is an individual's beliefs, confidence and attitudes in financial decisions. According to the literature, higher levels of financial attitude and financial efficacy have a considerable influence on financial behaviour (Kempson et al., 2005)

1.6 FINANCIAL BEHAVIOUR

The handling of one's finances includes budgeting, saving, and spending. Stated differently, financial behaviour refers to human actions involving money management, including saving, investing, budgeting, managing credit, and cash (Hilgert et al., 2003). In its most basic form, financial behaviour is keeping an eye on one's financial situation, making wise choices, and managing one's debts, savings, and investments (Alkaya & Yagli, 2015).

The importance of assessing the financial behaviour of investors is increased by the growth of financial markets, variations in investor profiles, and the complexity of financial products. Financial behaviour management is always motivated to acquire, allocate, and use financial resources toward some goal. Positive financial behaviour is essential to live a financially stress-free life. Empirical data supports that effective financial management benefits families' long-term economic well-being and financial contentment (Consumer Financial Protection Bureau, 2015). In contrast, poor financial behaviour can result in short-term or long-term debt, the inability to pay utility bills, bankruptcy, and other problems. It can also cause psychological problems, stress, depression, avoidance of social situations, and other negative effects. However, financial behaviour is complex and challenging to implement. So proper supervision of money and expenditure, including frugal and careful spending, is a valuable protection against risky financial practices.

Positive financial behaviour practices are essential for investment decisions because financial decision-making consists of choosing the optimal option from various accessible options while considering complex situational factors. Moreover, every investor has a distinct level of financial capability and knowledge, and these factors also significantly impact the investment decision-making process. The financial behaviour of any individual doesn't remain the same all the time, and investment choices are based on psychological factors that affect the ability of an investment to maximise wealth and the investor's behavioural motivation, or both.

Moreover, financial management behaviour may vary between younger and older people. Empirical evidence suggests that young people practice fewer basic financial tasks, such as budgeting or regularly planning their long-term savings (Jorgensen & Savla, 2010). As they practice more for making these decisions, they learn more about money management through experience. They are more likely to be exposed to possibilities for retirement planning at a later age. Apart from expertise, financial attitude and efficacy also matter and can make young ones invest better if they have a strong financial attitude and confidence.

In contrast, older cohorts may rely on their real expertise and financial well-being depending upon rationalised and timely decisions. Older persons have experience with borrowing and investing money rationally, which younger adults may not fully master (Cho & Shim, 2013). Improving one's financial situation is the primary objective of prudent financial behaviour. It also benefits society indirectly because people who manage their money responsibly are less likely to have health issues like depression and anxiety and financial matters like troublesome debt (Gathergood, 2012). The household's pleasure and financial security may also increase due to responsible financial behaviour (Brüggen et al., 2017; Gathergood, 2012). Personal relationship disputes may result from improper financial management. Financial issues frequently lead to marital conflict and dispute (Kirchler, 2001), and having financial difficulties depletes mental resources and lowers performance at work.

Undoubtedly, a desirable consumption level, way of life, leisure activities, children's education, health care, retirement income, old age security, helping others financially, donating to charity and other "good causes," avoiding fraud, and social engagement are a few objectives of everyone living in society, which all is possible through every individual's positive financial behaviour. So, learning financial behaviour management is necessary for everyone who wants to achieve his goals. Prudent financial management impacts both individual and societal levels. As discussed earlier, a high level of financial behaviour can be seen in people with financial attitudes, financial efficacy, and financial knowledge to a reasonable extent (Amagir et al.,2018; Coskun & Dalziel, 2020; Dwiastanti, 2017).

1.7 FINANCIAL ATTITUDE

A person's financial attitude, which is their state of mind regarding money, is typically a product of his upbringing and environment. It is an individual trait that manifests as his propensities for a financial activity or behaviour. It displays a person's propensity or likelihood to engage in a behaviour. Pankow (2012) considers financial attitude as a state of mind, opinion, and assessment of finances, beliefs, and principles relating to various personal finance ideas. It is the ability to manage one's financial behaviour through holding onto a positive financial value, such as the need to save money, plan for the future, be patient when facing financial difficulties and find solutions, has a risk-taking mindset, and perceived risk and return (Diacon & Ennew, 2001).

An individual's financial attitude is closely related to who he is, his persona, capabilities, and vulnerabilities. A financial attitude develops very early in life. Parents are the first ATMs in everybody's life, and a person strongly identifies money with a parent's financial behaviour. How parents handle money, their spending patterns, and how individuals grow up affect one's perception of how necessary cash is for a happy existence and how easily it is available. Then, attitude is developed by one's habit of curiosity. After one's parents, one becomes more interested in diving deeper as he learns about personal economics from his elders, friends, coworkers, and the constant barrage of the media. It moves an individual closer to understanding the specifics of the options available and suitability for him. An individual's attitude toward finances will determine how risk-tolerant he is if he is prepared to take charge of his finances, dare to go beyond the obvious, and be able to put all that learned information into action with his wise and planned choice. A positive attitude results in financial security and personal economic empowerment.

A person's financial attitude plays a significant role in making his life successful. A person's perspective toward their financial difficulties can be determined by their reactions to a statement or viewpoint (Marsh, 2006). It all depends upon the person's financial attitude and how he sees the financial matters in his life. A good and right financial attitude can also be the foundation for suitable and appropriate financial behaviour (Kalra, 2013). One's financial attitude will determine his attitudes and behaviours towards financial management, financial planning, and decision-making. His financial mentality significantly influences the success or failure of financial issues. Conversely, one experiences financial troubles when one has a negative attitude towards money. People with negative attitudes find it challenging to build the required savings over time.

For every investment, the individual’s financial attitude is essential to understand, especially his "financial risk mindset" (the level of risk that an investor is prepared to take when making financial decisions) (Anbar & Eker, 2019). It refers to a person's risk perception about investment in a particular avenue, influenced by prior knowledge, beliefs, and attitudes toward specific pursuits or circumstances (Kalra, 2013). Due to its influence on an individual's risk mindset to accumulate long-term savings, financial attitude plays a significant role in the success or failure of financial management. A person with a highly positive financial attitude takes the lead in excellent financial planning and serves as a mentor in financial management in the personal budget.

Financial attitude is impacted by (Kim, 2021) success, prestige, power, and respect. It reflects investors' financial concern, level of financial security, depth of interest in financial matters, optimism, deliberate thought, and the necessity for precautionary savings. Financial knowledge makes it possible to have a positive financial attitude (Joo & Grable, 2004). Not all individuals possess the same financial attitude, which is crucial in achieving financial well-being. So, different attitude levels must be considered to estimate one's financial wellness.

When examining people's financial attitudes, Chatterjee and Correia (2020) identified six groups that can be used to categorise individuals: 1) Prudent Strivers: individuals with high anxiety levels, are relatively risk-averse, and are cautious with their money, do not invest in the stock market and includes students or middle-class employees. 2) Young and Carefree: young ladies without significant financial obligations or concerns, reasonably conservative and restrained. 3) Financial Achievers: professionals in their mid-career making good money, investing it in the stock market 4) Money Neutral: individuals spending freely, highly educated, unmotivated by money, do not engage in stock market investing. 5) Living for Today: individuals who lack financial restraint, spend carelessly, and do not worry about the future, - do not have enough savings. 6) Financially Inactive: older homemakers do not have to make financial decisions independently. Studying these categories is significant for financial product-selling companies to reach their sellers. These categories help financial institutions design financial products according to their target audience.

As per the literature, an Individual's financial behaviour results from his financial attitude. In short, financial attitude—a state of mind, opinion, and judgement towards finances—influences financial behaviour (Pankow, 2003). Financial well-being is also greatly influenced by financial attitude via financial behaviour.

1.8 FINANCIAL SELF-EFFICACY

"Self-efficacy" is a term used in behavioural psychology to describe a person's sense of agency, exhibited by their belief in their capacity to finish a task and, more broadly, overcome problems in life (Bandura & Wessels, 1994). An individual's beliefs, attitudes, and confidence in his financial decision-making ability are referred to as his financial self-efficacy (Kempson et al., 2006). Conversely, financial self-efficacy is the conviction in one's capacity to plan and carry out a series of steps to attain desired financial results. It is a belief in one's capacity to improve financial behaviour (Danes & Haberman, 2007). It measures one's confidence in one's capacity to do financial duties successfully and is directly related to motivation and behaviour. People's financial self-efficacy can be assessed through their actions, including how they overcame adversity, how they see their financial situation going forward, and how likely they are to think favourably or adversely about it. People with high financial self-efficacy believe in "challenges to be mastered, rather than as threats to be avoided" (Bandura, 1994). Such a mindset is likely to give way to success and, as a result, better personal financial outcomes. Significantly, financial self-efficacy differs from unbiased financial knowledge in conceptualisation and measurement. People may have high subjective knowledge and low confidence in their abilities to manage money, leading to moderate financial behaviour and non-achievement of desired results.

Individuals with higher levels of self-efficacy tend to exhibit such behaviours, set more challenging objectives, show a positive outlook on the activity, and show less harmful adverse mental effects (stress, anxiety, or suffering) related to adversity. How people make decisions and behave in personal finance has been greatly impacted by their financial self-efficacy (FSE). Financial efficacy is affected by past experiences, evaluating one's abilities by seeing others who complete similar tasks, personality, social pressure, social and cultural standards, family history, and frames of reference (Hira, 2010).

An individual's financial behaviour can be predicted by perceived self-efficacy (a person's conviction in their abilities), even though their actual capabilities may not match their behaviour. Because a person has the self-esteem to anticipate all activities to attain desired ends, his confidence in their abilities might influence the expected outcome. People with confidence see problems in challenging occupations as opportunities to grow rather than threats to be avoided as they have the mantle ability to solve the problem. They set challenging goals and are intensely preoccupied with moving forward with activities, and they are firmly committed to achieving those goals. According to research, compared to students with low financial self-efficacy, individuals with higher financial efficacy are more upbeat about the future, feel lower financial stress, and are better at credit management and retirement investments. Middle to high FSE levels can encourage people to invest money for the future and restrain their expenditures.

Financial self-efficacy helps people to get rid of several problems. Financial stress is less likely to be reported in people with stronger financial self-efficacy and more pronounced future financial optimism. A higher level of financial self-efficacy is linked to fewer financial issues, as they have more control over individual finances. It can be used to forecast financial behaviour, even though his behaviour occasionally may not match his true abilities. Self-efficacy is planning and carrying out actions to accomplish a goal. It influences personal financial behaviour and decision-making styles (Farrell et al., 2016). The level of financial self-efficacy varies depending on the individual.

FSE favourably influences risk-taking in investment portfolios and may thus play a crucial role in investment activity choices (Rothwell et al., 2016). People with higher financial self-efficacy can better manage and control their financial situations. Investors with higher FSEs often feel more in control of their financial situation over the long run than investors with lower FSEs do when uncertainties in investment returns prevail in the market. It favourably influences risk-taking capacity in portfolio investment. From the above discussion, it is clear that financial efficacy is a significant booster element for financial behaviour and that positive financial behaviour may help increase an individual's financial well-being.

1.9 FINANCIAL KNOWLEDGE

In the current era of technological technologies, people make complex financial judgements. Financial knowledge is understanding micro and macroeconomics and finance (Lusardi & Mitchell, 2014). Understanding financial issues is known as financial knowledge. People must comprehend fundamental concepts of everyday finance, including saving, investing, credit, interest rates, inflation, product pricing, and micro- and macroeconomic environments. Otherwise, one can be trapped in financial issues if he is not intelligent in his knowledge of this occurrence because every person is answerable for his financial security. More specifically, according to Lusardi and Mitchell (2014), financial knowledge is the ability to evaluate economic facts and make prudent financial management decisions. People who lack financial literacy will be unable to manage their finances sensibly, whether through savings, investments, or consumption. More specifically, having a solid understanding of math, inflation, and risk diversification make up financial knowledge. Individuals must have extensive financial knowledge to make decisions, such as knowledge of interest rates, inflation, risk, personal finance, money management, managing credit, saving and investing, and risk management. Financial knowledge, skills, and attitude make up financial competence.

Financial knowledge can be objective and subjective. A person's comprehension of numerous financial market and product components, such as assets, loans, savings, and investments, is used to quantify their objective financial knowledge (Leskinen & Raijas, 2006). One needs to gauge one's objective financial knowledge by comprehending inflation numeracy, calculating interest rates, and understanding risk diversification (Lusardi & Mitchell, 2014). On the contrary, subjective financial knowledge is the "belief in one's grasp of financial matters." Various financial outcomes have regularly been proven to be positively correlated with financial knowledge. Robb et al. (2015) found the discrepancy between actual (objective) and perceived (subjective) financial knowledge shows that, despite a lack of objective financial knowledge, self-efficacy with little financial knowledge increases one's confidence in one's capacity to manage money. Despite having little financial education, people could be very confident in their financial abilities.

As a result of adequate learning in the past, people with good financial understanding would have a better sense of making decisions with a wise and responsible approach. Experts concur that financial education directly impacts financial behaviour intended to benefit the individual (Hilgert et al., 2003). A person with a higher level of financial knowledge can do comparatively better financial management, have managerial expertise, do financial planning, and manage costs and earnings quickly.

Financial knowledge has a substantial impact on financial attitude and behaviour. According to Alessie et al. (2011), having financial knowledge increases one's ability to plan for retirement and has a favourable correlation. It implies that those with greater financial understanding can make better retirement plans (Parker et al., 2012). Open discussions with parents regarding their investments and budgets give first-time exposure to financial knowledge. Apart from that, programs that (1) enhance individual financial management and budgeting, (2) improve their retirement planning as well as saving, and (3) prepare them for buying homes and homeownership are potent sources to improve one’s financial knowledge, which is an essential element to have positive financial behaviour (Chu et al., 2017).

Financial knowledge helps to make both long and short-term decisions. Additionally, favourable outcomes in terms of investment returns (Chu et al., 2017), long-term financial behaviours (Henager & Cude, 2016), and reduced likelihood of using costly alternative financial services (such as pawn shops and tax refund anticipation loans) have all been positively correlated with higher levels of objective financial knowledge (Robb et al., 2019). On the other hand, a lack of financial literacy usually leads to financial problems, like unpaid credit card debt, no social security, and insufficient retirement savings.

1.10 FINANCIAL INCLUSION

Financial inclusion describes making financial products and services available and affordable to all individuals and enterprises, regardless of personal wealth or corporate size (Demirgüç et al., 2013). It aims to remove the barriers that discourage people from engaging in the financial industry and benefiting from its services, also known as inclusive finance. Even though there may not be an easy way to define financial inclusion, the literature has identified several evident elements of the phenomenon, and those are (1) uniform availability of financial services, (2) regular usage, (3) high quality of financial services, and (4) the potential for increased welfare. Furthermore, access to financial services is particularly significant in emerging and low-income nations and among so-called vulnerable social groups. Additionally, empirical research demonstrates that the growth of the financial sector via a financial inclusion strategy reduces income inequality, though the effect may vary depending on the type of policy (Demir et al., 2022). Financial inclusion provides 1) Sound and safe institutions controlled by precise regulation and industry performance standards. 2) Access to a broad range of financial products and services at a reasonable cost for all households, including savings or deposit services, payment and transfer services, credit, and insurance. 3) Competition to offer choice and affordability for customers. Financial and institutional sustainability to assure continuity and investment predictability.

Financial inclusion (FI) is the best way to reduce income inequality. It is widely acknowledged in the battle against poverty and financial exclusion. It is essentially the initiative or programme that motivates citizens to use the reasonably priced financial services offered by the nation. FI initiatives typically target the underbanked population to strengthen their financial behaviour. Under the financial inclusion campaign, countries must launch an awareness campaign for FI to inform the public of its availability and advantages and encourage them to use financial services.

Financial inclusion has gained momentum in recent years as a dynamic instrument for achieving multifaceted macroeconomic stability, inclusive and sustainable economic growth, job creation, poverty reduction, and income equality for developed and developing nations (Chibba, 2009). By providing the "newly banked" with availability, easy access, and use of formal financial services governed by rules, financial inclusion is promoted among impoverished populations and at-risk groups, such as rural residents, women, and low-income families. These all greatly benefited from simple financial services like saving, borrowing, paying, and insuring because millions of individuals are still forcibly barred or forbidden from the financial system due to their low income and market discrimination in emerging countries, which could result in the loss of savings, investable money, and wealth building. Filling in these gaps and giving families and businesses better access to the resources needed to fund consumption and investment helps to increase economic activity.

Financial inclusion does not only serve as a goal in and of itself; instead, it encourages risk-taking. People can better manage potential hazards when they have access to credit when they need it and a secure place to store their money. It promotes inclusive growth because it enables economic agents to participate in long-term participatory investment activities, facilitates efficient resource allocation and lowers capital costs, manages unforeseen short-term shocks, vastly improves day-to-day financial management, and decreases the use of often exploitative informal sources of credit (Demirgüç-Kunt et al., 2015). All these initiatives help an individual strengthen his financial behaviour, leading to financial well-being. A significant fraction of the world's poorest population still struggles to achieve a minimal standard of living in developing nations, particularly in Asia, Africa, Latin America, and the Caribbean, despite decades of tremendous progress in reducing poverty and boosting prosperity. These regions appear to be making inconsistent progress in eliminating extreme poverty due to geographical and national-specific variables. Numerous researches have examined the factors that influence financial inclusion, suitable indicators of financial inclusion at the individual and national levels, and efficient financial service types for end users so that governments and policymakers can use these measures to promote economic growth, financial stability, female empowerment, poverty, and income inequality.

Financial inclusion in the country helps at the macro level to (i) increase and improve productivity, (ii) faster economic growth, (iii) decrease income inequality, (iv) widespread development, (v) global acclaim and recognition, (vi) likely increase in national income, (vii) increased employment and income opportunities, (viii) aid in more efficient distribution of subsidies, and (ix) helpful in the implementation of social policies. From the consumer side, Financial inclusion is helpful in smoothing consumption, protecting against avoidable expenses, protecting assets from significant disruptions, improving incomes, rationally using savings, escaping the grasp of moneylenders, increasing risk-taking capacity, expanding livelihood opportunities, saving time for state and federal governments in collecting periodic social security payments, and enhance self-worth and a sense of accomplishment.

Financial inclusion is one of the primary objectives for attaining universal financial access by 2022, as stated by the World Bank. To accomplish this goal, the Government of India (GoI) launched a nationwide financial inclusion initiative in 2016 under the name "Pradhan Mantri Jan Dhan Yojana (PMJDY) ". The Reserve Bank of India is constantly familiarising itself with methods to expand the market for Unbanked people now using the official banking system. Financial inclusion has primarily emphasised the concerns of rural financial issues and impoverished urban people, which have not been adequately addressed. The most marginalised groups are the street sellers and the urban underclass. According to statistics, there are an estimated 5–6 million street sellers in India. To empower street sellers, the Ministry of Housing and Urban Affairs of the Government of India recently introduced a unique programme called PM Street Vendor's Atma Nirbhar Nidhi (PM SVANidhi), which provides microcredit facilities. The program aims to offer loans to street sellers so they can thrive economically and holistically. About 50 lakh street vendors would be eligible for collateral-free working capital loans with a one-year term through the programme to assist them in reopening their shops in metropolitan regions, including peri-urban and rural areas nearby. Nearly 2.2 million of the 3.9 million applications received for this program have been approved, and almost 1.7 million loans were given on 5th March 2021 (https://pmsvanidhi.mohua.gov.in/). Estimates from the Government place street vending at 14% of all urban informal employment in the non-agricultural sector. There is a desire to give easily accessible bank credit to street sellers because they lack professional resources.

1.11 STATEMENT OF THE PROBLEM

Many individuals and families worldwide face increasing financial stress and instability due to rising living costs, debt burdens, inadequate savings, and unexpected emergencies. This dire situation highlights the urgent need for a comprehensive approach to improve an individual's financial well-being. Addressing this need will enhance the quality of life for individuals and households and contribute to overall economic stability and prosperity. Therefore, developing and implementing effective strategies and solutions that promote financial well-being at both the individual and societal levels is critical.

1.12 PURPOSE AND MOTIVATION OF THE STUDY

Today's complex and rapidly changing economic landscape requires individuals and households to achieve and maintain financial well-being. Financial well-being encompasses effectively managing financial resources, making informed financial decisions, and securing a stable and prosperous future. However, many challenges and factors hinder the attainment of financial well-being for a significant portion of the population. These hindrances are 1) limited financial literacy to navigate the complexities of personal finance, including budgeting, saving, investing, and managing debt. 2) Income inequality is widening in many countries, making it increasingly difficult for lower-income individuals and families to cover their basic expenses and save for the future. 3) High debt levels, whether from credit cards, student loans, or mortgages, can erode financial well-being by creating financial stress, limiting the ability to save, and increasing interest payments. 4) Inadequate retirement planning, leaving people financially vulnerable in their later years. 5) Emergency fund shortages leave people vulnerable to financial crises when unexpected events occur, such as medical emergencies or job loss. 6) Inability to obtain financial services, such as banking and affordable credit options, can hinder individuals' ability to manage their finances effectively. 7) Poor financial well-being can lead to stress, anxiety, and other mental health issues, further exacerbating the problem. 8) The ageing population need financial well-being to ensure a comfortable and secure quality of life in retirement. 9) Economic uncertainty, like the global financial crisis of 2008 and the COVID-19 pandemic, can quickly erode a person's and his family's financial well-being, highlighting the need for financial resilience. 10) Lack of future planning, such as homeownership, education for their children, and wealth accumulation, leads to missed opportunities and financial insecurity.

These barriers can be removed if an individual makes rational financial decisions based on financial knowledge. This may improve their financial behaviour, and they can plan their investments according to their goals. Timely fulfilment of objectives is financial well-being. So, this study will contribute to the path to financial well-being.

1.13 NEED FOR INVESTIGATING FINANCIAL BEHAVIOUR

An individual's financial behaviour must be optimistic to attain all desired goals within the required timeframe to achieve financial well-being. So, investigating the financial behaviour of an individual is often very necessary. Almost all institutions supporting individuals in achieving their financial well-being must study their financial behaviour patterns to extend their maximum help. The study of financial behaviour helps financial institutions assess an individual's risk profile when determining whether or not to provide loans, credit, or insurance. It facilitates lenders in investigating an individual's creditworthiness to determine whether someone is likely to repay borrowed funds. The study of financial behaviour helps financial institutions detect fraud, such as identity theft, financial scams, or suspicious transactions. For investment firms, it helps to analyse an individual's financial discipline, savings habits, and investment history to create various investment opportunities. Tax authorities get assurance that individuals are reporting their income accurately and paying the correct taxes. The study of financial behaviour helps legal and regulatory requirements to investigate anti-money laundering (AML) and know-your-customer (KYC) regulations. Estate planners are enabled to create effective financial strategies, manage debts, and ensure the orderly transfer of assets to beneficiaries. Financial institutions can determine borrowers' repayability and decide on collection strategies. Financial counsellors and advisors can offer personalised advice and guidance per an individual's financial behaviour needs. Studying financial behaviour is also helpful in personal relationships, such as marriages or business partnerships, to ensure partner compatibility and financial stability.

1.14 ROLE OF FINANCIAL INCLUSION

The accessibility and availability of financial services to all parts of society, mainly those historically underserved or excluded from the official financial system, is referred to as financial inclusion and includes access to banking, savings, credit, insurance, and payment services. Financial inclusion plays a diverse role with essential ramifications for individuals, communities, and economies. It serves as a tool for them to save money, obtain credit, and better manage their finances. It, in turn, can help people escape poverty by allowing them to invest in income-generating enterprises and establish financial security. Expanding access to financial services can boost economic growth by encouraging entrepreneurship, assisting small and medium-sized firms (SMEs), and raising investment in the economy's productive sectors. More people having access to credit and capital can help economic development. Financial inclusion can aid in the reduction of income inequality by allowing marginalised and vulnerable populations to develop money and engage more actively in economic activity. It fosters more equitable resource allocation and economic opportunity. By reducing the incidence of informal and unregulated financial services, widespread financial inclusion can help financial stability. People are less vulnerable to financial shocks and crises when they access formal banking and insurance services. Financial inclusion is critical in fostering gender equality since it provides women with financial tools and freedom. Women with financial access are more inclined to invest in education, health, and business initiatives, enhancing their socioeconomic level. Financial inclusion can increase social inclusion by integrating marginalised and excluded populations into the mainstream economy and economic gains. It has the potential to promote general social cohesion and minimise inequities. Financial inclusion in today's digital age frequently entails using technology, such as mobile banking and digital payment platforms. It increases access and availability to financial services and encourages financial literacy and inclusion via digital methods. Many nations and international organisations have recognised financial inclusion as an essential policy aim. They put programmes and regulatory measures in place to promote financial inclusion to accomplish larger social and economic goals. Expanding access to financial services can boost growth in the financial industry, opening up new markets and consumers for banks, microfinance institutions, fintech companies, and other financial service providers.

Financial inclusion is essential in encouraging economic development, eliminating poverty and inequality, and maintaining social and financial stability. It benefits individuals, communities, and nations' general growth and prosperity. Governments, financial institutions, and civil society organisations must collaborate to overcome barriers and build an enabling environment for accessible financial services to achieve real financial inclusion.

1.15 INFLUENCE OF FINANCIAL KNOWLEDGE

One's financial understanding and knowledge greatly influence one's financial well-being and decision-making. It significantly impacts various personal finance issues, including budgeting, investing, debt management, retirement planning, and overall financial stability. Here are some critical ways financial knowledge can influence one's financial life. It assists consumers in developing and adhering to a budget and helps them understand income, expenses, and the significance of spending tracking. It allows people to prioritise savings, create emergency funds, and appreciate the value of putting money aside for unforeseen needs or future aspirations. Individuals who understand interest rates, loan terms, and repayment alternatives can better manage and minimise their debt. For better investment choices and long-term wealth creation, one can make informed investment decisions after evaluating alternative investment vehicles, risk tolerance, and the power of compound interest. Understanding retirement accounts and retirement savings techniques is essential for achieving financial security in retirement. Understanding the tax code and different tax-saving tactics can help individuals reduce tax bills and keep more earnings. Financially literate individuals are better at identifying clear financial goals and developing a plan to accomplish them. Understanding insurance products and risk management approaches can assist in safeguarding individuals and giving them a shield against unexpected catastrophes such as accidents or health problems. It can increase trust in financial decisions. Individuals with financial understanding can recognise and avoid financial scams and frauds, safeguarding them from financial losses. Financially educated individuals are likelier to pass on their knowledge to their offspring, perpetuating a circle of financial responsibility and awareness within families. Increasing public awareness of financial ideas helps lessen the possibility of financial crises and the strain on public resources.

1.16 GAP ANALYSIS

Gap analysis, in any research, helps to discover insufficiency in understanding and practising concepts used and their relation to the real world. The interrelationships between the concepts under study, like financial attitude, financial efficacy, financial knowledge, financial behaviour, financial inclusion and financial well-being, are very crucial for launching affordable and customised financial products and services as well as effective financial education programs so that people can understand their future financial needs, save and invest accordingly after understanding return and risk on investment and achieve the desired level of financial freedom.

Farrell et al. (2016), Arofah (2019), and Chong et al. (2021) found a significant relationship between financial efficacy and financial behaviour. On the other hand, Bhushan and Medury (2014) and Rai et al. (2019) opined about the significant role of financial knowledge in creating financial behaviour. Researchers like Rai et al. (2019) and Loke (2015) identified the relationship between financial behaviour and financial knowledge. However, the role of financial knowledge in enhancing financial attitude and financial efficacy has yet to be sufficiently discussed and understood in previous studies.

In previous studies, Rahman et al. (2021) and Riitsalu and Murakas (2019) studied the significant influence of financial behaviour on financial well-being. On the other hand, Nandru (2021) and Sakyi- Nyarko (2022) studied the meaningful impact of financial inclusion on financial well-being. However, the influence of financial behaviour on financial well-being through financial inclusion is not studied in previous studies. In other words, the mediation effect of financial inclusion on the relationship between financial behaviour and financial well-being has not been studied in depth in previous studies. Further, most academics today are sceptical of the presumption of homogeneity in the sample from which the data was obtained. Chin and Dibbern (2010) discussed ignoring heterogeneity and emphasised that ignorance of the same frequently may lead to dubious results. Many studies have established in recent years that data collected from the population is considered homogeneous, repeatedly failing to analyse if subgroups in the data have significant deviations among themselves. Studies by Iriani et al. (2021) and DaSilva (2023) talked about the influence of demographic variables on financial behaviour, Prakash et al. (2022) and Furnham and Cheng (2017) opined about the influence of demographic variables on financial well-being. Still, in the literature, in-depth studies have not been done to find the influence of demographic variables on the relationship between financial attitude and efficacy with financial behaviour and the influence of demographic variables on the relationship between financial behaviour and financial well-being.

Addressing these gaps is crucial for developing more targeted financial education and intervention programs. Better educational curricula that encourage sound financial behaviour from a young age can be created by considering how financial attitudes change over time. Financial policies that are more inclusive may result from an analysis of the demographic variables influencing financial attitude and efficacy. By elucidating the significance of diverse forms of financial literacy, educators can concentrate on the most crucial domains. Lastly, adopting a holistic perspective on financial behaviour can lead to more successful methods of enhancing overall financial well-being.

The present research aims to fill these gaps by thoroughly investigating the interactions between financial attitude, efficacy, knowledge, and behaviour. The research uses the cross-sectional survey to examine the influence of financial attitudes and efficacy on financial behaviour and demographic variables. The study also analyses if financial knowledge strengthens the relationship between financial attitude and efficacy with financial behaviour. This thesis has advanced a more sophisticated comprehension of the interplay between financial behaviour, financial inclusion and financial well-being by recognising and filling in the gaps in existing financial research. The results have advanced theoretical understanding and guided real-world interventions to improve financial behaviour among various demographics to achieve individual financial well-being. From the above discussion, the following questions are taken as research questions for the study.

1. What fundamental personal factors impact the financial behaviour of any individual?
2. What impact does financial knowledge have on strengthening financial behaviour?
3. What role do demographic factors play in bringing financial well-being?
4. How effectively does financial behaviour impact financial well-being?
5. What role does financial inclusion play in bringing financial well-being?

1.17 SIGNIFICANCE OF THE STUDY

Studying financial well-being and financial behaviour is essential for individuals, families, communities, governments, financial institutions, and societies. This study will help understand the path that may lead to a person's financial well-being. By taking that path, one can quickly achieve financial freedom.

Financial well-being is closely linked to an individual's quality of life. Financial well-being and financial behaviour promote the urge to be financially literate. Financially literate individuals are better equipped to make rational decisions about saving, budgeting, investing, and managing debt, which can help individuals make wise investment choices and accumulate wealth over time. Financial knowledge and financial behaviour are crucial for achieving long-term financial goals, such as buying a home, sending children to college, or retiring comfortably. This kind of study helps individuals to plan strategies for managing financial risks through insurance and emergency funds, which all bring financial stability to one's life. Financial stability and security can reduce stress and anxiety, improve mental health, and help one understand and manage one's financial behaviour to enhance overall life satisfaction, directly impacting personal happiness and well-being. Studying financial behaviour aids in setting and achieving financial goals, whether buying a house, funding education or saving for retirement.

Family and social dynamics are essential parts of any individual. However, financial stress can strain relationships and lead to conflicts. Conversely, financial stability can promote stronger family bonds and overall social harmony. Financial stress has a tremendous negative impact not only on the family but also on the working capacity of an individual, leading to absenteeism, decreased job performance, and job instability. When people have better control over their financial well-being, they are often more productive and better contributors to the workforce and have a few conflicts on the family and societal side. So, in a nutshell, poor financial behaviour leads to high levels of debt and poor saving habits that can lead to financial stress for families, financial crises, economic downturns, and increased public debt. On a broader scale, the financial behaviour of individuals and households collectively affects the overall economic stability of a nation.

Studying financial well-being and financial behaviour is also very important for governments and policymakers. It helps them formulate effective policies that encourage responsible financial behaviour, address economic inequalities, and understand how people save, spend, invest, and manage debts. Last but not least, understanding financial behaviour is vital for consumer protection. It helps regulators and consumer advocacy groups identify predatory financial practices, fraud, and scams and protect vulnerable individuals.

1.18 CONTRIBUTION TO EXISTING LITERATURE

This study tries to find that if a person has the self-confidence to manage his money as per his required goals and timelines, along with a positive attitude towards money, he can show positive financial behaviour. This financial behaviour may still be strengthened if financial knowledge is imparted to that person to help him understand the concepts of risk, return, and timings for proper money management. Financial behaviour may get a boost if various financial products available are affordable. These financial products may help individuals save, invest, and manage multiple life risks. So, if a person makes rational decisions while considering his financial purpose, need, and timelines, he will feel free from the financial stresses of managing daily emergency funds and money required for future events. It is the stage of having perceived financial well-being. This study may help understand the path that may lead a person towards his financial well-being.

1.19 UNDERSTANDING THE IMPLICATIONS AND BENEFITS OF FINDINGS

This study may be very fruitful for individuals, governments and financial institutions. By understanding their financial behaviour and patterns, individuals can make more informed decisions about spending, saving, investing, and borrowing. It can give way to better financial outcomes and reduce financial stress, helping individuals acquire essential financial knowledge and skills to navigate the complexities of personal finance. With the combination of financial behaviour and financial knowledge, one can take more initiative to expand access to banking, credit, and insurance services to cover all future financial risks. These timely and rationalised choices positively impact their overall quality of life and lead to financial well-being. Improved financial well-being can lead to increased happiness and reduced stress.

Understanding financial behaviour and inclusion can provide valuable insights for policymakers. This information can guide the development of policies and regulations that promote financial stability, protect consumers, and enhance economic growth. Understanding different demographic groups' financial behaviour and needs can help governments design targeted interventions to reduce income inequality and promote financial inclusion. By monitoring and analysing financial behaviour on a macroeconomic scale, governments can identify potential risks to financial stability and take pre-emptive measures to mitigate them. Financial inclusion initiatives taken by understanding the above population elements can stimulate economic growth by giving individuals and businesses the financial tools they need to invest, save, and expand their economic activities.

This study may also be necessary for financial institutions because it provides the idea that a deep analysis of financial behaviour can help financial institutions better understand the creditworthiness of borrowers, reduce the risk of loan defaults, and improve lending decisions. This guidance can help develop financial products and services that better meet the needs and preferences of customers, leading to increased customer satisfaction and loyalty. To reach more customer segments and refine marketing strategies, knowledge of the financial behaviour of individuals in that region is required.

1.20 APPLYING RESEARCH TO REALITY: PRACTICAL RELEVANCE FOR INDIVIDUALS AND ORGANIZATIONS

Studying financial well-being is paramount for individuals and organisations due to its far-reaching practical applications and real-world relevance. For any individual, understanding personal finances helps to maintain stability in their lives. It ensures the coverage of basic needs like housing, food, healthcare, and education without worrying about financial crises. Knowledge of financial well-being aids in managing debt effectively. Individuals can make informed borrowing decisions, pay off loans, and avoid excessive debt, which can reduce financial stress because financial well-being motivates them to learn about financial knowledge and enables people to make informed choices about saving and investing. It can lead to wealth accumulation, retirement planning, and achieving long-term financial goals. It gives an individual a strong financial buffer against unexpected medical emergencies, job loss, or natural disasters. Being financially resilient means having the resources to cope with these challenges without falling into a financial abyss. Improved financial well-being enhances an individual's overall quality of life. It allows for more choices and opportunities, such as going for higher education, travelling, or starting a family. In modern times, financial stress is a leading cause of anxiety and depression. By studying and improving financial well-being, individuals can reduce mental health issues and lead happier lives.

Financial well-being is paramount for financial organisations, directly impacting their operations, profitability, and long-term sustainability. Financial organisations need to assess the creditworthiness of their customers before extending loans or credit. Understanding an individual's or business's financial well-being helps to make more accurate risk assessments. It can reduce the likelihood of defaults and non-performing assets and may ultimately improve the organisation's bottom line.

Financial organisations can design tailored financial products and services by understanding the financial well-being of different customer segments. For instance, they can create savings and investment products suitable for individuals at various stages of financial stability, attracting a broader customer base and planning strategies to retain them in business, such as offering financial counselling or modifying loan terms.

Personalised marketing campaigns based on customers' financial needs and goals can be more effective. Financial institutions can use data on financial well-being to target customers with relevant offers, improving marketing ROI and customer engagement. Financial institutions manage various financial risks, including market, credit, and operational risks. Assessing the financial well-being of borrowers and clients helps in more precise risk management, which is essential for maintaining financial stability.

Financial organizations also have a vested interest in their employees' financial well-being. Financial stress can impact an employee's productivity and overall job satisfaction. Offering financial education programs or support can lead to a more focused and engaged workforce.

Asset management firms and investment banks can benefit from understanding the financial well-being of their clients when making investment decisions. Understanding clients' financial situations can help tailor investment strategies to align with their risk tolerance and financial goals. Maintaining a reputation for responsible financial practices and customer care is crucial for financial organisations. Prioritising customers' financial well-being can help build trust and a positive public image and contribute to a region's or country's overall economic stability. Financial institutions can play a vital role in assessing and addressing financial vulnerabilities at both micro and macro levels for the financial well-being of individuals, communities, societies, and the country.

1.21 ORGANIZATION OF THE STUDY

There are eleven chapters in this study.

Chapter 1 (Introduction) introduces the study, including the concept background or research area, problem statement, significance of the study, research questions, and contribution to the existing literature. The study's structure follows this. This chapter also depicts the role of personal factors like financial efficacy and financial attitude in building one's positive behaviour and the impact of this financial behaviour on financial well-being.

Chapter 2 (Review of Literature) examines the research on the connection of financial behaviour with financial attitudes and efficacy and how financial behaviour and financial inclusion impact an individual’s financial well-being. This chapter represents the literature review regarding specific issues according to the variables. In addition, the research gaps (identified from past literature), which help lay the foundation of this study, have also been discussed in this chapter.

Chapter 3 (Research Methodology) discusses research design and methodology. It explains the study's universe, sampling unit and sampling size, the distribution of the respondents' sample, the development of the measurement scale, and the statistical techniques used for data analysis.

Chapter 4 (Usage Pattern of Financial Services) depicts the respondents' pictorial representation and analysis of their savings, investments, purpose of investment, mode of investment, investment alternatives, motives for investment, etc.

Chapter 5 (Factors influencing financial well-being) covers the path model analysis. This chapter attempts to find the relationship between financial attitude, financial efficacy, financial behaviour, and financial well-being. It covers the first objective of showing the relationship between financial attitude, financial efficacy, and financial behaviour.

Chapter 6 (Moderation and Mediation effect of variables) covers the second and third objectives of the study. This chapter tries to explain the moderation effect of financial knowledge on the relationship between financial attitude, financial efficacy and financial behaviour. It also presents the third objective, the mediation effect of financial inclusion on the connections between financial behaviour and financial well-being.

Chapter 7 (Moderation effect of Demographic variables) covers the fourth and fifth objectives of the research. This chapter presents the influence of the demographic variables mentioned on financial behaviour and well-being. The study's demographic variables are gender, education, age, and income.

Chapter 8 (Findings, Suggestions, Limitations and Future Work) covers the analysis's findings, suggestions to various stakeholders, limitations of this study, and future work prospects related to the study.

Chapter 9 (Managerial Implications) covers the research's managerial implications. It showcases how different stakeholders, such as individuals, financial organisations, governments, and society, can use this study.

Chapter 10 depicts the conclusion of the study

Chapter 11 gives the references used in the study

In this chapter, we looked thoroughly at the multidimensional field of researching financial well-being via the perspectives of financial attitude, financial efficacy, financial behaviour, financial literacy, and financial inclusion. These five characteristics are critical in evaluating and measuring an individual's financial health and overall economic resilience. First, we recognised the importance of financial attitude, which includes people's ideas, emotions, and perceptions about money management. Understanding how these attitudes impact financial decision-making processes is critical for developing effective treatments to promote financial well-being. Second, we looked at financial effectiveness, which relates to people's perceived capacity to successfully manage their resources and achieve their financial goals.

We can empower individuals to make educated and responsible financial decisions by increasing their confidence in their financial skills, resulting in increased financial resilience. Third, we examined financial behaviour, which includes the activities and decisions people make regarding their finances. Examining the underlying causes of these behaviours enables us to uncover patterns and trends that may promote or impede financial well-being, hence directing the development of individualised financial empowerment plans. Fourth, we looked into how crucial financial knowledge influences people's financial decisions and outcomes. Enhancing financial literacy and making financial education more accessible are critical steps towards giving people the skills and information they need to navigate complicated financial environments successfully. Finally, we discussed financial inclusion, emphasising the need to provide equitable access to financial services and opportunities to all parts of society. By removing obstacles to financial access and fostering accessible financial institutions, we can work towards a more fair and inclusive culture where everyone can attain financial well-being.

Throughout this chapter, we emphasised the interconnectedness of these five aspects and their combined impact on people's financial well-being. Recognising the complex interaction of psychological, societal, and economic factors is critical for developing comprehensive financial health and resilience approaches. The following chapters will investigate each component, examining pertinent ideas, empirical evidence, and practical applications. By combining ideas from multiple disciplines and techniques, we hope to provide a complete knowledge of financial well-being and contribute to the current discussion about building economic empowerment and resilience in varied circumstances.

Chapter – 2

REVIEW OF LITERATURE

A literature review is a study that determines the research gap in the research area where the researcher intends to work. The literature review helps the researcher understand the theories and the other work done earlier in the intended research work. The literature review allows the researcher to overview what has already been done in the intended research area, what questions have been asked, what techniques have been administered to analyse the data and other details related to the planned research area. It also helps the researcher find the gaps in their intended research area, as the present research was designed after discovering the factors that lead to an individual's financial well-being. A thorough literature review was done to find the factors that could strengthen financial behaviour and give an individual a sense of achieving financial well-being.

2.1 FINANCIAL ATTITUDE

Financial attitude is a person's tendency toward his money matters. In other words, it is a mental state and capacity for rational financial decisions. It is the capability to make wise monetary judgments and perceptions about one's knowledge of finance (Shim et al., 2010). Most people avoid financial decisions that do not fit their decision-making patterns. It is only because of a lack of financial attitude (Park & Sela, 2018). An individual's attitude toward finance is his values and perceptions regarding many facets of his finances (Priyadharsini, 2017). These beliefs and values contribute to the development of financial behaviour for decision-making, including the ability to look ahead, the capacity for problem-solving, self-control, and patience (Diacon & Ennew, 2001). Individual's financial attitudes influence the way people save, invest, spend, and manage their finances (Baptista & Dewi, 2021; Stromback et al., 2017). It is a person's frame of mind, sense of judgement, ability to make decisions, and viewpoint about his financial situation. The social learning theory describes financial attitude as the three-way interaction between an individual's conduct, the environment, and internal events (Bandura, 1977). In other words, financial attitude is the values and beliefs that influence an individual's financial behaviour while making decisions, including their capacity for patience, self-control, long-term thinking, and effective problem-solving. It is an individual's way to control one's behaviour through upholding positive financial values, such as the need to save money, plan for the future, be patient when facing financial difficulties and finding solutions, have a risk-taking mindset, and perceived risk and return etc. (Deacon & Ennew, 2001). It can be considered a psychological phenomenon affecting anyone's ability to make sound financial decisions, as numerous studies claim that different financial attitudes influence people to make irrational decisions. Financial attitude is crucial for developing, applying, and operating financial literacy initiatives (Bhushan & Medury, 2014). Financial attitude is an inbuilt quality of humans which is affected by many factors like interest in financial matters, savings, financial worry, deliberate thought, optimism, and financial security (Fünfgeld & Wang, 2009).

Financial attitude helps an individual right from an early age. According to numerous socialisation theories, parents are the primary source of social behaviour and financial attitude. Before starting school, a child's future economic behaviour is greatly influenced by his environment, parents' teaching, and inner feelings (Kalra, 2013). Therefore, parents may teach their children about money and develop good financial habits by modelling how they manage their finances. Children whose parents engage in frequent financial discussions with them are believed to possess superior financial literacy and favourable financial attitudes, leading to more financially responsible behaviour (Amagir et al., 2018).

Since early childhood, parents are the direct and primary source of instruction for a child's financial behaviour and attitude, followed by friends and classmates as an additional choice. The media is the next venue for educating children about financial products (Falahati & Paim, 2011). Some researchers (Lee & Sohn et al., 2017; Shim et al., 2009) claimed that students with a positive attitude toward money are likelier to make wise financial decisions and are inspired to learn more about money to make even better decisions. In contrast, students with a negative attitude toward money are likelier to make poor financial decisions.

A study of undergraduate university students in Singapore was carried out by Lim and Teo (1997). They found that students who had experienced financial hardships were more likely than their peers to use money as a measuring stick, show more significant concern for those in need, and feel more anxious about money. As per the observations of Abelson and Prentice (2014), how people define their relationships with material goods reflects their basic ideas and ideals about money, often impacted by prior experiences. Furthermore, our young generation is facing more money problems due to less financial expertise and financial attitude at an earlier stage. Students report more financial issues due to a negative relationship to money and an inability to handle finances (Hayhoe et al., 2005; Hira & Mugenda, 2000). Today's younger generations face challenging circumstances due to low incomes, stagnant earnings, and the need to pay off education fees. Jiang and Dunn (2013) observed that youths had more significant debt, spending more on credit cards, and paid their bills more slowly than previous generations at the same time. Ibrahim and Alqaydi (2013) suggested that education may strengthen personal financial attitudes while lowering dependency on credit cards. It also noted that financial attitudes and behaviour can influence financial well-being.

Furthermore, in the next stage of life, the compulsion of students to encounter financial problems away from their families will shape this financial mindset (Klontz et al., 2020). Students start aiming to live frugally and lay aside their earnings in case of future spending. The strong desire of students to meet their basic demands based on their income level is the catalyst for the development of financial management behaviour. So, how young workers manage their money is influenced by their attitude towards money. Money usage reflects one's lifestyle (Fazli et al., 2006), and a negative attitude towards money without knowledge might lead to debt.

Apart from students (Marsh, 2006), because of their careless spending, inability to stick to set spending limits and unfavourable financial mindset, people who lack rationality and who do not responsibly handle money issues are unable to demonstrate excellent financial behaviour and are not financially well-off (Listiani, 2017). According to a study by Sugiyanto et al. in 2019, the main factors contributing to negative financial behaviour are living a wasteful and consumptive lifestyle, having a carefree attitude towards money, and making poor financial judgements (Furnham, 1984). Combining the external received knowledge and inner events affects any individual's perceptions and actions. These internal events are any person's financial attitudes and financial management behaviour. The right financial mindset might help to portray and launch improved financial management. In short, the influences of the house, parents, society, social media, etc., shape one's financial attitude (Moschis,1987; Moschis & Churchill, 1978).

Financial attitude varies gender-wise; research has shown that women's levels of financial attitude vary from men. According to the NCFE (2020) report, which examines the state of financial literacy and financial inclusion in India, men and women have distinct financial attitudes. Males are more preoccupied with money than female pupils, while money attitudes of power/spending and retention influence female perceptions (Hayhoe et al., 2000). A rural lady with less education is hesitant to judge credit use, retirement planning, estate planning, insurance, and investment while being aware of these options. Rural women's financial attitudes tend to favour investments with guaranteed returns and safety. They choose to invest for the short term because they believe the long term is too dangerous. The report shows that men have superior financial knowledge and behaviour, whereas women have a more positive attitude toward money (Dwivedi et al., 2015). In another study (Kabeer, 1997), urban women today are becoming more autonomous and believing in their abilities to make money. Middle-class people still desire safe investment options with a good mix of risk and return. High-earning women want to invest more in long-term opportunities. However, generally speaking, female investors choose low-risk or risk-free investments. According to gender theories, socialisation contributes to differences in men's and women's views (Hira, 1997). Families employ many ways to socialise girls and boys financially, such as sheltering girls from financial issues and motivating boys to engage in the family’s financial decision-making process and practice. (Gutter et al., 2009; Newcomb & Rabow, 1999). Later, (Lim et al., 1997) found that men are more concerned with money attitudes' power and anxiety dimensions.

In contrast, the aspects of budget, retention, and assessment are of greater relevance to women. Discrepancies in traditional gender role expectations may account for gender discrepancies in money attitudes. Men have a power/prestige money attitude because they want to be the breadwinners and heads of their families. However, because women are expected to take on home responsibilities, they depend on retention and budgetary money. A review of the research by Prince (1993) indicates that women are more likely to see money as a method of fulfilment that enables them to purchase valuable items, among other things (Lim et al., 1997). On the other hand, gender differences in financial attitudes may result in differences in financial knowledge, which can significantly affect financial behaviour and well-being.

In conclusion, earlier studies on the association between sociodemographic characteristics and money attitudes showed that males and females had distinct beliefs about money due to differing financial socialisation during childhood (Hira & Mugenda, 2000; Lim et al., 2003). Financial attitude acts as a tool to determine whether a particular activity is beneficial, detrimental, or significant, and secondly, to characterise behaviour as delightful, hateful, or pleasant. Therefore, the likelihood that a person will choose positive intention and action to change a specific behaviour is high if they have a favourable attitude toward that behaviour (Webb & Sheeran, 2006). For every individual who wants to live a financially free life, positive financial behaviour is paramount. Mien and Thao (2015) identified three factors impacting financial behaviour: financial knowledge, financial attitude, and external locus of control. Numerous studies have shown that financial attitude significantly influences financial behaviour when accompanied by financial knowledge and awareness programmes (Chien & Devaney, 2001; Danes & Hira, 1990; Rutherford & DeVaney, 2009). Young people have better financial attitude levels and constantly attempt to evaluate the results of their actions and have them under their control. Financial attitude can be improved with pieces of training. Some experiments found that the group with financial understanding demonstrated better financial behaviour than the untrained group (Barling et al., 1996). Therefore, it is recommended in many studies that children must be trained about the outcomes of healthy financial behaviour and possess and apply financial knowledge since childhood. Parrotta and

Johnson (1998) advocated financial attitudes' starring role in influencing financial behaviour compared to financial knowledge. In addition to influencing financial behaviour, financial attitude also aids in making better business decisions for young entrepreneurs (Sugiyanto et al., 2019) . Studies also claimed that a person's favourable attitude toward financial market investing aids in developing his investment intention and helps him achieve his predefined aim of financial stability (Alleyne, 2011; Ali, 2011). Studies found a substantial and favourable link between young people's financial literacy and attitudes about money (Grable & Lytton, 1998; Kasman et al., 2018). According to Ajzen (1991), Decision-makers' actions shape their financial attitudes, which might become embedded in them through their non-economic and economic opinions. However, a negative outlook will hinder their capacity to make wise financial decisions (Shim et al., 2009; Sohn et al., 2012).

2.1.1 Financial Attitude and Financial Behaviour

A person's financial welfare is ultimately impacted by their financial behaviour, which is, in turn, influenced by their confidence (financial attitude) about managing their finances (Serido et al., 2013). Financial attitude and financial knowledge impact an individual's financial behaviour. However, in this combination, financial attitude is given priority as researchers claimed that even if a person possesses financial knowledge, their actual financial behaviour can only be judged by looking at their financial attitude (Yong et al., 2018). Financial attitude also determines how much should be saved, how much should be invested, and how much can be wasted.

The best example of understanding the connection between financial attitude and behaviour can be taken from the usage pattern of credit cards (Hamid & Loke, 2021). Young people frequently live beyond their means of support, even when they have a high degree of financial literacy. It is due to a lack of financial planning and a negative attitude toward money. They must alter their perspective on money to lead a financially free life (Ajzen, 1991). Some other studies (Chien & Devaney, 2001; Danes & Hira, 1990; Rutherford & DeVaney, 2009) found a strong link between having a sound financial mindset and using credit cards wisely.

Financial attitude is a crucial indicator of financial knowledge, which financial education enhances. Numerous research studies (Falahati et al., 2012; Joo & Grable, 2004) have shown that having a positive financial attitude, knowledge, and behaviour leads to financial well-being. The best time to study and understand one's financial attitude is during critical periods like pandemics or wars. Those events significantly impact financial markets and investments and produce variations in people's financial attitudes (Baker et al., 2020). So, financial planners should focus on money attitudes because understanding money attitudes related to investment and savings behaviour allows planners to create more effective plans to improve individuals' financial management skills. So, from the above discussion, it is concluded that despite having financial knowledge, a person's financial behaviour is determined by their financial attitude, which is described as their state of mind, opinion, and judgement towards their resources (De Meza et al., 2008; Indah & Hariasih, 2022).

From the above discussion, the following hypothesis can be framed:

H1: There is a significant relationship between financial attitude and financial behaviour.

2.2 FINANCIAL SELF-EFFICACY

According to behavioural psychology, financial self-efficacy is the conviction that one can effectively perform the work and manage problems (Bandura, 1994). Financial self-efficacy is the capacity to manage one's finances for the future correctly. Financial self-efficacy (Joseph et al., 2017) is the ability to influence an inner knowledge that drives one's financial concerns. Therefore, the capacity to manage one's financial goals depends on each person's internal contentment and level of financial education, which is financial self-efficacy. Financial self-efficacy is also an individual's confidence in their ability to attain financial goals over a long time (Forbes & Kara, 2010). It is the feeling of self-agency and assurance that one can complete any work and handle any difficult financial situation (Bandura, 1994). It is a psychological construct crucial for influencing an individual's decision-making style while making decisions at different periods of life, especially when doing personal financial planning (Farrell et al., 2016). An individual with high financial self-efficacy enjoys the timely fulfilment of his financial goals. Suppose the concept of financial self-efficacy is applied to personal finance. In that case, it suggests that those with high confidence in their ability to manage finances are better prepared to deal with financial difficulties because they believe in solving the issues rather than trying to avoid them.

Financial self-efficacy was generated using concepts from general self-efficacy, and academics such as Dietz et al. (2003) created a tool to test financial self-efficacy. The scale was based on the Pearlin and Schooler (1978) global mastery scale. According to Gecas (1989) and Bandura (1994), the simple concept of self-efficacy corresponds to an individual's self-agency, which is based on a belief that they can finish a specific task and, more broadly, cope with life's issues. Self-efficacy can be manifested in various ways, including an individual's ability to persevere when faced with adversity, negative shock, and stress and withstand pressure from internal or external sources. In other words, individuals have an optimistic or gloomy outlook on the future and think in self-enhancing or self-defeating ways (Bandura, 2006).

Family is the first point for a child to improve their self-worth significantly. According to studies, kids who do not talk about money with their families or do not participate in those conversations make terrible financial decisions, even in ordinary activities. Parents are regarded as a child's first teacher. Parental guidance is the initial stage in helping children develop financial self-efficacy (Glatz & Buchanan, 2015). Studies have also shown that financial education from parents strengthens financial self-efficacy and develops their capacity to make wise financial decisions. Therefore, parents who provide their children with attentive financial guidance can alter their perspective and assist them in gaining self-assurance to make wise financial choices.

A variety of personality attributes, such as optimism or pessimism, how bravely one handles problems in life, and one's attitude toward self-motivation or self-debilitation, can illustrate financial self-efficacy. Anyone who exudes confidence will also apply it to their financial decisions. In short, financial self-efficacy is linked to the mind, motivation, and execution.

The financial self-efficacy level is different in different people. High self-efficacy women are more likely to save money, buy a home, and invest money but are less likely to use credit cards or take out personal loans (Anastasia & Lestaritio, 2020). However, compared to men, women show less confidence about their financial situation, such as debt-related products like credit cards and loans (Furreboe & Nyhus, 2022). According to studies, financial self-efficacy plays a significant part in explaining how women handle their finances. Furthermore, if financial literacy programmes are made available to women who score highly on financial efficacy, their value and usefulness will be increased.

When someone develops financial self-efficacy, financial knowledge and a quick-thinking process help him act in ways that significantly influence their financial behaviour and well-being (Anastasia & Lestaritio, 2020). An individual is motivated to make sound financial decisions when they have financial self-efficacy. Those with low FSE scores are more careless when making financial judgments and planning for upcoming financial decisions than those with high self-efficacy scores. In other words, low financial self-efficacy impacts a person's drive and ambition levels, which is significant for preparing for future financial events (Dare, 2023)

A person who possesses high self-efficacy is flexible. His readiness to accept situations rather than avoid them increases his chances of success (Bandura, 1977). It affects one’s motivation, which in turn influences the achievement of financial goals. As per social cognitive theory, self-efficacy can be used to examine and alter a person's financial behaviour. Financially self-aware people save more and avoid unnecessary purchases (Scholz et al., 2002). When faced with challenging financial circumstances, someone with a high level of financial self-efficacy is more successful than someone with a low level of efficacy, and the former always has preparations in place to handle such problems (Park & Folkman, 1997). Counsellors or educators utilise the Financial Self-Efficacy Scale with young clients, which affects their capacity to reach their financial objectives. They can understand that combining financial self-efficacy with middle income and advanced age leads to higher levels of savings. Still, when age and money are controlled, it turns out that 60% of people with poor self-efficacy would prefer to save. Thus, it suggests that older and middle-class individuals can be encouraged to improve their savings levels by raising their financial self-efficacy.

When a person has financial self-efficacy and financial knowledge, his confidence and investment self-efficacy increase; financial knowledge boosts his confidence to invest in ways that will enable him to realise his long-term goals. Due to their low level of financial self-efficacy, women typically invest in less risky assets with lower returns in typical investment scenarios. Therefore, they make less difficult decisions than males do. However, when they receive adequate financial education and work as financial professionals, women make the same bold decisions as males. Therefore, if women receive the necessary training and motivation, the gender gap in financial self-efficacy scores and financial decision-making capacity will disappear even in risky environments.

Undeniably, investors can invest and profit more from the stock market if they have better control over their ability to make sound financial decisions because risk attitude and capacity boost financial attitude and encourage stock market investment. As opposed to investors with low financial self-efficacy scores, it has been observed that investors with high levels of financial self-efficacy typically sense long-term control over their invested amount. Investors who wish to play it safe will invest in bonds and FDs, but if financial self-efficacy is combined with a higher risk-taking capacity, they will participate in the stock market (Keller & Siegrist, 2006). Additionally, it has been discovered that those with high self-confidence in managing money are more inclined to deal with complex financial situations than try to avoid them. Such conduct increases the likelihood of task completion and favourable money management, thus making people more likely to succeed.

2.2.1 Financial Self-Efficacy and Financial Behaviour

Self-efficacy positively and significantly impacts financial behaviour (Appau, 2019). Investors should have greater financial self-efficacy to reduce financial debt, difficulties, and stress, resulting in higher savings and financial happiness (Lapp, 2010). Albert Bandura established self-efficacy as a component of social learning theory, which was later enlarged into social cognitive theory (Ashford & LeCroy, 2010). The concept of self-efficacy is central to social cognitive theory, which posits that a higher level of efficacy is required for an individual to finish their action or objective (Locke & Latham, 2002). According to financial self-efficacy, an individual with a high level of financial self-efficacy will be more motivated, which will affect their performance. Thus, an individual's behaviour is influenced by how confident they believe they are and how well they can complete a task (Bandura, 1982). Irrational financial judgements are frequently the result of a lack of financial literacy, but they must be supplemented by financial self-efficacy for investors to make prudent financial decisions. Financial self-efficacy, financial literacy, and financial behaviour were found to have a modestly positive relationship (Amagir et al., 2020). Financial literacy was also discovered to impact financial behaviour, mediated by financial self-efficacy significantly. Previous studies have shown that financial inclusion and self-efficacy significantly affect the credit behaviour of BPL households (Joseph et al., 2017). Investigations have also shown that financial education, counselling, and skill development courses may benefit people without instilling a good sense of self-efficacy (Danes et al., 1999). However, knowledge and skills gained through assistance activities are useless unless applied (Lown et al., 2015). Financial self-efficacy is important since information is unlikely to lead to action unless one believes they can achieve a financial objective (Danes & Haberman, 2007).

Aside from individuals, the collective household's financial efficacy is also critical for selecting a saving tool and choosing the proper financial behaviour. Saving instrument choices are impacted by race, dependence ratio, financial knowledge, education, and dwelling geography (rural or urban). In particular, more financially efficient households are more likely than non-banking-based devices to use bank-based or lower-risk holding mechanisms.

Self-efficacy has been connected to financial decision-making, and it might be claimed that people who are more confident in their abilities to manage their finances and spend wisely are more likely to have financial difficulties (Furrebøe & Nyhus, 2022). To put it another way, they see obstacles as "challenges to overcome" rather than "threats to be avoided" (Bandura, 1994; Bandura et al., 1987; Farrell et al., 2016). Individuals with a positive outlook are likelier to succeed and get incredible financial results. It was incorporated as an independent variable in a standard economic behaviour model to investigate its importance in anticipating analysed behavioural outcomes. Several research publications have studied the rationale value of concepts such as 'investment self-efficacy' (Forbes & Kara, 2010), women's financial behaviour (Farrell, 2016) and 'entrepreneurial self-efficacy' (Kickul et al., 2008). According to the results, financial self-efficacy may influence positive individual economic outcomes (Dare et al., 2023). Based on the discussion above, a hypothesis can be put forth:

H2: There is a significant relationship between financial efficacy and financial behaviour.

2.3 FINANCIAL KNOWLEDGE

Financial knowledge is a person's understanding of the financial markets, financial system, and how it functions. It is a crucial component of one's financial capability. It is an internal construct that describes a person's comprehension of the macroeconomic and microeconomic environments (Lusardi & Mitchell, 2014). It is a feeling of assurance and command in handling financial affairs. Financial knowledge is also considered a person's capacity to comprehend loans, savings, and budgeting. It includes understanding the effects of inflation, numeracy, and risk diversification. In other words, Huang et al. (2013) state that the capacity to manage income, savings, and expenses very safely is the person's capacity for developing a particular form of talent known as financial knowledge. Financial knowledge is of utmost importance to help one make wiser financial and investment decisions, and it also allows investors to check the viability of financial markets. People's decision-making abilities improve by using critical thinking and problem-solving techniques and understanding key concepts of financial knowledge and their applications. Better and goal-oriented financial decisions can be appropriately made by an individual when he possesses financial knowledge (Chen & Volpe, 1998).

Financial knowledge has been investigated using subjective (self-assessments) and objective measurements (test scores). Subjective measurement reflects a person's level of confidence about financial investments. Perceived financial knowledge is also known as subjective financial knowledge. It is examined by asking participants to score their level of overall financial understanding, which has additionally been discovered to have a favourable effect on financial behaviour (Lusardi & Mitchell, 2017). Subjective financial knowledge is assessed by asking respondents about their beliefs and knowledge about financial problems and how to make financial decisions. There is a slight distinction between perceived financial knowledge and overconfidence. It is to be taken care that overconfidence may result from an imbalance between actual and perceived financial information. Still, the contribution of subjective knowledge (Lusardi & Mitchell, 2017) combined with financial confidence and concepts helps make better decisions. At the same time, objective measurement exposes a person's knowledge of interest rates, inflation adjustments, present value, and future value of money. Objective financial knowledge is evaluated by the responses to questions about savings, inflation, risk, investment, and insurance, among other topics, and it has a strong and favourable relationship with one's financial behaviour (Hilgert et al., 2003). No matter how much objective financial knowledge a person has, subjective financial knowledge is proven to be positively connected to saving and investing. The accumulation of emergency finances, short-term savings, and expenditures are all tied to subjective knowledge (Allgood & Walstad, 2016).

The majority of financial programmes provide the practice of objective financial knowledge. However, according to the research of Hadar et al. (2013), educational programmes must be designed to have content like objective knowledge combined with subjective financial knowledge (also known as one's confidence in one's ability to handle finances on one's own). Because it can be challenging to make financial decisions sometimes, and good deals can get stuck due to perceived knowledge gaps. Subjective financial knowledge is also critical because sometimes people doubt their ability to make decisions even when they have sufficient knowledge about financial concepts. As a result, they postpone making the decision. Subjective financial knowledge is proven to have a significant and even more enormous influence on financial behaviour than objective financial information (Allgood & Walstad, 2016;

Robb & Woodyard, 2011). It makes a person more capable of making long-term financial decisions (Parker et al., 2012).

Financial knowledge is part of financial literacy, and the concept of financial literacy can be viewed from both a limited and broad perspective. In a more overall sense, it encompasses both financial knowledge and financial behaviour. Still, in a narrower sense, Hilgert's concept of financial literacy only refers to financial knowledge, an individual's capacity to process, evaluate, and analyse economic data to make informed decisions about their financial situation (Lusardi & Mitchell, 2014). Financial knowledge improves one's proficiency and assurance in handling home expenses and strengthens one's financial behaviour (Bandura, 2006). Enhanced levels of financial knowledge have been linked in studies to favourable outcomes in cash-flow management, retirement savings, and cash-n-credit management (Tang et al., 2016). So, financial knowledge is passed on to children from their parents (Huang et al., 2013). It was discovered that parents with high levels of objective financial knowledge have an 8.7% larger likelihood of their children having savings accounts than parents with lower financial awareness. Education programmes are essential at the school level to provide students with a fundamental grasp of saving, managing credit, paying interest, and the effects of inflation. According to Chen and Volpe (1998), young adults with less financial understanding tend to have negative ideas about money management and make poor financial judgments, which can result in financial distress. According to a study by Tang et al. (2016), 70% of millennials gave themselves very high ratings for assessing their perceived financial knowledge.

2.3.1 Financial Knowledge, Financial Efficacy, Financial Attitude and Financial Behaviour

Literature on financial knowledge also highlights its relationship with financial attitude, financial efficacy and financial behaviour. Financial knowledge is consistently associated with good financial behaviour, especially in studies done in America (Allgood & Walstad, 2016). These behaviours include retirement planning, timely mortgage payments, timely credit card payments, credit counselling, and efforts to maintain low credit card costs (Allgood & Walstad, 2016; Huston, 2012;

Lusardi & Mitchell, 2014; Van & Rooij, 2016). High levels of objective financial knowledge are also linked to increased returns (Chu et al., 2017), participation in long-term planning activities like saving and investments, and decreased use of expensive financial services like pawn shops (Robb et al., 2019). Robb and Woodyard (2011) studied how satisfaction, demographic factors, objective knowledge (investment rates, financial concepts), and subjective knowledge (financial confidence, retirement savings, absence of overdrafts, and risk management) impacted credit score, credit payments paid off, (financial confidence), absence of overdrafts, and risk management (Lusardi & Messy, 2023). This study discovered that objective financial knowledge is one of the critical factors in achieving favourable investment results but is not the only factor for better financial behaviour, as subjective knowledge is. Poor financial behaviours, on the other hand, stem from a lack of financial awareness.

Studies done in UK households (Disney & Gathergood, 2013) show that people with credit borrowings have significantly worse financial knowledge than those who do not have credit borrowings. People with little financial knowledge frequently had expensive debt, knew little about financial terms, and lacked confidence in their financial decisions. Financial knowledge is essential in increasing credit scores because it is related to all financial decisions individuals make, including using credit cards, and banks examine credit scores before granting any credit. It makes it possible for someone to make choices based on their financial situation. According to Hilgert et al. (2003), financial education is positively correlated with the likelihood of prompt bill payment, saving, investing, budgeting, and creating financial objectives. A person with little financial awareness will make terrible financial plans. A household with less financial literacy cannot accumulate money for the future, cannot invest in the financial markets, and commits numerous financial errors (Alessie et al., 2011). As per Yoong (2011) and Babiarz and Robb (2014), previous studies have shown that having outstanding financial education increases one's likelihood of saving money for emergencies by 8%. More correct responses to exam-style questions indicate a higher level of financial knowledge, which is tested objectively. Combining objective and subjective financial information showed highly positive financial behaviour and well-being results (Allgood & Walstad, 2016).

From empirical evidence, Cohen and Young (2007) opined that a critical factor influencing behaviour regarding insurance adoption is the knowledge of finances. Furthermore, Tustin (2010) discovered self-reported impacts of financial awareness training on saving behaviour after using three survey questions to examine the program's influence on savings in the Limpopo area of South Africa. Similarly, financial knowledge increased deposits in Chilean private pension plans (Landerretche & Martínez, 2013). As a result, the World Bank (2008) claims that financial knowledge contributes to raising the standard and efficiency of financial services. People who are impoverished now more than ever need a certain level of knowledge about finances to compare and analyse financial items, including bank accounts, savings accounts, credit and loan choices, payment methods, investments, and insurance. According to Holzmann's (2010) explanation, impoverished households in developing nations may find it easier to create a savings strategy if they receive financial literacy training and practical experience.

Some studies have also examined the effect of self-efficacy and overconfidence, which is observed when perceived financial knowledge is significantly greater than perceived outcomes (Chu et al., 2017; Robb et al., 2019). Through risky investments and the use of expensive financial services, this overconfidence gives understanding results. Because of their overconfidence, households invest directly in stocks rather than diversified mutual funds. So, overconfidence, combining financial knowledge and financial efficacy gives better returns. At the same time, most financial literacy programs concentrate on imparting financial knowledge, whereas some creative programmes experiment with promoting financial self-efficacy (Loke et al., 2015). High financial self-efficacy, which boosts people's confidence in their financial capacity, is the reason for the discrepancy between perceived and actual financial knowledge. Despite having little financial education, these people exhibit high confidence in their financial ability. Perceived efficacy is more important than actual skill in self-efficacy. Self-efficacy often contributes to skill utilisation even when a person does not have a high degree of skill since it makes a person perform better (Bandura, 1993). Combining objective knowledge with this confidence to invest allows people to apply their financial talents quickly.

Financial knowledge is beneficial if given in early childhood. Borden et al. (2008) discovered that students' attitudes toward responsible financial behaviour are enhanced by financial knowledge. If the government wishes to raise the literacy level among generations (Bhushan & Medury, 2014), it should also put more effort into influencing national' attitudes. People can only truly benefit from national welfare programmes (Ajzen, 1991) if they have a positive attitude toward money. Financial knowledge positively impacts financial attitude, leading to making wiser financial decisions (Ajzen, 1991). Ibrahim and Alqaydi (2013) found the influence of financial attitude, knowledge, and behaviour on financial well-being. Students with a good attitude toward money try to acquire formal financial education, which raises their level of good financial behaviour. Alternatively, a bad attitude about money makes it harder to make wise financial decisions (Shim et al., 2010; Sohn et al., 2012). Women scored higher in financial attitude than they did in financial knowledge and financial behaviour, according to the gender gap. According to Grable and Rabbani (2023), a person with a low-risk tolerance level and financial attitude has a lot of trouble managing their money and experiences lifelong dissatisfaction. The persuasive influence of financial information on financial attitude and behaviour was found by Dhar and Zhu in 2006, and they concluded that financial knowledge is necessary to make financial decisions. According to research by Shim et al. (2008), financial education at home and in the classroom improves people's attitudes and behaviours about money. In other words, financial knowledge aids in the growth of understanding, which is crucial for developing a positive financial attitude and behaviour. It has been discovered that those who are financially literate and skilled tend to view financial transactions favourably (Capuano & Ramsay, 2011).

Studies also found that gender always had an impact. Regarding financial understanding, men always perform financially better than women, scoring well in financial attitude and behaviour. Women are more worried about the future and believe saving for the future is essential than consuming now. Ibrahim and Alqaydi (2013) concluded that personal financial attitude is improved through financial education and practice, which reduces dependence on credit cards.

A poor person's material well-being can be improved by accessing financial services and practising sound money management. According to Xu and Zia (2012), financial literacy initiatives and programmes increase the use of goods like insurance and savings accounts in developing nations where most of the populace lacks access to formal financial services. Raising consumer knowledge and awareness of financial products and influencing consumer behaviour like saving and budgeting encourages saving. Training in understanding finances improves financial knowledge, affecting the financial behaviour of low-income households (Jappelli, 2013). According to Holzmann (2010), the use of vital financial services by the impoverished can be encouraged, particularly in developing nations, if they can demonstrate appropriate financial behaviour, such as creating a budget, making plans, and saving for retirement. Financial knowledge improves a variety of behaviours essential for low-income individuals in developing nations, including savings, insurance, financial planning for retirement, involvement in the financial system, ownership of bank accounts, investments, debt management, and financial practices (Braunstein & Welch, 2002). According to Arya (2018), individual behaviour determines due payments on his credit account, which may be for thirty, ninety, or more days. Failure to repay loans indicates a lack of cash flow management skills or inattention on the part of the borrowers. From a different angle, financial product designers like Thaler and Sunstein (2008) have argued for creating tools to encourage people to adopt better financial habits while preserving their right to make decisions. As a result, education has been embraced in developing nations to directly impact low-income households' financial behaviour regarding the financial products provided by official financial institutions (Abdullah & Chong, 2014). According to researchers such as (Lusardi & Mitchell, 2014; Lusardi et al., 2009; Meier & Sprenger, 2013), lower levels of knowledge about finances are associated with a lower likelihood of retirement planning, lower stock market involvement, lower rates of resource accumulation, higher rates of alternative financial services usage, and elevated debt levels (Dewi et al.,2023). Lusardi and Tufano (2009) observed that people's ability to make sound financial choices is crucial for building firms' finances, which may lead to more effective resource allocation and excellent financial stability.

From the above discussion, the following hypotheses are framed:

H3: There is a significant effect of financial knowledge on the relationship between financial efficacy and financial behaviour.

H4: There is a significant effect of financial knowledge on the relationship between financial attitude and financial behaviour.

2.4 FINANCIAL BEHAVIOUR

Financial behaviour controls a person's savings, expenses, and budget (Perry & Morris, 2005). In contrast, as per Xiao and Porto (2019), the human activities connected to money management, such as savings, cash and credit, are regarded as financial behaviour. In other ways, it is how a person manages his finances, including cash management, budgeting, credit use, and saving behaviour (Powell et al., 2023). Consumer economists define financial behaviour as the desired and advantageous behaviour to enhance an individual's financial well-being (Prakash et al., 2022). Therefore, a person's capacity for managing financial resources can be used to assess his capacity for managing other types of resources, including his timing, which may have a good knock-on effect in different spheres of life, like academic and professional success (Fan & Henager, 2022). Financial behaviour is also a person's capacity to set financial objectives, make plans for the future, and make wise financial judgments when investing in a range of financial goods and services (Garoarsdottir & Dittmar, 2012). According to studies by the Financial Planning Standard Board (2013), anyone who can undertake proper financial planning should be able to handle debt, savings, emergency money, asset diversification, retirement planning, and understanding taxes. How well a family or individual manages their financial resources, such as savings, budgeting, insurance, and investments, is another definition of financial behaviour (Hilgert et al., 2003), and how well a person manages his money can be inferred from how well he handles his debt, savings, and other costs. According to studies (Choe et al., 1999), a person's financial behaviour is an essential factor in his economic growth and progress towards his financial goal achievement. Following the 2008 financial crisis, researchers have placed a strong emphasis on the examination of financial behaviour and attitude to forecast future economic and financial developments done by investors because behind every investment, a person's financial attitude and behaviour works and that changes frequently as per the changing economic conditions (Danso & Adomako, 2014). Numerous types of research on young adults have been conducted regarding their financial behaviour during the period since they needed to make critical financial decisions at this age (Sharif et al., 2020).

A rational user of money practises responsible financial conduct, which includes earning income, managing and restricting spending, investing, and paying bills on time (Lajuni et al., 2018). Young people with high financial behaviour scores can plan better than the low scorers. According to studies, conscientious and rational people are highly good at exercising self-control, which enables them to change their borrowing and saving habits more readily (Warneryd, 1996). On the other side, it is found that materialistic people suffer from depression, anxiety, stress, and low self-esteem, and worldly people find their happiness in things only temporarily and do not close the gap between what they need to save and what they can save for the future (Garoarsdottir et al., 2009; Otero-Lopez et al., 2011). Most of their income is spent on making poor choices about purchasing goods, leading to low and insufficient savings. (Dittmar, 2005; Richins, 2011). Materialists typically try to avoid learning about financial management because it will expose and deter them from spending too much money and their behaviour of collecting things (Garoarsdottir & Dittmar, 2012).

Researchers found a relationship between perceived behavioural control, financial self-efficacy, and controllability (Xiao et al., 2011). Financial efficacy helps an individual to have control of his finances. Risky spending behaviour is inverse to financial efficacy, directly or indirectly (via intention to behave financially responsibly).

Many researchers also studied the financial behaviour of school students. They found a strong link between students' financial well-being and their money-management skills (financial behaviour) and aptitudes (attitude) (Chan et al., 2012). It is discovered that students who manage their money are more interested in updating their financial knowledge, attitudes toward debt, and working efficiency. Students who handle their money better typically have fewer debts and better financial health.

Any person's financial behaviour might be classified as positive or negative based on their actions. Making emergency savings provisions, managing cash, planning long-term goals like retirement plans, operating credit, conducting credit management, controlling risks by buying insurance, and creating estate plans are all examples of good financial behaviour. Bad financial habits include avoiding money conversations, relying on employer-sponsored pension plans, and being a spendthrift (Woodyard, 2016).

The theory of planned behaviour (TPB) aids in comprehending and forecasting human financial behaviour. One’s behavioural intentions can anticipate one's behaviour. Perceived behavioural control, unfavourable attitudes toward the target activity, and subjective norms are the three components that impact behavioural intentions (Ajzen & Fishbein, 2000; Ajzen, 1991). At the same time, the Trans-Theoretical Model (TTM) of behaviour change assists people in developing positive behaviours and altering their bad ones. There are many stages of financial behaviour, and a person can achieve positive behaviour and eliminate undesirable adverse financial conduct through various stages. Much research into human financial behaviour is done to understand the different stages and factors that can influence and shape improved financial behaviour.

Prochaska et al. (1994) described three different sorts of financial behaviour in challenging life circumstances: destructive financial behaviour, sound financial behaviour stimulation, and stabilising behaviour. Financially destructive behaviours include accruing debt, paying bills late, overspending and depleting emergency funds. Some interventions, such as financial awareness and knowledge, can alter these behaviours. In that case, this may result in decreased destructive behaviour and a higher financial well-being. Alongside the intervention, good financial habits like saving, budgeting, retirement planning, and on-time bill payment are also encouraged. A stabilising effect from these interventions is also beneficial in highly susceptible and essential life circumstances like unemployment, chronic disease, divorce, personal bankruptcy and retirement. Negotiating solutions to these problems can assist in keeping them from becoming enduring issues and has a significant and positive effect on the financial well-being of society. Studies in this area showed that good financial habits increase a person's financial well-being (Prochaska et al., 1994). The impression of an individual's financial well-being can be judged by his financial behaviour in saving, compulsive buying and budgeting (Joo & Grable, 2004; Shim et al., 2009).

Psychological characteristics like optimism and self-control impact people's financial behaviour, such as saving for the future, which results in financial health Stromback et al. (2017). According to planned behaviour, subjective norms, perceived behavioural control, and unfavourable attitudes toward the targeted conduct influence a person's intention.

2.4.1 Financial Behaviour and Financial Well-being

Talking about the impact of financial behaviour has a favourable effect on one's financial wellness in both circumstances since financial well-being can be objective and subjective and tied to one's level of inner satisfaction with one's financial holdings (Drentea & Lavrakas, 2000). The same is true with college students. Numerous studies on college students have shown that maintaining good financial behaviour can also positively affect other areas of life (Montalto et al., 2019). By managing debts responsibly and providing inner satisfaction, good financial habits can help college students lower their stress levels, which allows them to succeed academically.

Lack of sound personal financial management can result in various detrimental health repercussions, including excessive spending and late or non-payment of bills. Anxiety and worry will result from this circumstance (Drentea & Lavrakas, 2000). Second, because insurance is unavailable, those who do not insure themselves typically pay significant medical expenditures out of pocket. It places them under a tremendous financial burden. Their families usually do not adhere to the advised diet, periodic screening exams, and savings recommendations because of their illogical behaviour regarding health insurance and money (O'Neill et al., 2005). They get more serious health problems as a result of this. Positive financial behaviour also helps to alleviate stress, which improves physical health.

Many studies by renowned researchers have been done in this field, including (Xiao et al., 2011) and others (Shim et al., 2009) have attempted to investigate the relationship between three factors—perceived behavioural control, subjective norms, and attitudes, specifically whether these three also have a positive impact on financial behaviour. Perceived behaviour is the ease or difficulty of carrying out any behaviour that reflects prior experiences or potential future hurdles. The evaluation of social pressure to behave a certain way is subjective norms. Finally, attitude refers to a person's perspective on engaging in a particular behaviour (Ajzen, 1991). As a result, it was discovered that perceived behaviour is strongly and positively connected with financial satisfaction, which is a sign of financial welfare (Shim et al., 2010), intention, and sound financial behaviour (Shim et al., 2010).

From the preceding section, it is evident that financial activity has a substantial association with financial well-being. This association is strengthened by making sensible judgements about the three most essential factors: a proclivity to live beyond one's means, risky borrowing/credit use for daily living expenses, and a proclivity to save and plan for the future (Delafrooz & Paim, 2013; Gutter & Copur, 2011). These aspects demonstrate how financial activity affects a person's ability to achieve financial stability. Furthermore, it is well-established that maintaining a healthy spending-savings ratio is highly crucial to a person's long-term financial stability and overall well-being (Van Praag et al., 2003).

Many times, financial stressors affect financial behaviour. At this time, some credit counselling and debt management programmes can help that individual restore and enhance his financial behaviour. It can ease their financial anxiety and assist them in making wiser financial decisions, ultimately leading to financial security in their lives (Bagwell, 2000). In his study, Bagwell (2000) discovered that after participating in a credit counselling and debt management program for a year, respondents' health had improved, and their financial worries decreased.

When the association between financial behaviour and the financial well-being of college-going students was examined, it was discovered that those who demonstrated good money management, saved money, and used credit cards responsibly achieved financial well-being (Xiao et al., 2009), leading to future overall well-being. This study also discovered that good financial behaviour reduces financial stress, enables students to make wise financial decisions, and promotes financial security and satisfaction. Hayhoe et al. (2000) discovered that students with good credit card management can reduce their financial stress and the adverse effects of decreasing financial well-being. Non-rational financial behaviour also affects an individual's financial pleasure and freedom (Brüggen et al., 2017).

2.5 FINANCIAL INCLUSION

Financial inclusion is making a wide range of financial services and products available in an adequate, affordable, and timely manner. It is beneficial for increasing the use of existing products by all societal segments. It also contributes to financial education and awareness, encouraging social and economic inclusion and individual and societal financial well-being. Financial inclusion improves the living conditions of society's marginalised, poor, and vulnerable groups by giving them easy access to credit. According to the RBI, financial inclusion is a strategy for ensuring that everyone in society, particularly the poor, weaker, and low-income groups, has access to the necessary financial products and services at a price they can afford and in a transparent way. In other words, financial inclusion is the deliberate expansion of access to and use of financial services and products such as insurance, remittance to big groups, payment, savings, and credit (Aduda & Kalunda, 2012). It is also a market intervention approach that assists in overcoming the various market frictions that prevent markets from operating in favour of underprivileged groups. As per the World Bank (2013), every person, home, and business that uses financial services is considered financially included.

Financial inclusion aims to make financial services available to a sizable portion of the country's underserved population to spur economic growth. It is a state of the economy where no one is prohibited from enjoying essential financial services (Sarma & Pais, 2011). Financial inclusion creates an environment in which a person has complete access to financial services from national financial institutions in a manner that is comfortable, timely, affordable, and informative while maintaining their full respect and dignity. Financial inclusion is more than just opening savings accounts and purchasing insurance or credit; it also includes choosing from among a selection of products, being aware of those products, and being aware of alternatives to traditional financial services.

Financial inclusion is a successful method for a nation's overall economic progress. Numerous studies have shown that financial inclusion reduced income inequality and poverty in a country, but market discipline and limits had the reverse impact (Kabakova & Plaksenkov, 2018). Access to financial services substantially impacts the economy's growth at the macroeconomic level (Galor & Zeira, 1993), but lack of access can result in poverty traps and income disparity. Numerous studies also highlighted the benefits of expanding bank branches, more ATMs, and easier access to funds. All of this results in higher levels of saving, more investments, the empowerment of women, and higher levels of consumption across the nation (Bachas et al., 2018). Easy access to finance benefits small business owners and individuals, and the most significant part is that inclusion policies are reaching the farm sector in the form of insurance, which covers agricultural risk against weather, pests and many more (Ozili, 2021).

Governments of most nations throughout the world have made financial inclusion a priority. Due to these policies, people are now eager to use the country's low-cost financial services. In this scenario, governments must launch awareness efforts to make the public aware of the value of financial services. The World Bank introduced this idea in 2000, intending to lower the cost of various financial services such as insurance, credit and savings while ensuring the choice and accessibility of financial options and providing stability and continuity in industrial investments for economic growth. With the advent of mobile phones, these programmes gained momentum and changed India's traditional banking system's operational model.

Many nations now place a high priority on the financial inclusion system. It has enabled the country's economy to proliferate by assessing financial services, mobilising and directing savings toward industrial needs, and simultaneously ensuring a decrease in credit from unreliable and expensive sources (Sharma, 2010). At the elementary level, financial inclusion makes sure that everyone is required to have a bank account. According to Global Findex data from 2021, 20% of the global population still lacks a bank account. These difficulties can be overcome by implementing appropriate rules and increasing account ownership nationwide. One of India's most significant initiatives to advance FI's goal of ending poverty was the Jan Dhan Yojna. FI encourages risk-taking and investing, which benefits people in times of need and asset accumulation. According to (Fungácová & Weill, 2015), numerous problems, including a lack of documentation, a poor credit score, a lack of financial literacy, and weaknesses in the financial system, serve as hurdles to FI programmes.

FI impacted income levels, understanding of financial products from various sources, and knowledge of self-help groups (SHGs). Bhatia and Singh (2019) opine that PMJDY significantly affects women's political, economic, and social empowerment. They also discovered that FI programmes specifically empower women. Gupte et al. (2012) emphasised the significance of population, income, and literacy in determining the degree of financial inclusion. It is a well-known fact that people in rural areas prefer to borrow money from MFIs rather than banks because the latter offer more flexible and specialised services. Still, the indigenous people of Orissa, where 70% of the population lacks bank accounts, must be considered.

From the above discussion, it is evident that financial inclusion creates an environment where all people of the nation have access to affordable financial products. It is also found that financial inclusion was boosted by per capita income, the presence of the rule of law, and demographic trends.

Despite much research, no simple method for determining financial inclusion exists. As per the literature, financial inclusion refers to the accessibility of high-quality services, regular service use, uniform accessibility of financial services, and potential improvement in users' welfare. Lack of financial inclusion affects all nations, regardless of social standing, economic growth, or income level, and is not just a concern for the poor and disadvantaged socioeconomic groups. Studies found various features of financial inclusion, such as wealthy, educated, urban, and employed persons having a greater possibility of being financially included (Allen et al., 2016). Financial inclusion is high in middle-aged people who took financial management courses in school and can save more money (Bernheim et al., 2003), making them more financially satisfied. Financial inclusion raises the income of people experiencing poverty, which may eventually result in greater financial pleasure (Bruhn & Love, 2014).

In contrast, people who do not participate in the financial system are imprisoned in poverty, which lowers personal financial resilience and has an impact on national growth because those who are excluded must ask for immediate assistance from family members or take out expensive loans from money lenders (Akram & Hussain et al., 2008). Authors have tried to study different parameters to measure financial inclusion (Akram & Hussain et al., 2008). Financial inclusion is studied from two angles: the demand side (number of saving accounts, amount of financial products purchased) and the supply side; it is studied with the given parameters like banking penetration (no. of bank accounts as a proportion of the population), availability of banking services (no. of banking points of service per 1000 population), and usage of the banking system (credit to GDP and deposit to GDP) etc. As per some other studies, the supply side of financial inclusion is measured from the angle of access, utilisation, ease, and cost of transactions. Bhanot et al. (2012) explored the demand side of financial inclusion in the northeastern states of India. According to Nandru et al. (2016), income and education level have the most significant effects on bank account ownership on the demand side among demographic characteristics.

Some other parameters utilised in numerous further research include geographic and demographic penetration, depositors and borrowers, accessibility, availability, and utilisation dimension, among others (Shahulhameedu, 2014). Additionally, CRISIL calculated the inclusion index by considering variables like credit penetration, branch penetration and deposit penetration.

2.5.1 Financial Inclusion, Financial Behaviour and Financial Well-being

As financial inclusion assesses various financial products at affordable cost, this little financial awareness helps people save and invest for their current and future needs. Nandru (2021) studied street sellers and found that incorporating street vendors into the financial system provides them financial security. They can give the children a suitable education, promote investment activities, create jobs, raise income, and enhance the standard of living, health status and consumption levels. According to (Zhang & Posso, 2019), the financial inclusion initiatives in the nation help the impoverished people who are financially excluded and have little to no means of coping with upcoming financial shocks (which raises the level of poverty). Access to financial products and services, including insurance, bank accounts, and credit, has a favourable impact on one's financial well-being. People with lower inclusion levels typically have poorer financial health because they cannot spend their money correctly and obtain the necessary returns (Banerjee et al., 2015).

Similarly, (Zemtsov & Osipova, 2011) believe that financial inclusion allows people to gain income and assets, which improves their financial stability. The task of financial inclusion is extensive. It should be considered as offering financial goods such as bank accounts, overdraft facilities, credit, investment products, payment services, micro-insurance, and social pension plans. Financial inclusion entitles people to use necessary financial products tailored to their needs. Using such items increases financial understanding and confidence in managing personal finances (Ozili et al., 2023). We contend that financial inclusion enables people with low incomes to manage their finances and that such empowerment fosters a sense of financial effectiveness in recipients of such inclusion schemes. A combination of financial self-efficacy, financial knowledge, and financial inclusion schemes helps them become goal-oriented, optimistic, forward-looking and prompt to make wise financial decisions (Robb et al., 2015). These wise decisions help them fulfil their goals quickly and feel financially satisfied. Financial inclusion is not an end; instead, it enhances risk-taking behaviour. People can better manage potential risks When they have a safe location to save money and access needed credit (Hussain et al., 2019).

According to the United Nations Development Programme (UNDP) (2023), 16.4% of Indians will still live in multidimensional poverty in 2022. To pull individuals out of poverty, policymakers must include various financial products in the financial system. These efforts will be helpful to reduce poverty and improve household welfare. Kim et al. (2018) state that debt and credit management programmes can assist people in getting out of debt and, in turn, help them achieve financial health.

Bhowmik and Saha (2013) ‘n’ Rai and Saha (2010) discovered that financial inclusion significantly affects the financial well-being of individuals by strengthening their financial behaviour. Another study by Swamy (2014) showed that involvement in FI programmes aids households in increasing their incomes and building wealth, which lowers the level of poverty. Duvendack et al. (2011) explored how microfinance affects the welfare of low-income families and discovered that borrowing from MFIs significantly impacted household health, education, income or consumer expenditures, and subjective well-being. Poor homeowners' savings and asset investments can be critical in developing resiliency (Allen & Panetta, 2010; Allen et al., 2021). Chakma's (2014) study on impoverished Marma households revealed that people residing in the Chittagong Hill Tracts dramatically changed their financial behaviour (savings and investing) after joining the village savings and loan association. It helped them cope with illness and crises, enabling them to invest in income-generating activities for survival and minimised shock effects (Hussain et al., 2020).

Financial inclusion is undoubtedly helpful in reducing poverty; according to numerous research studies, insurance substantially impacts a person's life by protecting against future risks than access to banking and savings accounts (Collins et al., 2023). Financial inclusion instruments like insurance assist them in handling financial shocks in the event of the earning member's death or hospital expenses, and banking accounts help them develop the habit of saving for future requirements rather than taking out expensive loans (Mehry et al., 2021). Allen et al. (2016) discovered that more affluent, educated, older, urban inhabitants, employed, married, or separated individuals were likelier to have a formal financial institution account. Fungácová & Weill (2015) discovered that more affluent and educated persons are more likely to be financially involved. Bernheim and Garrett's (2003) foundational study on the impact of financial education discovered that middle-aged adults who attended a personal financial planning programme in high school saved more money than those who did not. It supports the idea that financial education makes individuals concerned with money matters. Similarly, Hira and Loibl (2005) discovered that financial literacy increases staff expectations about their forthcoming and far away future financial situation, making them more financially secure.

If we see the impact side, studies found that financial attitudes and self-efficacy affect financial behaviour positively and financial behaviour contributes to greater financial inclusion. Any improvement in a person's financial attitude will improve their financial behaviour, and they will demand and purchase more financial products; more financial products will be created by companies, giving individuals more financial stability and the ability to withstand financial shocks. In other words, financial health can be attained by developing a positive financial attitude and possessing financial knowledge. A financial mindset influences financial inclusion and positive financial behaviour. His ability to prepare for financial shocks is aided by insurance mitigating risk and credit lines offering emergency financial support (Lee et al., 2023). As a result, the individual experiences financial well-being and satisfaction.

H6: There is a significant relationship between financial behaviour and financial inclusion.

H7: There is a significant relationship between financial inclusion and financial well-being.

H8: Financial inclusion significantly mediates the relationship between financial behaviour and financial well-being.

2.6 FINANCIAL WELL-BEING

Financial well-being refers to the ability to manage one's resources and make decisions that will allow him to pursue his desired lifestyle. According to Bruggen et al. (2017), financial well-being is the perception of maintaining one's current and expected desirable living level and financial freedom. It involves the perception of financial stability for the current, future, and future. Undoubtedly, any person's financial situation does not always remain the same. Financial well-being is a broader concept that gauges how much people believe, perceive, and can cover their daily expenses, eventualities, freedom to enjoy life, financial stability to manage unexpected future expenditures and control over finances and other costs (Comerton-Forde et al., 2018). Income is a factor that significantly influences financial well-being since a high income motivates people to save for the future (Muir et al., 2019). A person is considered to enjoy financial well-being when a person can cover daily costs, save some money, and feel financially secure both now and in the future. They are also said to be in good financial health. Therefore, there are three dimensions: 1. Taking care of daily expenses and saving, which includes having enough money to cover emergencies, paying off debts, and fulfilling daily necessities. 2. Having control over one's resources, including a sense of control. 3. Sentiment of economic security. Vlaev and Elliott (2014) analysed how four factors—the capacity to withstand financial shocks, the sense of financial control, the accomplishment of financial goals, and the capacity to make wise financial decisions, could be combined to define financial well-being. Ponchio et al. (2019) found the dual sides of financial well-being: stress about current money management and future financial security.

Various researchers hold divergent viewpoints on financial well-being. There are two ways to study wellness, the first of which is objective and which employs a position scale with quantitative indicators to measure financial well-being. On the same lines (CFPB, 2015) also explained that there are two categories of well-being: a person's subjective and objective well-being. For objectively evaluating financial well-being, it contains data on earnings, savings, the number of children, net worth, consumption of products, and ownership of a property, among other things (Van Praag et al., 2003), objective measures, more emphasis is given to tangible assets of the respondents. At the same time, another method is a subjective evaluation of one's financial resources, including whether they are perceived to be adequate or insufficient and whether or not the person is content with them. Taft et al. (2013) measured subjective well-being by an individual's satisfaction with his overall financial situation, social life, living situation, etc. Ardelt (1997) believes that happiness, inner satisfaction, and a sense of comfortability with one’s finances are all components of subjective financial well-being. In objective measures, more emphasis is placed on materials and physical wealth.

In contrast, in subjective measures, we try to understand the financial behaviour of consumers and identify their perceptions, feelings, and views regarding their satisfaction with their financial situation. According to Gerrans et al. (2014), a subjective measurement may emphasize a person's degree of stress and satisfaction. As per studies, high subjective well-being results from more significant levels of happiness across the board. In other words, subjective deals with feelings and anxieties about one's financial state and objective deals with the actual position of finances and possessions of any individual. Delafrooz & Paim (2011) defined subjective well-being as examined using the perceived capacity to manage day-to-day expenses, contentment with one's financial situation, concern about debt, and belief in the manageability of savings and debt. Rutherford et al. (2016) studied the objective aspect of financial well-being and measured it through income, savings, debt, and assets. Some scholars, like Yin-Fah et al. (2010), argue that the behavioural aspect of greater financial well-being, including the importance of attitude, efficacy, financial knowledge, and financial processes, is more crucial (Rutherford & Fox, 2010). Financial well-being is a multifaceted notion that combines financial satisfaction, financial situation, financial attitudes, and financial conduct. According to Brüggen et al. (2017), although financial interventions, including financial knowledge, skills, income, financial assets, financial experience, locus of control, and financial status, have an impact, financial behaviour significantly influences financial well-being. However, according to Baek & DeVaney (2004), having extensive financial knowledge and experience won't help much if the family's income is insufficient. Due to their sense of duty to their families, married people behave more responsibly financially than single people. They spend more on family and are able to invest less as per their future requirements.

2.6.1 Factors affecting Financial Well-being

Every person has a varied level of financial well-being since everyone has various amounts of self-control. Anxiety about one's finances is correlated with a lack of self-control. People with self-control can invest more and save more to prepare for unforeseen expenses in the future and a secure retirement. Thus, it has been discovered that self-control has a favourable effect on financial behaviour and financial welfare. It affects financial security favourably but negatively affects anxiety. In addition to self-control, psychological traits like optimism and deliberate thought impact financial behaviour and well-being. Optimistic people put in much effort, accumulate large sums of savings, and retire later in life. They believe that good things will happen to them and that they can make their future financially secure.

Meanwhile, overly pessimistic people exhibit nasty financial habits since they believe everything will go according to plan (Puri & Robinson, 2007). Since pessimists cannot demonstrate good financial behaviour, their financial health eventually stays low, and optimism is crucial for maintaining financial wellness. Deliberative thinking again aids in making wise financial judgments and enhances FWB (Stromback et al., 2017).

Many additional aspects contribute significantly to financial well-being. Riitsalu and Murakas (2019) discovered that subjective financial knowledge is significantly associated with objective knowledge about financial well-being because it shows when, where, how long, and how much to invest to attain desired results. Taft et al. (2013) opined that age, education and financial literacy are strongly and positively associated with financial well-being. In contrast, unemployment, over-materialism, and socially motivated aspirations have a negative impact on financial well-being. People with materialistic values tend to have terrible money management skills and financial worries, and they overspend and buy compulsively. Chu et al. (2017) studied families and found that these families had good financial habits and higher levels of financial happiness. According to Atkinson and Messy (2012), people can make better financial decisions that lead to financial wellness when they combine their financial efficacy, attitude, and behaviour. Households with high financial literacy are more likely to invest in mutual funds and earn higher returns. In contrast, households with a low literacy level find it very easy to become indebted (Chu et al., 2017).

Financial behaviour is a crucial component of measuring financial well-being because it can be determined objectively by looking at a person's income, debts, savings, assets, and liabilities while subjectively determining their level of financial satisfaction. As a result, financial behaviour needs to be improved in each situation. According to (Puri & Robinson, 2007), having self-control, being optimistic, and using deliberate thought have a highly favourable impact on one's financial behaviour and well-being. Studies found that people who are overly optimistic exhibit poor financial behaviour. Greninger et al. (1996) used a Delphi study on teachers and financial experts to gather data for a household's financial profile, using liquidity and saving ratios to measure objective well-being and focusing on subjective well-being by providing information about people's perceptions and influences. A person's assessment of their ability to cover present and future expenses and worry over loans and debts was the focus of Kim and Garman's (2003) study.

According to some authors, one’s financial well-being is strongly linked to a variety of household factors, such as total household income, the total number of family members and their direct dependents, the family's investment preferences, financial behaviour, family financial management, financial attitudes, financial objectives, and financial knowledge. According to (Lusardi, 2019), illiteracy and a lack of financial literacy drive people into debt traps and make their lives unpleasant when they reach retirement age.

2.7 FINANCIAL WELL-BEING AND INDIVIDUALS

People cannot make sensible investments due to a lack of financial awareness. When faced with financial problems, they lack the resources to cushion the blow and turn to debt, ultimately preventing them from surviving because every person is impacted to varying degrees by financial management, financial literacy, and financial stress. The gender gap in financial well-being is also investigated, and according to a 2008 study by Beckmann and Menkhoff, women always make sound financial judgments. Men tend to take risks, diversify their investments, and seek to increase their money by pursuing uncertain pathways.

Being financially secure is a skill that can be mastered with practice (Joo, 1998). One can improve their quality of life by implementing various financial well-being practices. According to research, poor financial behaviour and practises ultimately negatively impact one's mental, physical, and social wellness. As a result, employees perform poorly at work, have poorer concentration levels, short-term decision-making, absenteeism and lower productivity. Previous studies have examined the idea that different people have different levels of financial wellness (Delafrooz & Paim, 2011; Sabri & Falahati, 2012). Franks Lauderdale (2021) also admitted that financial satisfaction is something we can observe at a given time. Still, more attention needs to be paid to financial well-being and the triggers which make changes in financial well-being. The state of financial well-being is crucial as it acts as a person's defence against unknown risks in the future and builds up a sizable amount of wealth for enjoying life even after retirement.

Hira and Mugenda (1998) outlined six categories to examine one's financial well-being: debt, savings, ability to reach long-term objectives, current financial condition, financial management abilities, and emergency preparation. Level of wealth accumulation, subjective financial contentment, level of debt, and retirement and estate planning and risk management are some variables that can be used to gauge financial well-being (Brüggen et al., 2017).

To sum up, this chapter explains that individuals, families, and society benefit from studying financial well-being since it significantly influences overall quality of life and stability. Financial well-being includes the ability to fulfil necessities and the ability to set objectives, deal with unforeseen costs, and plan for the future. Understanding and actively managing one's money may reduce stress, boost resilience in economic difficulty, and provide more chances for personal and professional development. Furthermore, a population with high financial literacy and stability promotes economic growth, social mobility, and equal access to resources and opportunities, eventually benefiting the well-being of whole communities and nations. Thus, engaging in the research and promotion of financial well-being is critical for developing individual empowerment, societal resilience, and long-term economic prosperity. The early literature review identified vital factors such as financial attitude, efficacy, behaviour, knowledge, and inclusion in addressing the complex interplay of individual, societal, and systemic factors influencing financial outcomes.

By investigating financial attitudes, researchers and policymakers may recognise biases in cognition, cultural implications, and psychological variables that influence financial choices, thereby providing strategies and initiatives for education that are focused on encouraging more advantageous and adaptable financial attitudes.

According to research, those with high financial efficacy are comparatively more inclined to engage in responsible financial behaviours like budgeting, saving, and investing, which leads to better financial well-being.

Financial behaviour refers to people's activities and decisions about their financial resources, such as spending, saving, borrowing, and investing. Researchers who study financial behaviour can find patterns, trends, and discrepancies in how people spend their financial resources and the variables that impact these decisions. Research has consistently demonstrated that those with more financial knowledge are more inclined to participate in intelligent financial behaviours and achieve better financial results.

On the contrary, financial inclusion refers to people's access to and use of formal financial services, including banking, credit, insurance, and savings accounts. Financial inclusion is a critical component of social equality and justice. Research on financial inclusion may help researchers uncover hurdles and disparities in access to financial services, along with socioeconomic, cultural, and institutional variables that contribute to being financially excluded. This knowledge is critical for developing comprehensive financial policies and activities that aim to increase the accessibility of financial services, promote resilience to financial hardship, and reduce inequities in financial well-being within various demographic categories.

Chapter – 3

RESEARCH METHODOLOGY

The current chapter contains information about the research methods used for the study. The research methodology is a framework that directs the researcher on the sample size, population, research design, sampling technique to be employed, data analysis methodologies, and other issues related to the fair conduct of research.

3.1 OBJECTIVES

The suggested study attempted to investigate the following objectives concerning financial behaviour, financial inclusion and financial well-being:

1. To study the relationship between financial attitude and financial efficacy with financial behaviour.
2. To study the moderation effect of financial knowledge on the relationship between financial attitude and financial efficacy with financial behaviour.
3. To study the mediation effect of financial inclusion in the relationship between financial behaviour and financial well-being.
4. To study the moderation effect of demographic variables on the relationship between financial efficacy, financial attitude and financial behaviour.
5. To study the moderation effect of demographic variables on the relationship between financial behaviour and financial well-being.

3.2 CONCEPTUAL FRAMEWORK

The conceptual model/framework is a diagrammatic/visual representation of the relationships among the constructs/variables in the research study/work. A literature review identifies the constructs/variables relevant to the study endeavour and generates the conceptual model. It also serves as the foundation for the relationships between the constructs/variables. A thorough literature review was conducted for the current research endeavour to identify the constructs/variables, and the following relationships between them helped develop the conceptual model. As a result, the proposed conceptual model was constructed, inspired by various theories and factors that helped achieve the current research work objectives.

The conceptual model incorporated the following ideas and variables (exogenous 'n' endogenous variables). This study does not directly embrace any theory or model, although theories of planned behaviour, financial well-being theory, and subjectivist theories of financial well-being inspired and helped to create a conceptual model.

3.2.1 Theory of Planned Behaviour

According to planned behaviour, Individuals behave intelligently in response to their subjective norms, attitudes and perceived behavioural control. These variables are not always actively or intentionally considered during decision-making. However, they serve as a foundation for the process, which evaluates the link between individuals' views and behaviours by considering attitudes towards behaviour, perceived behavioural control and subjective norms. Self-efficacy, an essential component of perceived behavioural management, is a human being's system for determining whether a specific behaviour is easy or difficult.

3.2.2 Theory of Financial Well-being

According to financial well-being, humans seek to maximise their financial well-being, which requires them to cultivate their financial behaviour. Financial education enables people to make better financial decisions, improving their financial well-being. Financial well-being is primarily determined by saving decisions and financial behaviour. Financial well-being must be assessed in light of a person's current financial situation and projected financial future.

3.2.3 Subjectivist Theories of Well-being

According to the subjectivist approach, an individual’s well-being is determined by whether or not his desires are satisfied—whether or not he obtains what he wants. However, those wishes cannot be criticised. If an individual wants to become a hermit and live in the mountains, herding sheep, which he most desires, then fulfilling this goal will make me happy. One may not always know what his most sincere desire is; perhaps he requires assistance in determining his most profound desires, but whatever those are, achieving them is what would be most beneficial to his well-being. For the subjectivist, there's no sense in which his desires can be flawed or mistaken or not good for him. Instead, an individual's desires define what is good for him.

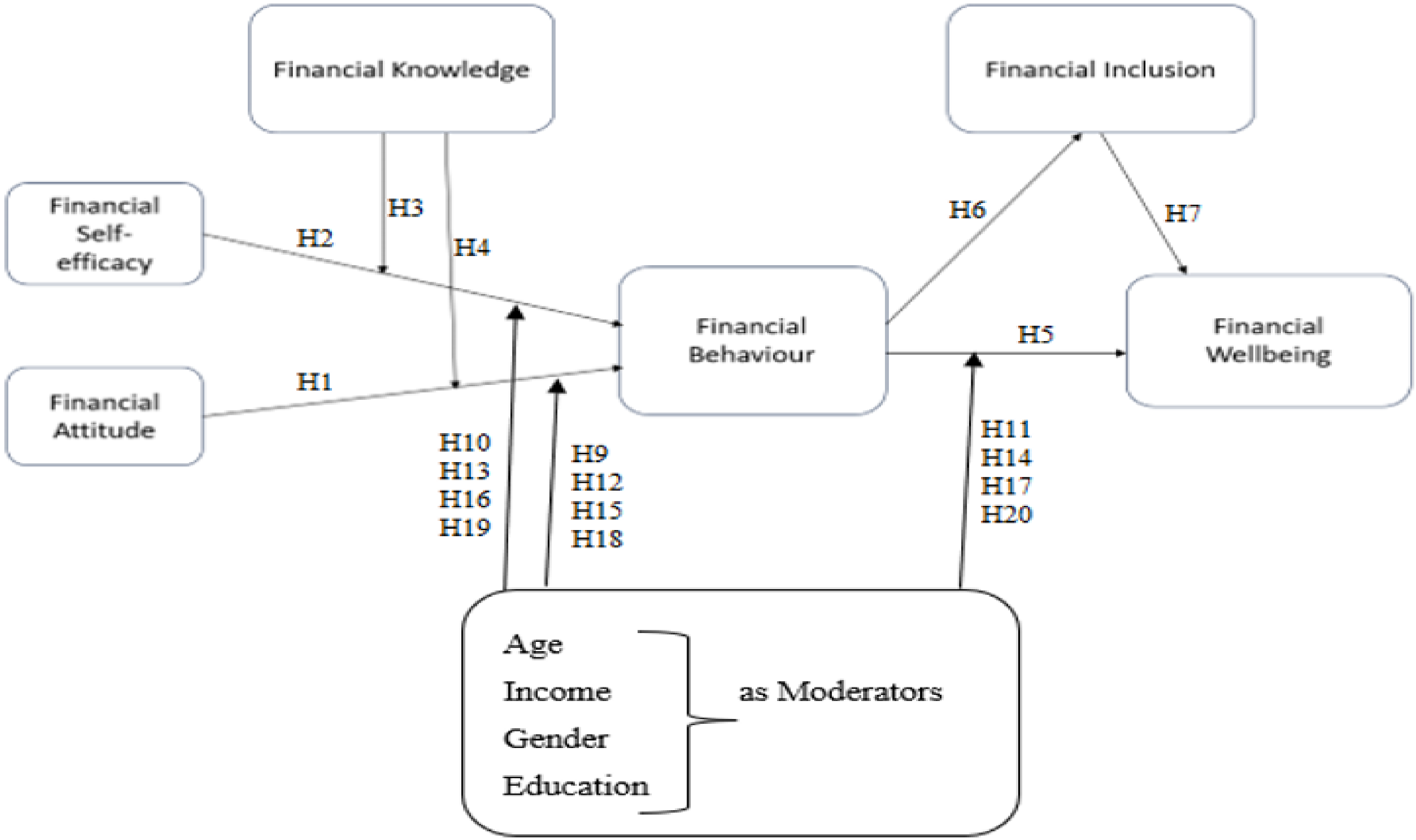

Figure 3.1 : Conceptual Framework

3.3 HYPOTHESIS

A hypothesis is a particular, evident, and predictive assertion regarding the probable outcome of scientific research conducted on a specific group of people or a sample drawn from a specified community (Kalaian & Kasim, 2008). One of the most essential processes in research technique is hypothesis formulation. The total investigation is being carried out to either reject the null hypothesis or to support the alternate hypothesis. Following the literature review, the hypothesis is framed since the relationships between the exogenous/endogenous variables are the foundation for formulating the hypothesis. As stated earlier, the correlations between exogenous and endogenous factors were thoroughly investigated in the thesis review of the literature (chapter 2) part. The hypotheses were developed after a thorough assessment of the literature. Based on the relationships observed, the following hypotheses (alternative) were developed for the current study work:

H1: There is a significant relationship between financial attitude and financial behaviour.

H2: There is a significant relationship between financial efficacy and financial behaviour.

H3: There is a significant effect of financial knowledge on the relationship between financial efficacy and financial behaviour.

H4: There is a significant effect of financial knowledge on the relationship between financial attitude and financial behaviour.

H5: There is a significant relationship between financial behaviour and financial well-being.

H6: There is a significant relationship between financial behaviour and financial inclusion.

H7: There is a significant relationship between financial inclusion and financial well-being.

H8: Financial inclusion significantly mediates the relationship between financial behaviour and well-being.

H9*:* Gender has a significant effect on the relationship between financial attitude and financial behaviour.

H10*:* Gender has a significant effect on the relationship between financial efficacy and financial behaviour.

H11*:* Gender has a significant effect on the relationship between financial behaviour and financial well-being.

H12*:* Education has a significant effect on the relationship between financial attitude and financial behaviour.

H13*:* Education has a significant effect on the relationship between financial efficacy and financial behaviour.

H14*:* Education has a significant effect on the relationship between financial behaviour and financial well-being.

H15*:* Income has a significant effect on the relationship between financial attitude and financial behaviour.

H16*:* Income has a significant effect on the relationship between financial efficacy and financial behaviour.

H17*:* Income has a significant effect on the relationship between financial behaviour and financial well-being.

H18*:* Age has a significant effect on the relationship between financial attitude and financial behaviour.

H19*:* Age has a significant effect on the relationship between financial efficacy and financial behaviour.

H20*:* Age has a significant effect on the relationship between financial behaviour and financial well-being.

3.4 INSTRUMENT DESIGN

One of the most essential research components is the instrument/scale/questionnaire. An appropriate questionnaire must be created for the researcher to obtain the responses required for the study. The findings will be inaccurate if proper information is not collected. As a result, establishing the questionnaire with the appropriate selection of questions is one of the foundational elements of adequate research. The current scale was created with extreme caution while keeping the study's objectives in mind, as the scale would help collect data to achieve the study's objectives and impact every aspect of the study.

The current study's questionnaire for capturing respondents' responses was divided into three sections: Section I included questions that assisted the researcher in comprehending the broad financial behaviour pattern of the participants with multiple-choice scales. Section II contained statements assessing the factors/constructs/variables, and the responses of the participants were obtained using a 5-point Likert scale, with 'strongly agree' represented by 5, 'agree' represented by 4, 'neutral' represented by 3, 'disagree' represented by 2, and 'strongly disagree' represented by 1. Finally, section III included demographic questions such as age, gender, marital status, career, education levels and income levels. The questions in this section used a multiple-choice or dichotomous scale. The statements used for assessing the factors/constructs/variables were adopted from the available literature, and the full details are shown in Table 3.1:

Table 3.1: Variables and Sources of the Statements/ Items

Exogenous/ Endogenous Variables	Items adapted from	Items used in different studies
Financial Attitude (FA)	Robb & Sharpe (2009)	Robb & Sharpe (2009) opined that regarding the likelihood of carrying a credit card balance, students with relatively higher levels of financial knowledge did not substantially vary from those with relatively lower levels. They need to have a financial attitude and financial knowledge.
	Kim, (2003)	Kim (2003) researched the effect of training at the workplace on financial knowledge, financial behaviour, financial attitude, and financial well-being.
	Yamauchi & Templer, (1982)	Yamauchi & Templer (1982) studied the financial attitude scale.
Financial Efficacy (FE)	Farrell et al., (2016)	Farrell et al. (2016) researched that for managing personal finance and financial knowledge, a sense of 'self-belief' or self-assuredness is also required in their capabilities, and this self-belief is called self-efficacy.
	Rothwell & Wu, (2019)	Rothwell & Wu (2019) opined that financial self-efficacy can be enhanced by imparting financial knowledge to participants across ages and for both genders.

Exogenous/ Endogenous Variables	Items adapted from	Items used in different studies
Financial Knowledge (FK)	Parrotta & Johnson (1998)	Parrotta & Johnson (1998) researched financial management and financial status satisfaction, which are influenced by recently married individuals' financial attitudes and knowledge.
	Jacobs et al., (2005)	Jacobs et al. (2005) explored how people's financial risk tolerance, long-term outlook, and retirement planning knowledge affect their saving habits.
Financial Behaviour (FB)	Strömbäck et al., (2017)	Strömbäck et al. (2017) researched the impact of non-cognitive factors and self-control on an individual's financial behaviour and well-being.
	Xiao et al. (2009)	Xiao et al. (2009) researched financial satisfaction and found that it is positively impacted by rational financial behaviour that leads to overall satisfaction. Academic achievement and academic satisfaction are two more mediating factors that positively influence life satisfaction.
Financial Inclusion (FI)	Mhlanga et al., (2020)	Mhlanga (2020) studied the impact of financial inclusion in reducing poverty.
Financial Wellbeing (FW)	The Consumer Financial Protection Bureau (CFPB)	The Consumer Financial Protection Bureau (CFPB) developed the scale to measure an individual's financial well-being.

According to the suitability of the present study, the statements utilized in previous research have been altered. After making the necessary changes to the statements, industry experts and academicians validated the preliminary form of the questionnaire.

Table 3.2 shows the number of statements/questions in each part of the questionnaire's first draft.

Table 3.2: Description of the Questionnaire (before Face Validity)

Section of the questionnaire	**Number of Questions / Statements**
Section I (General Questions)	16
Section II (Statements related to factors/ constructs/ variables)	62
Section III (Questions related to demographic variables)	9

After the preliminary form of the questionnaire was completed, the next phase of designing the questionnaire aimed to obtain face validity from industry specialists and academicians. Academicians' and industry specialists' ideas were integrated into the questionnaire's rough draft. The questionnaire was modified by either eliminating or altering some of the statements. After incorporating the ideas, the questionnaire structure was changed, and the number of questions in sections I and II were reduced. Table 3.6 contains more information on this.

3.5 POPULATION AND SAMPLE

A population, or sample, is a group of live or non-living items included in a study. Respondents for the current study were people who work and earn money in the Punjab region. The data for the recent research is gathered from the working population of Punjab, as it is considered that the working population has access to financial services. The Punjab's population in 2022 was utilised to assess the entire employed population of Punjab (Punjab population 2022 report). As per the

Economic survey in 2017-18, the entire workforce (age), i.e., the age grouping from 15 to 64 years, in Punjab 2017-18 is 71.8% of the population. According to 2022 data, Punjab had an estimated population of 31 million people; hence, the total working population of Punjab is considered for study to be 21.5 million. Calculating the same at a 95% interval level, the sample size for the present research work is proposed to be 1100. The Cochran formula is used to select a sample of a large population. The Cochran formula calculates an optimum sample size based on the desired precision, confidence level, and expected ratio of the attribute in the overall population. Cochran's formula is considered especially appropriate in situations with large populations.

The Cochran formula:

$$n_0 = \frac{Z^2 pq}{e^2}$$

- e is the desired level of precision (i.e., the margin of error),
- p is the (estimated) proportion of the population which has the attribute in question,
- q is 1 – p.
- Z= 1.96 (as per the table of the area under normal curve for the given confidence level of 95%)
- e= 0.03 (since estimation should be within 3% of true value)

For the required most conservative sample size, p is 0.5, and q is (1-p) 0.5.

Sample size = [(1.96) ^2*0.5*0.5]/ (0.03) ^2

= 1067 (1100 rounded figure)

The literature review also supports the sample size, where research in this area is done with a sample size ranging between 600-1200.

As the sample size has already been considered, the next step is determining the sampling technique to collect the data. Purposive or judgmental sampling (a non-probabilistic sampling technique) is proposed for data collection from the population under research. A sample represents a group whose features have been determined for the study's objective. Findings from a research study via purposive sampling can solely be generalised to the sample from which the outcomes were collected, not to the population as a whole. The researcher employs stated criteria to choose materials or participants for inclusion in a study. Purposive sampling is subject to investigator manipulation since he picks only relevant individuals as per his knowledge (Obilor, 2023). In simple terms, the researcher is aware of what needs to be known and is also aware of the people who, by his understanding or experience, are willing to provide the information regarding the research topic in the study. For the present study, the respondents will be the ones who are able to save, have access to different types of financial products and are financially capable of using these products.

As a result, to continue the current research, the group of persons who are the genuine representatives of the population is referred to as the responders, and a sample is taken from such individuals. The results disclosed by the sample remain accurate to the population if the selection is appropriately drawn, free of biases, and represents the population accurately (McEwan, 2020)

3.6 SAMPLING TECHNIQUE

A sampling technique is the process of selecting responders from a population. The researcher used purposive sampling to acquire information regarding the respondents in this study. According to Robinson (2014), purposive sampling is an intentional selection of respondents based on their ability to clarify a given topic, phenomenon, matter or concept. Researchers use purposive sampling to find respondents knowledgeable about the issue under discussion or who understand the subject in question more. The sample was acquired from Punjab, and because the sample size for the study work was 1100, purposive sampling was used to collect the information (data) from the 23 districts of Punjab. Samples were collected from Punjab as this state has a per capita income more than the per capita income of India (India's average per capita income is 172 thousand rupees, and Punjab's per capita income is

181 thousand rupees (Report on per capita income across India in financial year 2023). Sample segmentation is given in Table 3.3:

Table 3.3: Sample Segmentation (based on Districts)

Sr. No.	Districts of Punjab	No of Respondents	Sr. No.	Districts of Punjab	No of Respondents
1	Amritsar	91	12	Ludhiana	128
2	Barnala	22	13	Mansa	28
3	Bathinda	51	14	Moga	36
4	Faridkot	23	15	Sri Muktsar Sahib	33
5	Fatehgarh Sahib	22	16	Pathankot	25
6	Firozpur	74	17	Patiala	69
7	Fazilka	43	18	Rupnagar	25
8	Gurdaspur	84	19	Sahibzada Ajit Singh Nagar	36
9	Hoshiarpur	58	20	Sangrur	61
10	Jalandhar	80	21	Shahid Bhagat Singh Nagar	23
11	Kapurthala	30	22	Taran Taran	41
			23	Malerkotla	17

Source: 2021: Population Data on District/Sub-District Level

The information was gathered online and offline. Online data was collected through Google Forms and Facebook). Emails were collected from relatives, friends and respondents. Data gathering continued until all districts provided information from the required respondents. The link to gather the data was posted on the Facebook page and emailed to the respondents using a Google form. Offline data was collected with printed questionnaires. Links for offline were again taken from relatives, friends, people at the workplace and respondents. Purposive sampling was used to obtain data because the researcher knew the respondents' demographics. The questionnaire link was emailed to 500 potential respondents, and 292 respondents completed the survey. Nine hundred hard copies were distributed, out of which discrepancies were found in 92 hard copies. Hence, data from 1100 respondents was collected online and offline. The data was collected from all districts of Punjab.

The URL for the survey that was mailed to responders was https://forms.gle/ZTJXd1awCgrKDMX67. The questionnaire was prepared using Google Forms.

3.7 SAMPLE SIZE

A sample survey was undertaken to obtain data from those intended for the current study. For the present study, a sample survey was conducted to get data from the desired respondents. The population for the recent research is assumed to have access to various financial products. The data for the current study is expected to be gathered from the working individuals of Punjab, as the working population is considered to have access to financial products. The Punjab economic survey of 2021-22 assesses the entire working population of Punjab. At a 95% confidence level, the sample size for the study mentioned above was estimated using the size of the population under study, i.e., 21.5 million working individuals (71.8% of the overall population of 31 million) of Punjab. The population of Punjab was divided into 23 districts. 71.8% of every district was considered as the population to be used for the sample. So, out of the total population of Punjab, the percentage of the eligible population of each district was found (population of district / total population of Punjab*100), and then a sample of 1100 was divided as per the respective percentage of every district. The sample size for the current study was around 1100 people who were tested using confirmatory factor analysis (CFA), hypothesis testing, and path analysis.

3.8 FACE VALIDITY

In research, the purpose of validity is how precisely the instrument evaluates the information it expects to measure. The literal meaning of validity is "accuracy." The degree to which an instrument appears to measure what it is intended to assess is known as validity (Johnson, 2013). Academics and business professionals are consulted to prove the face validity of the measurement devices (questionnaires) face validity. The primary purpose of performing the questionnaire's face validity is to confirm its applicability from an industry and academic viewpoint. When specialists and academicians discover that the instrument can measure what it claims to measure, it is said to be face-validated. In the current study, industry experts and academics determined the face validity of the measurement equipment. The banking and financial services industry experts were joined by academicians from several academic institutions. The industry experts and academicians' comments were included in the instrument, and the redesigned instrument was created. The following is the contact information for industry specialists and academics (Table 3.4) :

Table 3.4: Expert Details (Face Validity)

Sr. No.	Name	Company/ Institute	Designation	Area
1	Dr. Babli Dhiman	Lovely Professional University	Professor and HOD	Academician
2	Dr. Preeti Mehra	Lovely Professional University	Associate Professor	Academician
3	Dr. Jasmeet Singh Pasricha	Punjabi University Patiala	Professor and HOD	Academician
4	Dr. Dheeraj Nim	Oriental University, Indore	Professor and Head, Oriental School of Business Management and Commerce	Academician
5	Dr. Veer P. Gangwar	Lovely Professional University	Professor	Academician
6	Dr Radha Sharan Arora	Punjabi University	Professor	Academician
7	Dr Nityesh Bhatt	Nirma University, Ahmedabad	Professor and Head	Academician
8	Dr Rahul Sharma	Lovely Professional University	Professor	Academician
9	Sameer Sharma	ICICI Bank	Regional Head Sales	Industry Expert

Sr. No.	Name	Company/ Institute	Designation	Area
10	Sandeep Bhatia	HDFC Bank	Zonal Head	Industry Expert
11	Rahul Sharma	Tata Asset Management Pvt. Ltd.	Marketing Head	Industry Expert
12	Akashdeep	HDFC Bank	Assistant Vice President	Industry Expert

A rough draft of the questionnaire was mailed to all the experts. When they responded with 'kept', 'modified,' or 'removed' for certain statements/items, the necessary action relied on the experts' recommendations. Some of the statements were adjusted or deleted based on the suggestions, but the majority of the statements remained unchanged.

The results of the content validity index are given below in Table 3.5, and the criteria is that values range from 0 to 1 where I-CVI > 0.9, and the item is relevant.

Table 3.5: Face Validity Results

Dimension	CVI (relevance)	CVI (Clarity)
Financial Self Efficacy	0.96	0.95
Financial Attitude	0.99	0.99
Financial Knowledge	0.99	0.96
Financial Behaviour	0.99	0.99
Financial Inclusion	0.91	0.91
Financial Wellbeing	0.97	0.97

Table 3.6: Description of the Questionnaire (after Face Validity)

Section of the questionnaire	Number of Questions / Statements
Section I (General Questions)	14
Section II (Statements related to factors/ constructs/ variables)	55
Section III (Questions related to demographic variables)	6

Incorporating the recommendations into the updated questionnaire, the next phase in questionnaire creation was pilot testing. The respondents' replies were collected to test the questionnaire's internal validity.

3.9 PILOT STUDY

In social sciences and experimental design literature, the term 'pilot' has various connotations. The word 'pilot study' refers to a 'pilot trial' or 'feasibility study' (Thabane et al., 2010). As per the study of Van Teijlingen and Hundley (2002), a 'pilot study' is a method of preliminary testing a research instrument such as a questionnaire or a schedule for interviews. The targeted respondents completed the amended questionnaire to pre-test it before collecting final data in the pilot project. The pilot research was conducted to determine the instrument's internal consistency. It can also be called ‘internal reliability,' which checks the instrument's internal reliability to decide if the questionnaire's data is reliable. To continue the process, Cronbach's alpha is measured to determine the instrument's internal reliability. Cronbach's alpha values range from 0 to 1; anything less than 0.7 is considered inadequate (Cortina, 1993). Cronbach alpha must be computed for each factor/construct/endogenous/exogenous/ variable. Cronbach's alpha was also calculated for each construct in the current study. Cronbach alpha for each factor was more significant than 0.7 (Table 3.7), proving the instrument's internal reliability. The internal reliability of the questionnaire was checked by obtaining data from 100 respondents, who represented the total sampling frame from which the data for the current study was planned to be collected.

Table 3.7: Internal Consistency (Cronbach alpha) (Reliability Analysis)

Sr. No.	Exogenous/ Endogenous Variables	No. of Items	Cronbach Alpha	Range of Cronbach alpha
1	Financial Efficacy	7	0.857	Acceptable
2	Financial Attitude	11	0.712	Acceptable
3	Financial Knowledge	11	0.876	Acceptable

Sr. No.	Exogenous/ Endogenous Variables	No. of Items	Cronbach Alpha	Range of Cronbach alpha
4	Financial Behaviour	9	0.883	Acceptable
5	Financial Inclusion	10	0.826	Acceptable
6	Financial Well-being	7	0.915	Acceptable

The questionnaire's internal reliability had been confirmed because the Cronbach alpha value for each construct was more significant than 0.7, so the next stage was to gather data from the rest of the respondents. The respondents (the sample) were drawn from the sampling framework. The sampling frame reflects the population considered under study and contains data on the participants (respondents). It is an exhaustive list of individuals that the researcher wishes to investigate.

3.10 STATISTICAL TOOLS

The statistical techniques used for analysing data bring life to the data or provide meaning to raw data. Results and conclusions become helpful only when appropriate statistical tools and methodologies are employed (Ali & Bhaskar, 2016). The structural equation modelling (SEM) method was applied to analyse the data in the present study. SEM is a valuable method for analysing the relationships between two or more latent variables in a conceptual model (Akter et al., 2017). SEM is divided into two approaches: structural equation modelling based on variance (VBSEM) and structural equation modelling based on covariance (CBSEM). While Hair et al. (2011) has distributional constraints when estimating lengthy relationships, CBSEM effectively confirms theoretically proven relationships. PLS-SEM operates on the VBSEM principle, whereas AMOS operates on the CBSEM basis. PLS-SEM is identified as a platform that can undergo multivariate analysis with a high degree of finesse and sophistication, as composites and factors may be simulated with inherent flexibility (McDonald, 1996) ; however, Hair et al. (2011) describe it as a silver bullet. Scholars from several disciplines (Chin et al., 2008; Hulland, 1999; Fornell & Bookstein, 1982; Sarstedt et al., 2016) have proposed PLS-SEM as a method that may easily extract complexity in models.

PLS-SEM can work with many indicators and latent variables in a conceptual model, even if the sample size is limited (Chin et al., 2008). Hair et al. (2019) provided the following justifications for using PLS-SEM for analysing data or test the proposed framework: 1) if the structural framework is complex, with numerous constructs/variables and many links among them; 2) if the data contains financial ratios to work with, and so on. PLS-SEM ver. 3.2.9 was used to analyse the relationships between independent and dependent variables simultaneously because the current research intends to test the theoretical framework suggested, as the conceptual and conceptual models are more complex with many relationships between the constructs/variables. Furthermore, Excel was used to perform descriptive statistics on the data. Finally, Tableau Public 2018.2 was used to represent the data visually. The current study examined the proposed conceptual model using PLS-SEM (partial least square-structural equation modelling).

To begin, confirmatory factor analysis (CFA) was performed to determine whether the indicator variables of the specific constructs measured their constructs, confirming the convergent validity and whether there was evidence of any multicollinearity between the constructs, confirming the discriminant validity. After determining the instrument's convergent and discriminant validity, path analysis examined the expected causal links among the latent constructs (structural model). After deciding the internal validity, the data was collected and analysed.

3.11 DEMOGRAPHIC DATA

Demographic data refers to population information about demographic variables such as gender, age, employment, marital status, education, etc. The demographic data of the respondents who took part in the current study were represented graphically in the following graphs:

The ratio of males to females who participated in the survey is depicted in Fig 3.2. The statistics clearly show that there were a total of 1100 responders. The study included 58.27% (n=641) males, 41.55% (n=457) females, and 0.09% (n=1) transgender people. According to the survey, males were likelier to complete the questionnaire and indicate their savings and investing preferences.

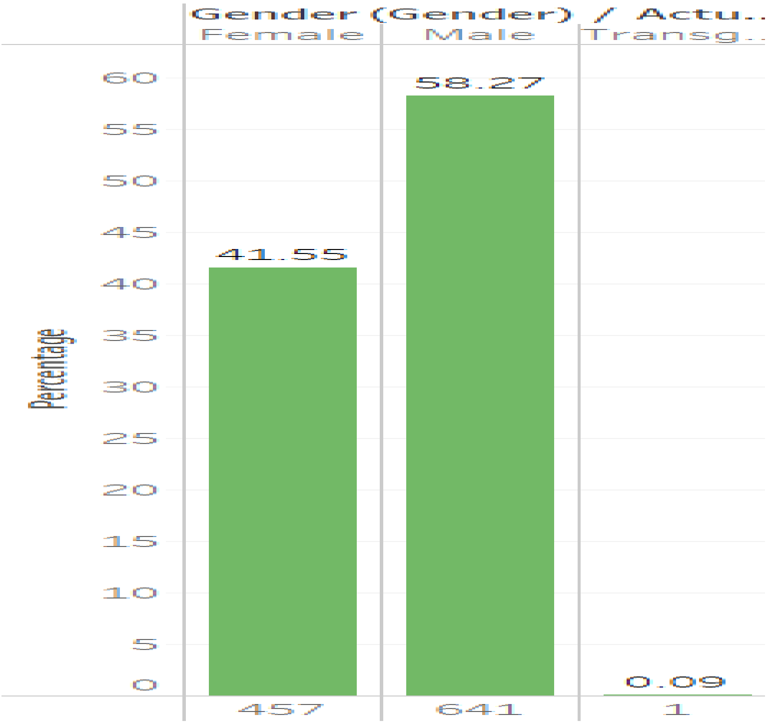

Fig 3.2 Gender details

Table 3.8: Gender details

Gender	Actual Number	Percentage
Male	641	58.27
Female	457	41.55
Transgender	1	0.09

Figure 3.3 shows the age distribution of the survey participants. The figure clearly shows that most respondents (21.82% (n=460) were between the ages of 26 and 35. The following age group, 36-45 years old, accounted for 29% (n= 319). Similarly, other respondent age groups that participated were 18-25 years 14.82% (n=14.82), 46-55 years 10.55% (n=116), and 50-60 years 3.82% (n = 42). This participant ratio demonstrates that younger people are eager to do and disclose their money management, while the senior section is hesitant to disclose any information about their financial behaviour.

Table 3.9: Age group

Age	Actual Number	Percentage
18-25 yrs.	163	14.82
26-35 yrs.	460	41.82
36-45 yrs.	319	29.00
46-55 yrs.	116	10.55
56-60 yrs.	42	3.82

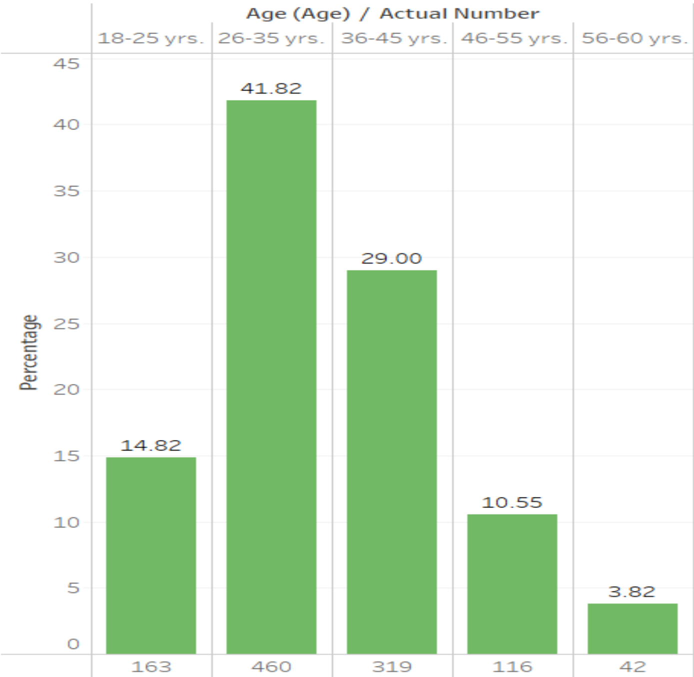

Figure 3.3 : Age group

Figure 3.4 provides thorough information on the educational level of the respondents. According to the analysis, most respondents (45.09%, or 496 in total) held a master's degree, followed by (27.73%) with a bachelor's degree, who numbered 305 in total. Aside from that, 228 people were awarded PhDs, representing 20.73% of the total. The remaining respondents had educational levels ranging from higher secondary 4.64% (n=51), secondary 1.27% (n=14), and formal degree 0.55% (n=6). As a result of the analysis, most of those who participated in the study were highly educated and could divulge their financial behaviour.

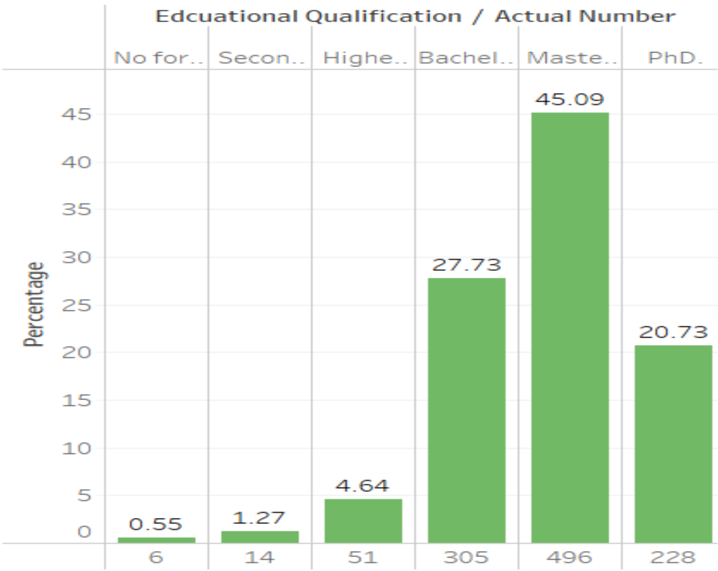

Figure 3.4 : Educational qualification

Table 3.10 Educational qualification

Educational Qualification	Actual Number	Percentage
No formal Education	6	0.55
Secondary (10th)	14	1.27
Higher Secondary	51	4.64
Bachelor's Degree	305	27.73
Master's Degree	496	45.09
PhD.	228	20.73

Figure 3.5 presents information about the respondents' occupations. According to the data, most of those who participated in the study were private employees (n=763, 69.36%), followed by government employees (n=149, 13.55%). Respondents from the remaining categories, such as self-employed (n=79, 7.18%), businessman (n=50, 4.55%), professional (n=39, 3.55%), and others (n=20, 1.82%), were insignificant in number. This skewness towards private employees indicates that they feel highly insecure and, as a result, are more concerned about future security. As a result, they are more willing to save and invest.

Table 3.11 : Occupation detail

Profession	Actual Number	Percentage
Govt Employee	149	13.55
Private Employee	763	69.36
Professional	39	3.55
Businessman	50	4.55
Self-employed	79	7.18
Other	20	1.82

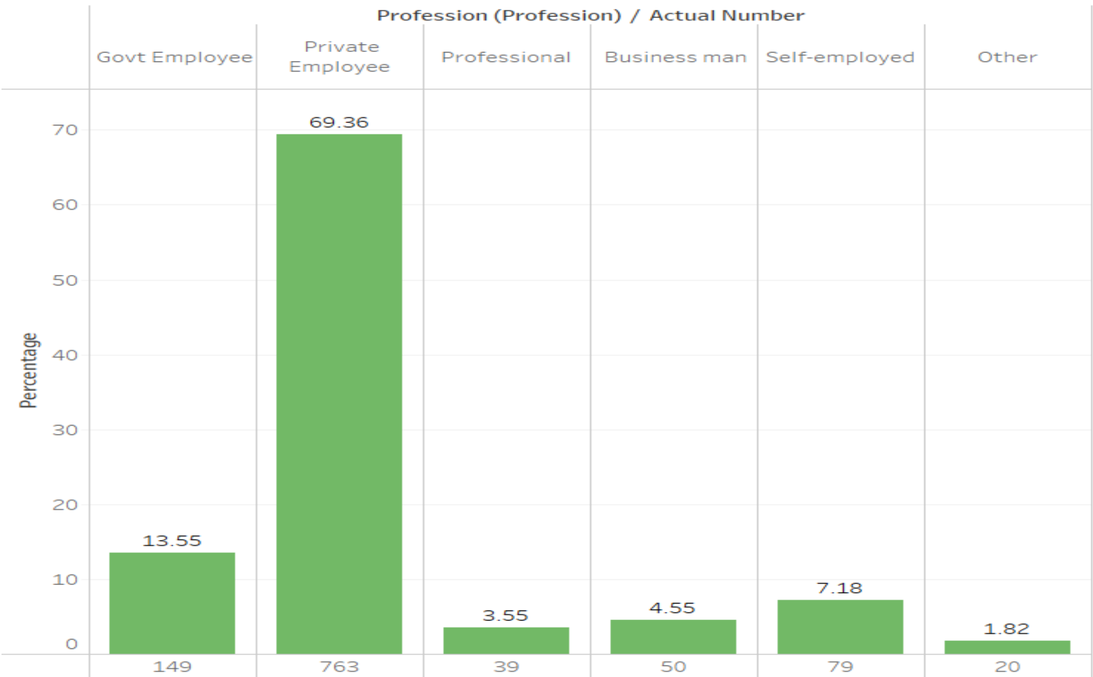

Figure 3.5 : Occupation detail

Figure 3.6 depicts the respondents' earnings. According to the data, the highest respondents were in the income group of ‘greater than 70K’ (n=334, 30.36%), followed by ‘31K-50K’ (n=248, 22.55%), ‘15K-30K’ (n=221, 20.09%), 15 K (n=195, 17.73%), and 51K-70K (n=102, 9.27%). According to the findings, respondents earning more than Rs.70,000 are more likely to invest and save their earnings and are ready to reveal.

Table 3.12: Monthly income

Monthly Income	Actual Number	Percentage
< 15K (Less than)	195	17.73
15K-30K	221	20.09
31K-50K	248	22.55
51K-70K	102	9.27
> 70K (Greater than	334	30.36

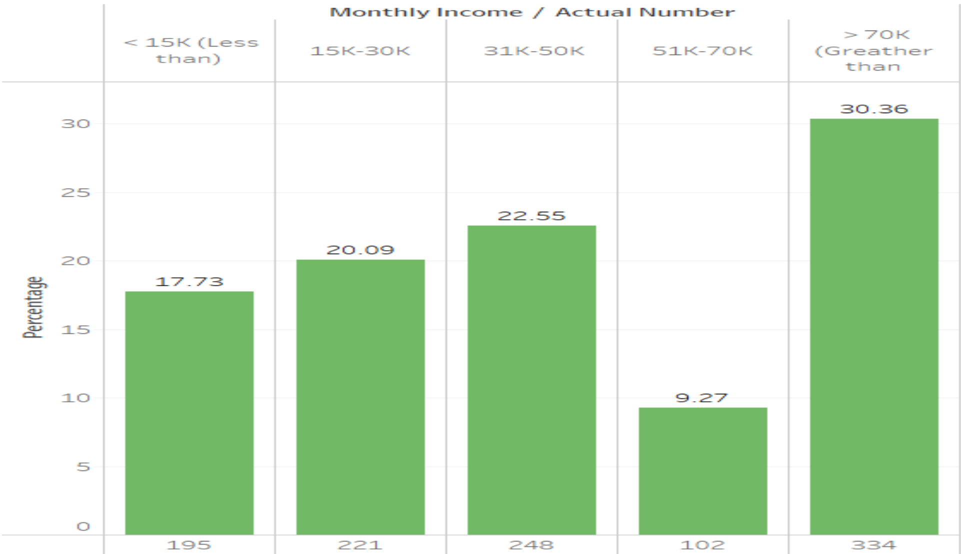

Figure 3.6 : Monthly income

Figure 3.7 displays the data related to the marital status of the respondents. The data showed that the maximum number of respondents were married (n=701, 63.73%), followed by single (n=388, 35.27%), Others (n=8, 0.73%), and Divorced (n=3, 0.27%).

Table 3.13 : Marital status

Marital Status	Actual Number	Percentage
Single	388	35.27
Married	701	63.73
Divorced	3	0.27
Other	8	0.73

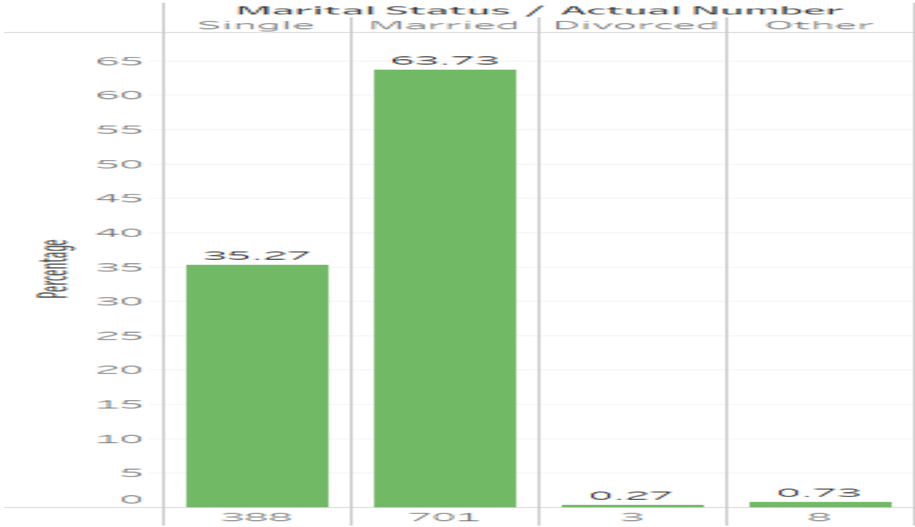

Figure 3.7 : Marital status

The present chapter explains the research method used for the study. The chapter explained the objectives for which the study was conducted. A well-framed conceptual model was constructed to test the relationship between financial attitude and financial efficacy with financial behaviour, depicted the moderation effect of financial knowledge on the relationship between financial attitude and financial efficacy with financial behaviour, mediation analysis on the relationship between financial behaviour and financial wellbeing and finally moderation effect of demographic variables was also seen on relationships depicted in the conceptual model. The chapter explained the theory used to frame the conceptual model, the hypothesis used in the study, the data collection scheme, questionnaire details, sample selection technique, sample size, face validity process, pilot study process, the method used in the study and details about demographic data of respondents. This chapter provides the foundation and planned pathway for conducting the present study.

Chapter – 4

USAGE PATTERNS

The current chapter contains information on respondents' financial service usage patterns taken from Punjab's earning population. This chapter discusses respondents' sources, motivations, and impediments to savings and investing habits. Furthermore, the chapter discusses the elements that assist individuals in making financial decisions. Overall, this chapter contains information concerning savers' typical investment habits.

The responses related to 'Do you save out of your income' were corroborated in Fig 4.1. Because respondents could choose between two options, they all chose yes. The responses emphasised the significance of saving one's life. People are becoming more conscious of the importance of saving to manage unforeseen and future expenses when and where they arise. Furthermore, one of the qualifying criteria for filling out the questionnaire was that respondents save some of their income.

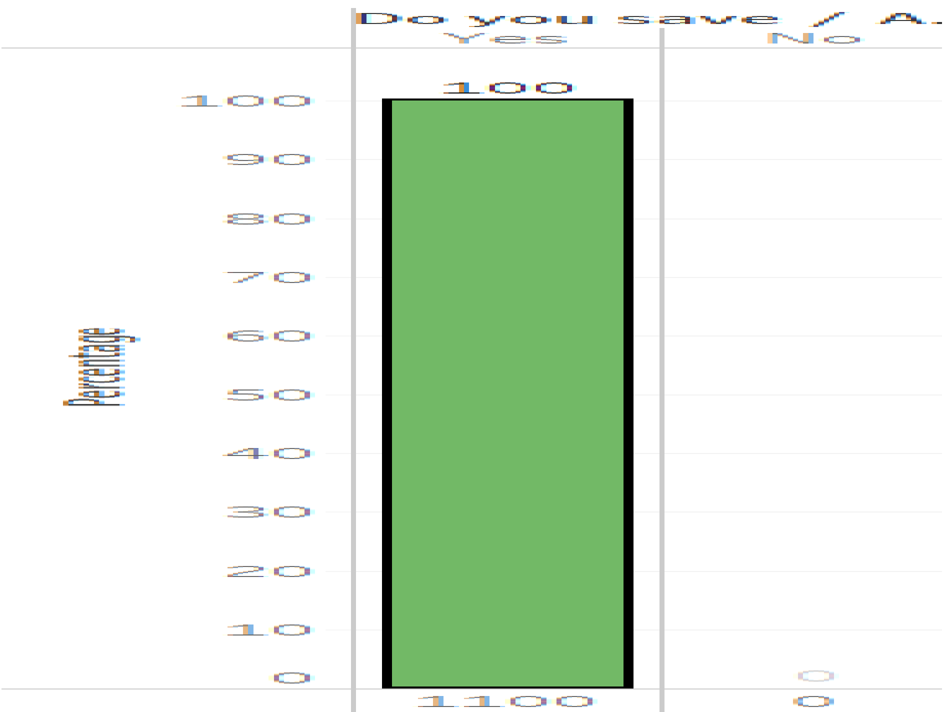

Figure. 4.1 : Saving habits

Table 4.1 : Saving Habits

Do you save	Actual Number	Percentage
Yes	1100	100
No	0	0

The responses to the question 'How much do you save per month?' were shown in Fig. 4.2. According to the data analysis, the majority of respondents (33.91%, n=373) reported being able to save less than 5000 Rs. per month, closely followed by the saving group of 5000-10000, which had 31.18% (n=343). Savings beyond Rs.20,000 came in third place with 14.69% (n= 161), and savings between Rs.10,000 and Rs.15,000 came in next place with 12.36% (n=136). However, respondents selected the fewest choices in the 15000-20000 range (n=136). It indicated that most consumers could not save much more money due to rising inflation in the economy. Most people responded that they can save less than 5000 Rs. from their income. Nearly 60% of respondents admitted that they can save up to 10,000. Still, in a high inflation and materialistic world, only 14.64% of respondents admitted saving more than 20000.

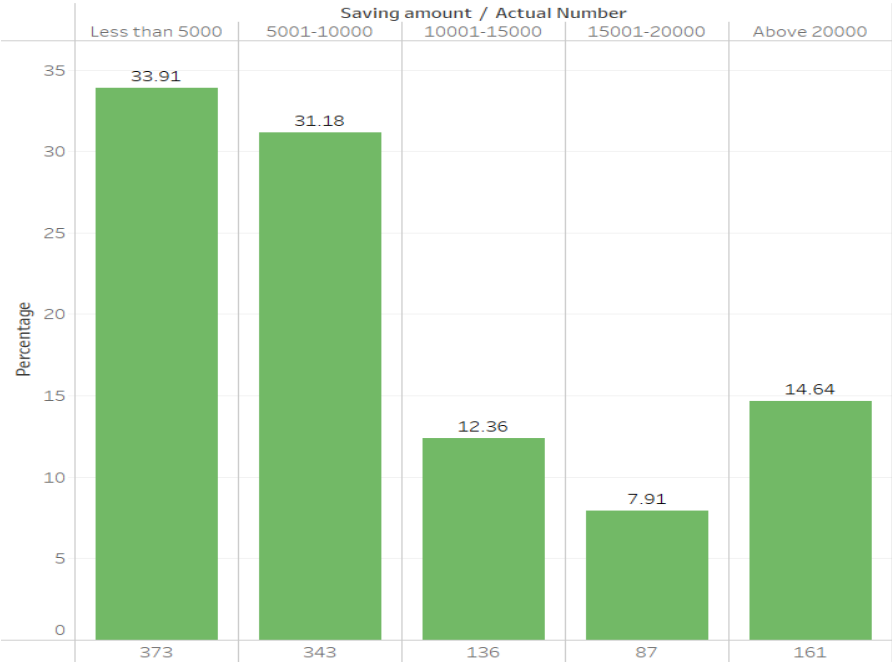

Figure 4.2 : Saving Amount

Table 4.2 : Saving Amount

Saving amount	Actual Number	Percentage
Less than 5000	373	33.91
5001-10000	343	31.18
10001-15000	136	12.36
15001-20000	87	7.91
Above 20000	161	14.64

Fig. 4.3 responded, 'Among the following, what is the best reason to open a bank account?' According to the data analysis, most respondents (57.11%, n=687) opened a bank account for saving purposes, whereas 28.93% (n=348) opened a bank account for transaction purposes. 9.23% (n= 111) of bank users said they wanted ATM cards as a reason for opening a bank account, while 3.74% (n=45) said they wanted bank accounts to get a loan, and 1% (n=12) said they wanted bank accounts for other reasons like opening a locker account, sending money home, and so on. According to this analysis, most people prefer to open bank accounts for savings and transactions. A few people open bank accounts to obtain loans and lockers.

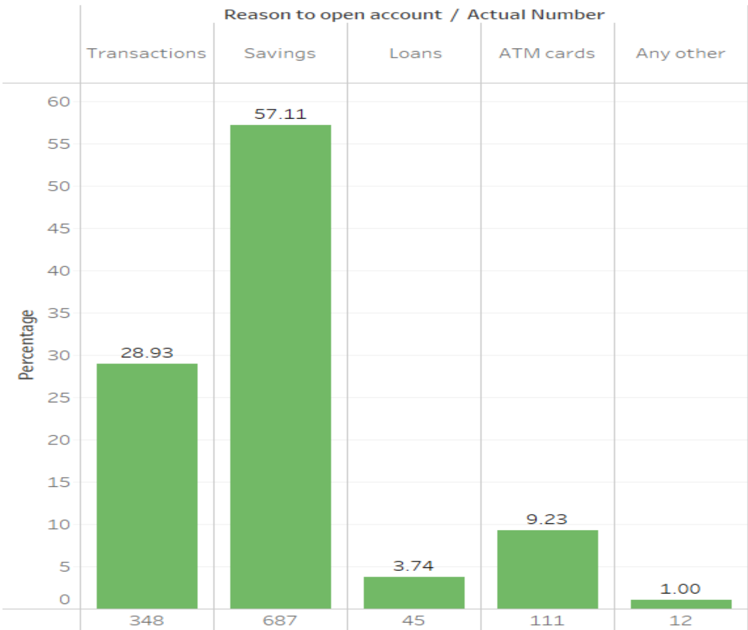

Figure 4.3 : Reasons to Open a Bank Account

Table 4.3 : Reasons to Open a Bank Account

Reason to open an account	Actual Number	Percentage
Transactions	348	28.93
Savings	687	57.11
Loans	45	3.74
ATM cards	111	9.23
Any other	12	1.00

In Fig. 4.4, the responses related to the question 'In a typical month, how many times is money taken out from your account (s)?' were shown according to the responses, the majority of respondents (38% (n=418) prefer to withdraw 1-2 times per month, while 30.18% (n=332) prefer to withdraw 3-5 times per month. Responses for more than five withdrawals came in third place with 28.64% (n=315), although 3.18% (n=35) respondents reported no withdrawals in a month. According to this analysis, most people want to withdraw money 1-2 times per month, while one-third of those polled said they must take money 3-5 times monthly.

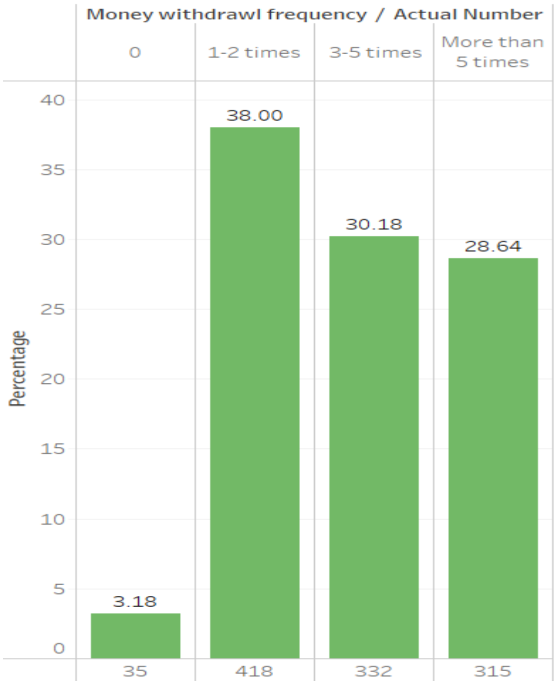

Figure 4.4 : Money Withdrawal Frequency

Table 4.4 : Money Withdrawal Frequency

Money withdrawal frequency	Actual Number	Percentage
0	35	3.18
1-2 times	418	38.00
3-5 times	332	30.18
More than 5 times	315	28.64

Figure 4.5 stated the responses to the question 'Select the options you use for transactions?' According to the results, the majority of respondents (25.49% (n=609) preferred ATM/Rupay cards for their transactions, followed by wallets and UPI payments 24.78% (n=592) respondents. In this situation, 19.55% (n= 467) chose Internet banking, whereas 13.10% (n= 313) opted for credit card for transactions. Following along the same lines, 12.39% (n=296) of respondents preferred to use a bank online app, while only 4.52% (n=108) and 0.17% (n=4) preferred to visit a bank branch. This analysis demonstrates that people are content to transact using ATMs, UPI, and Internet banking. People have begun utilising the internet frequently to use banking apps and credit cards for transactional purposes to save time and effort but are very reluctant to go to bank branches.

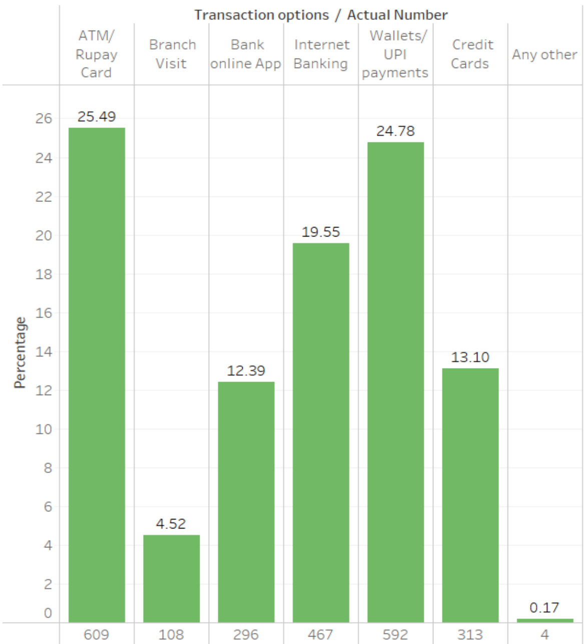

Figure 4.5: Transaction Options

Table 4.5: Transaction Options

Transaction options	Actual Number	Percentage
ATM/Rupay Card	609	25.49
Branch Visit	108	4.52
Bank online App	296	12.39
Internet Banking	467	19.55
Wallets/UPI payments	592	24.78
Credit Cards	313	13.10
Any other	4	0.17

Figure 4.6 responded, 'Select the option that influences you to invest?' It was clear from the responses that most respondents, 48.90% (n=737), were self-reliant in their investment decisions. It suggests that people are aware of their needs and can identify the best investment possibilities, and credit goes to the widespread availability of the Internet. 19.90% (n=300) said they got counselling from friends, while 18.97% (n=286) said they speak with financial specialists before investing. Only 8.16% (n=123) of those polled preferred knowledge from advertisements, while 4.04% (n=61) preferred assistance from colleagues, others' experiences, etc. This analysis shows that consumers are highly aware of their demands and can find investing options in one way or another. Few are also ready to take advice from friends and financial experts.

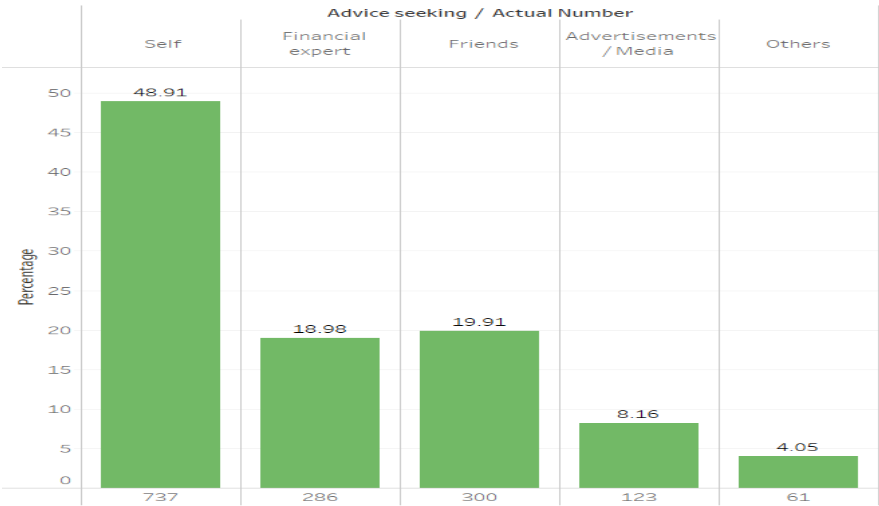

Figure 4.6: Seeking investment advice

Table 4.6: Seeking Investment Advice

Advice seeking	Actual Number	Percentage
Self	737	48.90511
Financial expert	286	18.9781
Friends	300	19.9071
Advertisements/ Media	123	8.161911
Others	61	4.047777

Figure 4.7 shows the responses to the question 'The reason that motivates you to invest?'. It was clear that nearly one-third of the respondents, 29.97% (n=624), get their motivation for saving from future life events such as their children's schooling or marriage, whereas 23.78% (n=495) wish to save for unexpected situations. Among all respondents, 18.88% (n=393) are concerned about protecting and preserving their retirement, while 17.24% (n=359) aim to reduce their tax liabilities. 8.93% (n=186) desire to save for a trip, holy locations, or gifts for loved ones, while just 1.20% (n=25) have reported saving for other purposes such as clothes, luxuries, vehicles, etc. According to this analysis, people primarily invest in their children's education and marriage, followed by emergency savings, securing their retirement and reducing their tax liabilities. Significantly, a few people reported saving for vacations, gifts, clothes, luxuries, etc.

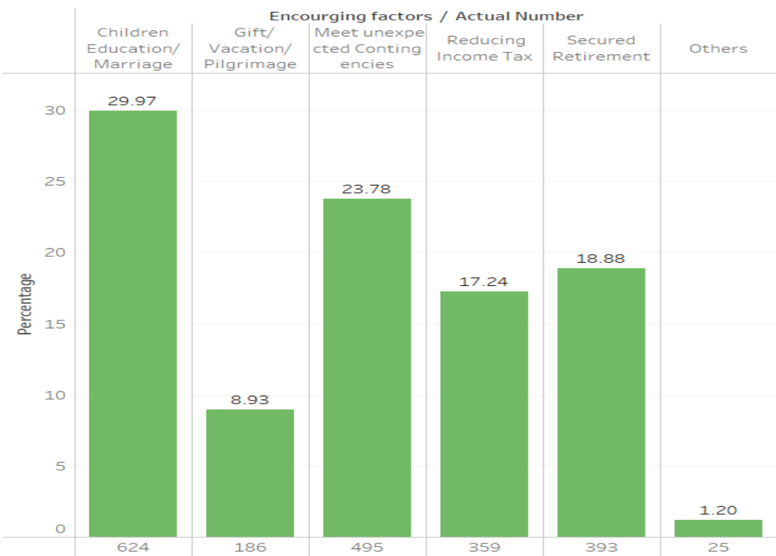

Figure 4.7: Encouraging Factors

Table 4.7: Encouraging Factors

Encouraging factors	Actual Number	Percentage
Children's Education/Marriage	624	29.97
Gift/Vacation/Pilgrimage	186	8.93
Meet unexpected Contingencies	495	23.78
Reducing Income Tax	359	17.24
Secured Retirement	393	18.88
Others	25	1.20

Figure 4.8 states the responses to the question 'Select the investment/saving alternatives you prefer to invest'. Respondents had the option of selecting multiple answers. According to the responses, 23.58% (602) prefer to save through bank FDs and RDs, whereas 19% (n=485) prefer to invest in mutual funds. 16.61% (n=424) want to invest in PPF, 15.32% (n=391) want to invest in gold, and 12.03% (n=307) wish to safeguard their future with current income through insurance and pension plans. 10.54% (n=269) want to put money into stocks or debentures. In the same scenario, 1.72% (n=44) of people are willing to invest in ETFs, whereas 1.21% (n=31) wish to invest by lending money to friends or other people. This analysis shows that most people are interested in parking money in less risky modes, i.e., bank FDs and RDs. Gold and PPF have also become people's choices apart from these mutual funds. Very few people are interested in investing in risky avenues like stocks and ETFs.

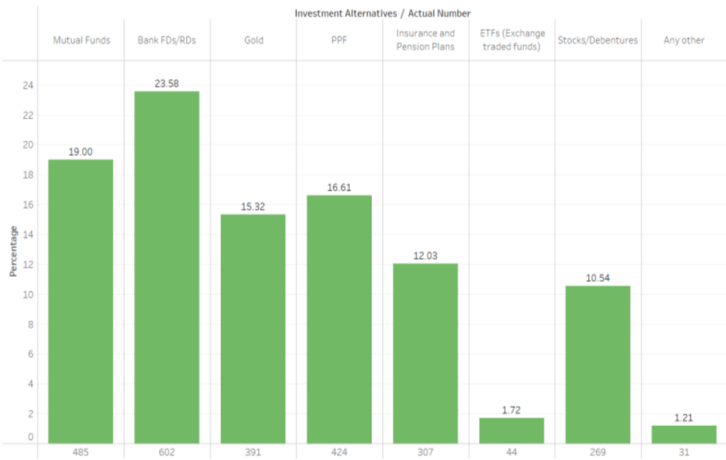

Figure 4.8: Investment Alternatives

Table 4.8: Investment Alternatives

Investment Alternatives	Actual Number	Percentage
Mutual Funds	485	19.00
Bank FDs/RDs	602	23.58
PPF	424	16.61
Gold	391	15.32
Insurance and Pension Plans	307	12.03
Stocks/Debentures	269	10.54
ETFs (Exchange-traded funds)	44	1.72
Any other	31	1.21

Fig. 4.9 stated the responses related to the question 'Select the sources of borrowing?' According to the responses, the majority of respondents (50%) (n=611) wish to be affiliated with banks to obtain loans, while 29.87% (n=365) still rely on family and friends. 8.10% (n=99) reported borrowing from their employers, while 6.55% (n=80) reported lending from other financial institutions. Only 4.58% (n=56) of respondents rely on private lenders, while 0.90% (n=11) borrow from different sources. According to this analysis, banks are trusted sources from which most individuals are willing to borrow. After banks, family is the next most popular option for raising finances, but private lenders and other financial institutions are the least preferred option among respondents.

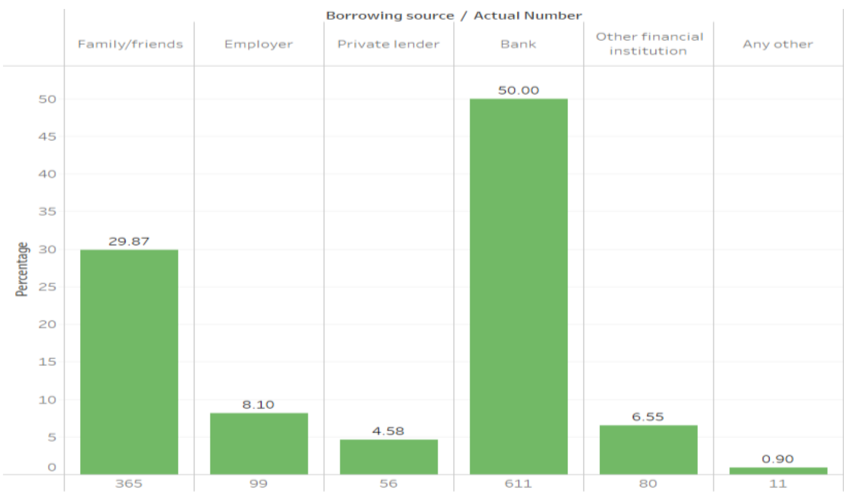

Figure 4.9: Borrowing Source

Table 4.9: Borrowing Source

Borrowing source	Actual Number	Percentage
Family/friends	365	29.87
Employer	99	8.10
Private lender	56	4.58
Bank	611	50.00
Other financial institution	80	6.55
Any other	11	0.90

Fig. 4.10 stated the responses to the question 'Select the barriers that may restrict you from investing?' According to the responses, most respondents (19.73% (n=353) cited a lack of expertise as an investment barrier. Apart from that, 18.28% (327) assumed lack of money, 15.32% (n=274) reported requirement of readily available cash, 15.04% (n=269) stated lack of trust, 14.92% (n= 267) raised the issue of the riskiness of investments, 13.14% (n=235) respondents do not assume anything as barrier but a very few people reported lack of documentation and 0.17% (n=3) says parental influence and religion, as the factors which plays important role as a barrier in investments. According to the findings, respondents believe that a lack of expertise, money, trust verification, and readily available cash are the primary obstacles preventing people from investing.

Figure 4.10: Investment barriers

Table 4.10: Investment Barriers

Investment barriers	Actual Number	Percentage
Requirement of readily available cash	274	15.32
Lack of knowledge	353	19.73
Lack of money	327	18.28
Lack of trust	269	15.04
Lack of documentation	61	3.41
Too risky	267	14.92
No restriction to invest	235	13.14
Any other	3	0.17

The results of the respondents' general saving habits are exhibited in the present chapter. The analysis revealed that people have started thinking about their future needs and investing in different avenues. However, due to inflation and skyrocketing product price levels, respondents cannot save more than 15000 Rs. a month, which is a small amount to cater for various future expenditures. As per traditional ideologies of our culture, bank accounts help to maintain saving levels. Respondents also reported having bank accounts for making transactions, using ATM facilities, and availing of loans from the banking system. Due to online banking, debit, and credit card availability, people prefer not to withdraw hard cash from banks and rely on e-money. People are now more informed about their finance management and gather information from various sources for investing money to achieve different financial goals at other times; apart from that, they also take advice from friends, media and financial experts.

People are motivated to save or invest because of future events like children's marriage, contingencies, avoiding taxes, and securing retirement. For this purpose, they invest in mutual funds, PPF, fixed deposits, ETFs, equities, etc, but are not investing in more risky alternative investment funds. People rely more on banks to take loans than their family or friends in case of need. People admit that lack of cash, financial knowledge, trust in institutions, risk factors, and not possessing required documents are the barriers to their investments.

Chapter – 5

FACTORS INFLUENCING FINANCIAL WELL-BEING

The current chapter demonstrates data analysis to identify factors affecting an individual's financial well-being. The steps taken to analyse the data are described in detail below. Following the establishment of the face validity as well as internal reliability (Cronbach alpha) of each of the constructs during the instrument pilot study, the next stage was to figure out the validities (convergent as well as discriminant), a step involved in instrument /scale validation via confirmatory factor analysis. CFA is a technique in the structural equation modelling (SEM) family. It investigates the link between exogenous/manifest (observed) variables and endogenous/latent (unobserved) variables. SEM helps to analyse the associations between endogenous variables and models them as correlations/covariances instead of structural links, i.e., regression (Gallagher & Brown, 2013). Construct validation and Scale validation are two typical applications of CFA (Gallagher & Brown, 2013). As a result, when performing CFA, it is necessary to determine the composite reliability of individual constructs and their convergent and discriminant validity.

After the pilot study, the following statements were considered for the final analysis.

Table 5.1: Sections of the Questionnaire

Sections of the questionnaire	Number of Questions/ Statements
Section I (General Questions)	10
Section II (Statements related to factors/ constructs/ variables)	55
Section III (Questions related to demographic variables)	6

5.1 OUTER LOADINGS

The measurement model's outer loadings represent the estimated relationships in the reflective measurements. The measurement model incorporates the unidirectional predictive link between the latent construct and its observable indicators. The strength of their relationship is denoted by 'r" or 'beta.' Table 5.1 shows each link's outer (indicator) loadings between the latent construct and its observed indicators. These measures are also utilised to compute each construct's AVE. The 'r'/'beta' of every relationship in the measurement model influences the value AVE and the construct's convergent validity. The indicators' loadings must be greater than 0.7 (Hair et al., 2011). Because the outer loading of the association between the observed item in multiple constructs and its latent construct attitude (ATT) was less than 0.7, some items need to be eliminated. Due to less value, this construct couldn't be considered in subsequent analyses. During this procedure, one item was removed from financial efficacy, seven items were removed from financial attitude, five were removed from financial behaviour, five were removed from financial inclusion, seven were removed from financial knowledge, and one was removed from financial well-being. Because the AVE of a single construct is computed as an average of all its squared outer loadings, it is proposed to eliminate every relationship whose outer loadings reduce the AVE of the corresponding construct (Hair et al., 2016). After deleting the items mentioned above from the conceptual model, the PLS algorithm was rerun, and the revised outer loadings of the connections between various items and their associated constructs are shown in Table 5.2.

5.2 COMPOSITE RELIABILITY

Internal consistency is when the respondent answers to the same instrument in identical or similar circumstances. Before collecting data from respondents, it is critical to ensure that the instrument used is consistent. There are numerous methods for determining the internal consistency of a measuring device. Cronbach alpha is one of the methods for determining internal consistency. Another method for testing internal consistency in items on the scale of each construct/variable addressed in the study work is composite reliability (CR). CR is considered more reliable than Cronbach alpha, a test to determine internal consistency. The reliability of the constructs/variables involved in the model is assessed when partial least squares (PLS) is used as the analysis approach (Aguirre-Urreta et al., 2013). The internal consistency of the measurement device was established in the current study using composite reliability. If the CR of each construct/factor/variable is greater than 0.7, the CR of that construct/factor/variable is established for the entire measuring instrument (Hair et al., 2016). The composite reliability was established when the CR value of each endogenous/exogenous variable was greater than 0.7 (table 5.2). The instrument's internal consistency was also demonstrated with the establishment of CR of the exogenous/endogenous variables of the current study. The same was done to pave the way for verifying the measuring instrument.

Table 5.2: Outer Loadings and Reliability Analysis Measurement

(after deletion of a few items)

Construct	Items	Loadings	Cronbach's Alpha	Composite Reliability
Attitude (ATT)	ATT3	0.758	0.669	0.804
	ATT4	0.79		
	ATT7	0.736		
	ATT8	0.547		
Financial Behavior (FIN_BEH)	BEH1	0.695	0.683	0.807
	BEH3	0.778		
	BEH6	0.619		
	BEH9	0.765		
Financial Efficacy (EFF)	EFF2	0.747	0.842	0.883
	EFF3	0.78		
	EFF4	0.765		
	EFF5	0.696		
	EFF6	0.712		
	EFF7	0.78		
Financial Inclusion (FIN_INC)	FIN_INC1	0.762	0.798	0.861
	FIN_INC2	0.799		
	FIN_INC3	0.713		
	FIN_INC5	0.678		
	FIN_INC7	0.762		

Construct	Items	Loadings	Cronbach's Alpha	Composite Reliability
Financial Well-being (FIN_WBNG)	FIN_WBNG1	0.798	0.877	0.907
	FIN_WBNG2	0.844		
	FIN_WBNG3	0.79		
	FIN_WBNG4	0.806		
	FIN_WBNG5	0.761		
	FIN_WBNG7	0.722		
Financial Knowledge (FKNW)	KNW4	0.748	0.732	0.831
	KNW5	0.796		
	KNW8	0.695		
	KNW9	0.729		

5.3 CONVERGENT VALIDITY

Convergent validity is proof of construct validity, which is required for scale validation. To be valid means "to be acceptable." The validity of a scale or instrument is the extent to which it measures what it is designed to measure (Krabbe, 2016). As a result, the data is expected to be gathered using a validated questionnaire. The first stage in creating scale validation is determining the convergent validity of the factors/constructs/endogenous/exogenous/ variables. Confirming an individual factor/construct's convergent validity demonstrates that personal construct/factor items are significantly connected (Chin & Yao, 2014). Convergent validity assures that the items used to measure the construct/factor/exogenous/endogenous variable are accurate. If the AVE of a specific concept is more than 0.5, the construct's convergent validity is proved (Fornell & Lacker, 1981). As a result, measuring the AVE of each construct is considered a measurement of that construct's convergent validity. The concurrent validity of each construct was determined by determining the AVE of each exogenous/endogenous variable to be greater than 0.5 (table 5.3), establishing the scale's validity.

Table 5.3: Convergent Validity Analysis

Variables	FIN_ATT	FIN_EFF	FIN_BEH	FIN_KNW	FIN_INCL	FIN_WEB
AVE	0.51	0.514	0.558	0.552	0.554	0.621

5.4 DISCRIMINANT VALIDITY

After establishing the constructs' convergent validity, the next step in scale validation was determining the scale's discriminant validity. The concept of discriminant validity was introduced by Campbell and Fiske (1959). It is meant to be established when different constructs do not correlate highly or are not firmly related (Hubley, 2014). If discriminant validity is not proved, it is found that some of the constructs are significantly correlated, contrary to the core notion of discriminant validity. If this is not confirmed, scale validation cannot be determined, and the scale in question cannot be utilised to gather data. The discriminant validity is assumed to be shown if the square root of the AVE of each construct on the diagonal is greater than the coefficient of correlation (off-diagonal) for every construct in the applicable rows and columns (Fornell & Lacker, 1981). However, discriminant validity is not proven if the square root of AVE for any of the constructs across the diagonal is less than the coefficient of correlation (off-diagonal) for any of the constructs in the applicable rows and columns. By deleting the item with the least significant beta value, the AVE of the relevant construct improves, assisting in the confirmation of discriminant validity. If discriminant validity cannot be determined after eliminating the item, delete the following items from the same construct to increase the AVE even further. The same applies to establishing discriminant validity. For each construct, the discriminant validity must be confirmed. Because the square root of the AVE (in bold) for each construct in the diagonal was greater than the correlation coefficients (off-diagonal) for every construct in the applicable rows and columns (table 5.4), discriminant validity was established (Fornell & Lacker, 1981).

Table 5.4: Discriminant Validity

	ATT	EFF	FIN_BEH	FIN_INC	FIN_WBNG	FKNW
ATT	**0.714**					
EFF	0.56	**0.747**				
FIN_BEH	0.597	0.545	**0.717**			
FIN_INC	0.473	0.38	0.546	**0.744**		
FIN_WBNG	0.573	0.679	0.536	0.459	**0.788**	
FKNW	0.562	0.52	0.52	0.616	0.555	**0.743**

5.5 HTMT (HETEROTRAIT-MONOTRAIT RATIO)

Formerly, the discriminant validity had been established using the criteria proposed by Fornell and Lacker (1981). However, some scholars criticised Fornell and Lacker's (1981) criteria, such as Henseler et al. (2016), who critiqued Fornell and Lacker's (1981) criteria in their publications. Henseler et al. (2016) recommended using the correlations' heterotrait-monotrait (HTMT) ratio to determine the construct's discriminant validity. The HTMT is defined as the mean value of the item correlations across constructs (i.e., heterotrait-heteromethod correlations) proportional to the (geometric) mean of the correlations that are averaged for the same construct (i.e., monotrait-heteromethod correlations). Kline (2015) offered a 0.85 HTMT ratio threshold value to establish discriminant validity, while (Hair et al., 2019; Gold et al., 2001) proposed an even more liberal value of 0.90 for confirming discriminant validity. The discriminant validity of the constructs was established because the HTMT ratio between them was smaller than the acceptable limit of 0.9 (Gold et al., 2001) (table 5.4). The values marked in yellow exceeded the 0.85 threshold (Kline, 2015). Thus, the discriminant validity was not established based on Kline's (2015) criteria value. Still, because these values were smaller than 0.90 (Gold, 2001), the discriminant validity was established among the constructs, and the HTMT ratios among other constructs were even, i.e. less than 0.85 (table 5.5).

Table 5.5 : HTMT (Heterotrait-Monotrait Ratio)

	ATT	EFF	FIN_BEH	FIN_INC	FIN_WBNG	FKNW
ATT						
EFF	0.739					
FIN_BEH	0.872	0.701				
FIN_INC	0.655	0.457	0.741			
FIN_WBNG	0.74	0.789	0.681	0.542		
FKNW	0.806	0.643	0.721	0.799	0.674	

After determining the construct's discriminant validity, the next step was to perform collinearity diagnostics, which tested the multicollinearity among the exogenous variables of the models. Finally, the collinearity analysis of the conceptual model was performed after establishing the discriminant validity using the Fornell and Lacker criteria and the HTMT criteria presented by Henseler et al. (2016).

5.6 COLLINEARITY DIAGNOSIS

Scale validation requires the diagnosis of collinearity/ multicollinearity. Multicollinearity is the presence of high correlation values between independent variables and predictors (Belsley et al., 1980). The measurement device cannot be validated in the present scenario (Allen, 1997). As a result, there must be no collinearity between the predictor variables of the measurement models to verify the scale. Different diagnostic procedures assess multicollinearity among predictor/independent/exogenous variables. Variation inflation factor (VIF) is one of the most essential tools for determining multicollinearity (Kim, 2019). According to Kim (2019), a VIF number between 5 and 10 indicates a problem with multicollinearity in the scale. Based on this, it can be inferred that if the value of VIF is less than 5, the possibility of multicollinearity across predictor variables is ruled out, which is critical for scale validation (Hair et al., 2011; Kock & Lynn, 2012). Tolerance value is another method for diagnosing multicollinearity. According to Hair et al. (2011), multicollinearity has no problem if the tolerance value exceeds 0.2.

Table 5.6 shows that the VIF values of all predictor/independent/exogenous variables are less than 5. Hence, it shows no high correlation values between independent variables and predictors.

Table 5.6: Collinearity Diagnosis

Items	ATT3	ATT4	ATT7	ATT8		
VIF	1.505	1.537	1.308	1.094		
Items	BEH1	BEH3	BEH6	BEH9		
VIF	1.298	1.421	1.23	1.401		
Items	EFF2	EFF3	EFF4	EFF5	EFF6	EFF7
VIF	1.645	1.886	1.727	1.531	1.515	1.752
Items	FIN_INC1	FIN_INC2	FIN_INC3	FIN_INC5	FIN_INC7	
VIF	1.625	1.755	1.418	1.42	1.597	
Items	KNW4	KNW5	KNW8	KNW9		
VIF	1.424	1.405	1.35	1.435		
Items	FIN_WBNG1	FIN_WBNG2	FIN_WBNG3	FIN_WBNG4	FIN_WBNG5	FIN_WBNG7
VIF	2.041	2.482	2.039	2.09	1.786	1.618

5.7 STRUCTURAL/ PATH MODEL

The path model exemplifies the connection between predictive (independent) and latent (dependent) variables. The conceptual model depicts the relationship between the variables based on a thorough review of the literature and the underlying theoretical frameworks. The structural model is based on the path coefficients' significance and relevance and the models' predictive (Q^2) and explanatory power (R^2). According to (Ali et al., 2018; Ringle et al., 2020), model evaluation is based on criteria that measure the path model's explanatory power. Researchers commonly use the coefficient of determination (R^2) to determine the significance and relevance of correlations between latent and predictive variables. The importance and relevance of the relationships between the variables must be determined and established before measuring and analysing the model's explanatory power. In PLS-SEM, the same is done with bootstrapping. According to Wong (2013), the relevance and significance of a relationship are considered to be established if the path coefficient has a t statistic of greater than 1.96 with a two-tailed t-test at a 95% confidence level. In this study, the relationship between the dependent and independent variables was significant since the t statistics for all relationships were more than 1.96 (Table 5.7). T statistics also verified the rejection of null hypotheses as greater than 1.96 and the acceptance of alternative hypotheses.

Table 5.7: Hypotheses Testing

	Original Sample (O)	**Sample Mean (M)**	**Standard Deviation (STDEV)**	**T Statistics T Statistics (|O/STDEV|)**	**P Values**	**Result**
ATT -> FIN_BEH	0.348	0.347	0.038	9.18	0*	Significant
EFF -> FIN_BEH	0.249	0.249	0.037	6.663	0*	Significant
FIN_BEH -> FIN_INC	0.546	0.549	0.029	19.128	0*	Significant
FIN_BEH -> FIN_WBNG	0.407	0.409	0.035	11.528	0*	Significant
FIN_INC -> FIN_WBNG	0.236	0.237	0.038	6.204	0*	Significant
FKNW -> FIN_BEH	0.195	0.199	0.034	5.78	0*	Significant

* Acceptable at 95%

The alternative hypothesis and the corresponding relationships were likewise accepted because the t statistics for the relationships were more than 1.96. The t statistics for the relationship between ATT→FIN_BEH were 9.18. It confirmed the significant role of attitude (ATT) in developing financial behaviour (FIN_BEH). Similarly, financial efficacy (EFF) has a strong influence on developing financial behaviour (FIN_BEH), with a t statistic of 6.663. financial behaviour (FIN_BEH) also played a significant role in developing financial inclusion (FIN_INC), with a t-statistic of 19.128. Financial behaviour (FIN_BEH) also played a substantial effect in building an individual's financial wellness (FIN_WBNG), as the association had a high value of t statistics (11.528). Similarly, the t statistic for the association between financial inclusion (FIN_INC) and financial well-being (FIN_WBNG) was 6.204, indicating that the relationship was significant. Financial knowledge (FKNW) and financial behaviour (FIN_BEH) are strongly related, with a t-statistic of 5.78. Hence, all the associations were significant because their t-stats were greater than 1.96, which is necessary to demonstrate that the null hypothesis was rejected and the alternative hypothesis was accepted. As a result, the following 'alternative hypothesis' was accepted.

Table 5.8: Hypotheses Results

Alternate Hypothesis	Status
H1: There is a significant relationship between financial attitude and financial behaviour.	Accepted
H2: There is a significant relationship between financial efficacy and financial behaviour.	Accepted
H5: There is a significant relationship between financial behaviour and financial well-being.	Accepted

5.8 COEFFICIENT OF DETERMINATION (R^2)

The coefficient of determination determines how well the independent variables reflect variability in the dependent variable and defines the model's prediction accuracy. R^2 is the coefficient of determination, denoted in '%.' The R^2 measures the amount of variance explained by each endogenous variable. As a result, the same is used to assess the model's explanatory power (Shmueli & Koppius, 2011). The greater the value of R^2, the more the variability in the dependent variable explained by the independent variable/s. R^2 values of 0.25, 0.5, and 0.75 define the model's explanatory power, which is classified as weak, moderate, or significant (Hair et al., 2011; Henseler et al., 2009). The ranges suggested by Hair et al. (2011) and Henseler et al. (2009) were used for the current study. The coefficient of determination for the model was provided in Table 5.7, wherein the independent variables ATT and EFF were able to predict 44.4% of the variability in the dependent variable FIN_BEH (financial behaviour). The independent variable FIN_BEH (financial behaviour) predicted 29.7% of the variability in the dependent variable FIN_INC (financial inclusion). Meanwhile, the independent variable 'FIN_BEH' (financial behaviour) could again predict 32.5% of the dependent variable 'FIN_WBNG' (financial well-being) variability.

5.9 CROSS-VALIDATED REDUNDANCY MEASURE (Q^2) (PREDICTIVE RELEVANCE)

The coefficient of determination (R^2) is not the only metric for evaluating the model's explanatory capacity. The Q^2 value (Geisser, 1974) is another technique to assess the predicting accuracy of the PLS path model. The blindfolding technique in PLS-SEM is used to calculate the value of Q^2. Blindfolding is a re-use technique for eliminating data points. The blindfolding technique necessitates an omission distance denoted as ‘D’. Hair et al. (2016) state that D (omission distance) can range from 5 to 12. D's default value is seven, but D's value must be such that when the value of 'D' is divided by the sample size 'n,' the quotient is not a whole number. The quotient of 'D' and the sample size must be expressed only in fractions. As a result, it was proposed that the quotient be checked before proceeding with the blindfolding procedure. According to Sarstedt et al. (2017), the predictive importance of an exogenous construct for a given endogenous construct is denoted by Q^2 values of 0.02, 0.15, and 0.35, as small, medium, or large predictive relevance, respectively. Because the Q^2 for the endogenous variable 'FIN_BEH' was 0.222, ‘FIN_INC’ was 0.164 and for ‘FIN_WBNG’ was 0.199 (Table 5.9), the predictive importance for all variables was considered medium. (Sarstedt et al., 2017; Bin-Nashwan et al. 2019). It established the predictive relevance of factors (ATT, EFF) on FIN_BEH. Similarly, the predictive relevance of factors (FIN_BEH) on FIN_INC and FIN_WBNG was also established.

Table 5.9: Coefficient of Determination (R^2) and Cross Validated Redundancy Measure (Q^2)

	R Square	R Square Adjusted	Result	SSO	SSE	Q^2 (=1-SSE/SSO)	Predictive Relevance
FIN_BEH	0.445	0.444	Moderate	4400	3421.321	0.222	Medium
FIN_INC	0.298	0.297	Weak to Moderate	5500	4599.728	0.164	Medium
FIN_WBNG	0.327	0.325	Weak to Moderate	6600	5283.342	0.199	Medium

5.10 EFFECT SIZE OF EXOGENOUS VARIABLES OF ENDOGENOUS VARIABLE (F^2)

The effect size represents the magnitude of the association between the independent and dependent variables. It is not the same as evaluating the significance of correlations based on p-values or t-statistics. The interpretation of the significance of correlations based on p-values or t-statistics is heavily criticised. As a result, a significant interpretation based on effect size (f^2) is used (Nakagawa & Cuthill, 2007). To establish the significance of the correlations, the researchers provide both t-statistics and f^2 (Fidler et al., 2005; Huberty, 2002). The effect size (f^2) establishes whether or not the independent factors cause a substantial change in the dependent variable. T-statistics highlight the relationship's significance or non-significance, whereas f^2 establishes the effect of the independent variable on the dependent variable. According to Cohen (1988), there are three impact sizes: weak, medium, and high, which are represented by f^2 values ranging from less than 0.02 (negligible effect) through 0.02 to 0.15 (weak effect), 0.15-0.35 (medium), and greater than 0.35 (strong). The effect size of every independent variable (ATT, EFF, FKNW) on the dependent variable (FIN_BEH) had been given in Table 5.10, wherein it was evident that financial attitude has medium and financial efficacy and financial knowledge has a weak effect on financial well-being. In the same way, financial behaviour has a strong impact on financial inclusion and financial well-being. In the same way, financial inclusion has a weak effect on financial well-being.

Table 5.10: Effect Size (f^2) of Exogenous Variables on Endogenous Variable

	ATT	EFF	FIN_BEH	FIN_INC	FIN_WBNG	FKNW
ATT			0.128 (M)			
EFF			0.07 (W)			
FIN_BEH				0.425 (S)	0.173 (S)	
FIN_INC					0.058 (W)	
FIN_WBNG						
FKNW			0.043 (W)			

It was established that the relationships between independent variables like ATT, EFF, FIN_BEH, FIN_INC, FKNW and the dependent variable FIN_WGNG were significant. In addition, the relationships between the antecedents (ATT, EFF, FKNW) of FIN_BEH and FIN_WBNG were substantial. The model's coefficient of determination (R2) was also found to be medium, and the predictive relevance of the models was also found to be weak to moderate. The effect size of some of the relationships was either weak or medium. Still, since the relationships were found to be significant, with predictive relevance being substantial, the less-than-expected value of f^2 was acceptable.

The results about the factors influencing financial well-being are exhibited in the present chapter. The analysis started by establishing the scale's convergent and discriminant validity and then by ascertaining the significance of the relationships in the conceptual model. The coefficient of determination and the predictive relevance of the model were also computed and found to be within the acceptable acceptance limits. The data analysis revealed that financial attitude, efficacy, behaviour, knowledge, and inclusion significantly impact an individual's financial well-being. Among the predictors of financial behaviour, financial attitude impacts more on financial behaviour as compared to financial efficacy, and financial behaviour is also an essential factor for financial wellbeing (having a strong effect (f^2), followed by financial inclusion (as per table 5.8). The relationships between the predictor variables and the predicted variable were significant.

The results about the factors influencing an individual's financial well-being are exhibited in the present chapter. The analysis started by establishing the scale's convergent and discriminant validity and then by ascertaining the significance of the relationships in the conceptual model. The coefficient of determination and the predictive relevance of the model were also computed and found to be within the acceptable acceptance limits. The data analysis revealed that the predictors of financial attitude, financial efficacy, financial knowledge, financial behaviour and financial inclusion influence an individual's financial well-being. Among the predictors, financial attitude influences financial behaviour more than financial efficacy. The relationships between the predictor variables and the predicted variable were significant. Hence, the government and educational and financial institutions must work on enhancing people's financial attitude and investment capability to increase their investment levels, which will result in positive financial behaviour of individuals. Work should also be done to impart financial knowledge to fellow citizens so that they can understand financial management and effectively invest according to their needs.

Chapter – 6

MODERATION

When two constructs have a relationship that is not constant and instead depends on the values of a third variable called a moderator variable, this is referred to as a moderate situation. Similarly, when a third variable modifies the direction or intensity of the association between a predictor and an outcome variable, this is known as moderation. Homburg and Giering (2001) have demonstrated in their study that there are differences in the link between customer satisfaction and customer loyalty depending on the consumers' age or income. They found that income has a pronounced negative effect on the satisfaction-to-loyalty relationship – the higher the income, the weaker the relationship between satisfaction and loyalty. The study's conclusion states that income is a moderator variable that accounts for heterogeneity in the data. It means that the satisfaction-to-loyalty relationship is not the same for all customers; it differs depending on the income level.

6.1 TYPES OF MODERATOR VARIABLES

Moderators can be present in structural models in different forms. They can represent observable traits, such as gender, age, or income (categorical). However, they can also mean unobservable characteristics, such as risk attitude, attitude toward a brand, or ad liking (continuous). The most critical differentiation, however, relates to the moderator's measurement scale, which involves distinguishing between categorical (typically dichotomous) and continuous moderators. Continuous moderators are usually measured with multi-item constructs. In the present study, the variable financial knowledge (FKNW) (MV, ‘moderating variable’) acts as a moderator among the relationships between financial efficacy (EFF) (IV2, ‘independent variable 2’) 'n' financial behaviour (FIN_BEH) (DV, ‘ dependent variable’) and financial attitude (ATT) (IV1, ‘independent variable 1’) 'n' financial behaviour (FIN_BEH) (DV). All the variables are continuous as various items calculate them.

6.1.1 Modelling Moderating Effects

To gain an understanding of how moderating effects are modelled, consider the path model shown in Fig. 6.1. This model illustrates that financial knowledge serves as a moderator variable (MV), influencing the relationships between financial attitude (IV1) 'n' financial behaviour (DV) and financial efficacy (IV2) 'n' financial behaviour (DV). As can be seen, moderation is somewhat like mediation, in that a third variable (i.e., a mediator or moderator variable) affects the strength of a relationship between two latent variables. The crucial distinction between both concepts is that the moderator variable does not depend on the exogenous construct. In contrast, with mediation, there is a direct effect between the exogenous construct and the mediator construct (Memon et al., 2018).

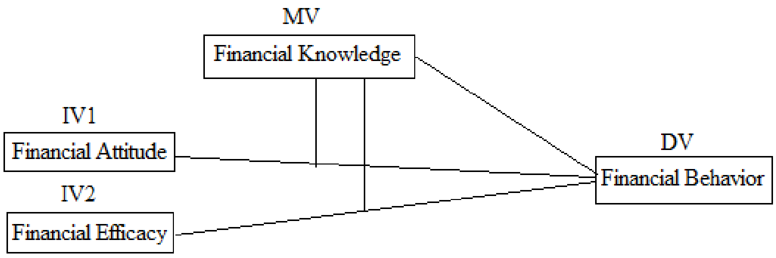

Figure 6.1: Path model highlighting Moderation

6.1.2 Creating the Interaction Term

Including the moderator in a PLS path model is termed an interaction. (Fig 6.2)

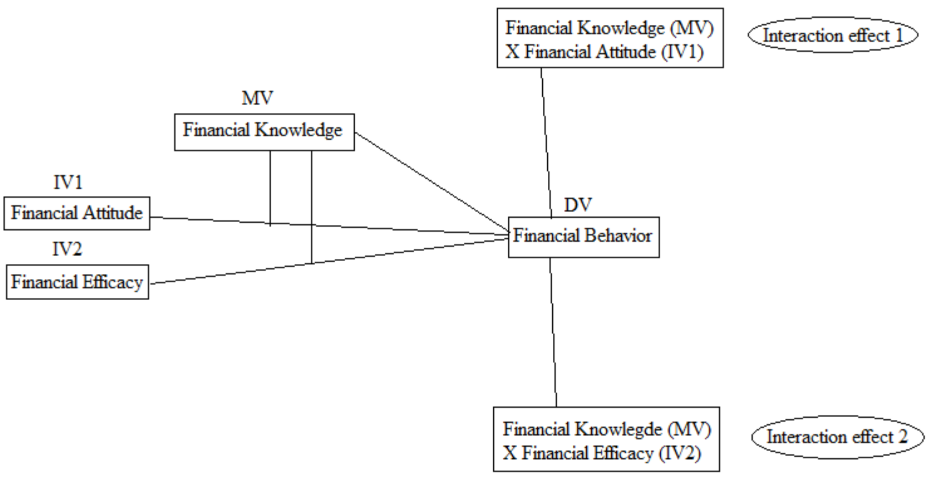

Figure 6.2: Interaction Effect

Research has proposed three primary approaches for creating the interaction term: (1) the product indicator approach, (2) the orthogonalizing approach, and (3) the two-stage approach. In the present research work, the product indicator approach is adopted as the most comprehensive and elaborative while undergoing the interaction effect in the moderation analysis.

It is always important to consider the standard criteria for structural model assessment. In moderation, particular attention should be paid to the f^2 effect size of the interaction effect (Hair et al., 2019; Memon et al., 2018). This criterion enables an assessment of the change in the R2 value when an exogenous construct is omitted from the model. Regarding the interaction effect, the f2 effect size indicates how much moderation contributes to explaining the endogenous construct. General guidelines for assessing f^2 suggest values of 0.02, 0.15, and 0.35 represent small, medium, and large effect sizes, respectively (Cohen, 1988). However, Aguinis et al. (2005) have shown that the average effect size in moderation tests is only 0.009. Against this background, Kenny (2008) proposes that 0.005, 0.01, and 0.025 constitute more realistic standards for small, medium, and large effect sizes of moderation but also points out that even these values are optimistic.

6.1.3 Result Interpretation

When interpreting the results of a moderation analysis, the primary focus is the significance of the interaction term. If the interaction term's effect on the endogenous construct is significant, we conclude that the moderator MV has a significant moderating effect on the relationship between IV and DV. The bootstrapping procedure facilitates this assessment. Table 6.1 highlights the interaction effect of MV (FKNW) on the relationship between the IV1 (ATT) and DV (FIN_BEH).

Table 6.1: Interaction effect of FKNW on the relationship between ATT and FIN_BEH

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
ATT -> FIN_BEH	0.337	0.338	0.04	8.408	0*
EFF -> FIN_BEH	0.249	0.245	0.039	6.452	0*
FIN_BEH -> FIN_INC	0.546	0.549	0.027	20.108	0*
FIN_BEH -> FIN_WBNG	0.406	0.408	0.034	11.8	0*
FIN_INC -> FIN_WBNG	0.237	0.236	0.037	6.478	0*
FKNW -> FIN_BEH	0.186	0.187	0.035	5.376	0*
Moderating Effect 1 -> FIN_BEH	0.081	0.096	0.023	3.569	0*

*Acceptable at 95%

The relationship between attitude and financial behaviour is thought to be strengthened in the presence of financial knowledge, as indicated by the t-statistics for the interaction effect (Moderating Effect 1 → FIN_BEH) of 3.569 (p-value=0). It is also suggested that financial knowledge moderates the relationship between attitude and financial behaviour. In other words, it can be argued that a person will exhibit more favourable financial behaviour if they possess both financial attitude and knowledge.

Table 6.2 highlights the interaction effect of MV (FKNW) on the relationship between the IV2 (EFF) and DV (FIN_BEH).

Table 6.2: Interaction effect of FKNW on the relationship between EFF and FIN_BEH

	Original Sample (O)	**Sample Mean (M)**	**Standard Deviation (STDEV)**	**T Statistics (|O/STDEV|)**	**P Values**
ATT -> FIN_BEH	0.357	0.359	0.039	9.265	0*
EFF -> FIN_BEH	0.233	0.229	0.036	6.445	0*
FIN_BEH -> FIN_INC	0.546	0.546	0.027	19.882	0*
FIN_BEH -> FIN_WBNG	0.407	0.41	0.034	12.01	0*
FIN_INC -> FIN_WBNG	0.236	0.234	0.037	6.464	0*
FKNW -> FIN_BEH	0.179	0.179	0.032	5.57	0*
Moderating Effect 2 -> FIN_BEH	0.134	0.124	0.092	1.452	0.147

*Acceptable at 95%

Given that the t-statistics for the interaction effect (Moderating Effect 2→FIN_BEH) are 1.452, and the p-value is more than 0.05, it is assumed that financial knowledge does not moderate the relationship between financial efficacy and financial behaviour. Hence, it is established that financial knowledge does not affect the relationship between financial efficacy and financial behaviour. Put another way, it can be said that financial efficacy will have a similar impact on a person's financial behaviour regardless of their level of financial knowledge.

Table 6.3 : Hypothesis Results

Alternate Hypothesis	Status
H3: There is a significant effect of financial knowledge on the relationship between financial efficacy and financial behaviour.	Rejected
H4: There is a significant effect of financial knowledge on the relationship between financial attitude and financial behaviour.	Accepted

6.2 MEDIATION EFFECT

The fundamental rule of mediation analysis is that it presupposes a chain of interactions in which an antecedent variable influences a mediating variable, which controls a dependent variable. When such an impact exists, mediation can be a valuable statistical study if adequately supported by theory and carried out correctly. MacKinnon et al. (2007) state that "mediation is one way that a researcher can explain the process or mechanism by which one variable affects another."

The basic premise and the steps to be followed in doing the mediation analysis were suggested by Baron and Kenny (1986). Most researchers, in their work for mediation analysis, followed the steps of Baron and Kenny (1986). The core characteristic of mediation suggests that a third variable influences the relationship between the independent (X) and dependent (Y) variables. The mediating variable may be represented by (M). Baron and Kenny (1986) suggested a set of rules that must be accepted to establish the concept of mediation. Preacher and Hayes (2008) summarised this approach as follows: "Variable M is a mediator if X significantly accounts for variability in M, X significantly accounts for variability in Y, M significantly accounts for variability in Y when controlling for X, and the effect of X on Y decreases substantially when M is entered simultaneously with X as a predictor of Y." The set rules for establishing the mediation suggested by Baron and Kenny (1986) have been adopted and followed by many researchers in their mediation works, but lately, many researchers have criticised the rules of Baron and Kenny (1986) in their works (Preacher & Hayes, 2008; Zhao et al., 2010). The rules suggested by Baron and Kenny (1986) do not hold in conditions when the mediation is competitive (mediation direction differs from the direction of the relationship between the independent and dependent variable) (Zhao et al., 2010).

The steps involved in the regression analysis required many-step calculations that may lead to biases in the mediation analysis; hence, the PLS-SEM is used to analyse the mediation effect as it involves the single path model analysis to test the mediation effect.

The decision tree suggested by Zhao et al. (2010) is followed to study the mediation effect in the present study. The three-step process was followed to study the mediation effect of financial inclusion (mediator) on the direct relationship between financial behaviour (independent variable) and financial well-being (dependent variable). The three points for testing mediating effects in PLS (Preacher & Hayes, 2008; Shrout & Bolger, 2002; Zhao et al., 2010) are as follows:

- First, testing the indirect effect $a \times b$ provides researchers with all the information for testing mediation.
- Second, the strength of the indirect effect $a \times b$ should determine the size of the mediation.
- Third, a bootstrap test should be used to test the significance of the indirect effect $a \times b$.

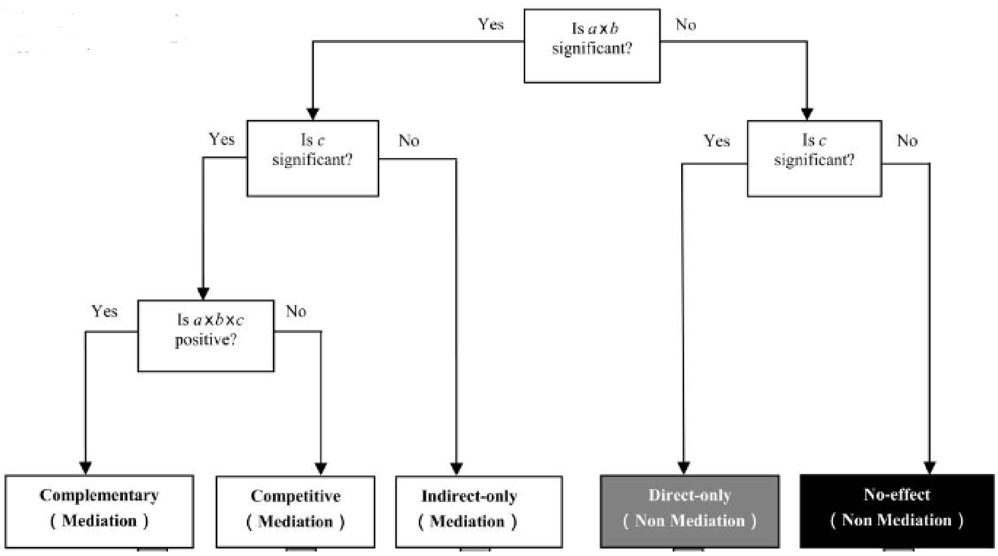

Figure 6.3: Adapted from Zhao et al. (2010)

6.2.1 Steps in the Mediation Process

Step 1: Determining the significance of indirect effects

In Step 1, the indirect effect is tested for significance. The indirect impact of mediation is, in its most basic form, the product of the two paths that the mediator constructs M used to reach the target construct Y (path b) and the source construct X (path a). The bootstrapping procedure is used to establish the significance of the indirect effect.

A non-parametric inferential approach called bootstrapping randomly selects several subsamples (for instance, 5,000) from the original dataset. Bootstrapping- an indirect impact data sample is required to learn more about population distribution- is the foundation for hypothesis testing. The data for each measurement item are bootstrapped in the first stage of a PLS. The underlying PLS path model is estimated using the bootstrapped results separately in the following phase. For the inner path model, the distribution of the route coefficients is provided by the various model estimations.

Step 2: Determining the type of effect of mediation

Step 2 (Figure 6.5) involves defining the type of effect and mediation. When the indirect impact 'a x b' in step 1 is significant, a mediating effect is always present. The two types of mediation currently covered in the literature on mediation are complete and partial mediation. Complementary and competitive partial mediation are two more divisions of partial mediation. Mediation is complementary when the indirect and direct effects are significant and point in the same direction. In contrast, it is called Competitive when the indirect and direct effects are substantial but point in opposite directions (Nitz et al., 2016).

a) Full mediation

Complete mediation is indicated where the direct effect c' is not significant, whereas the indirect effect $a \times b$ is significant, which means only the indirect effect via the mediator exists. In other words, complete mediation means that the impact of the variable X to Y is completely transmitted with the help of another variable M. It also represents the condition Y completely absorbs the positive or negative effect of X. Technically speaking, the unstable X extracts his influence only under a specific condition of M on Y.

b) Partial mediation

All other situations under the condition that both the direct effect c' and the indirect effect a × b are significant represent partial mediation. Two types of partial mediations can be distinguished:

i. Complementary Partial Mediation

In a complementary partial mediation, the direct effect c' and indirect effect a × b point in the same (positive or negative) direction (Baron & Kenny, 1986). It is an often-observed result that a × b and c' are significant and a × b × c' is positive, which indicates that a portion of the effect of X on Y is mediated through M. In contrast, X still explains a portion of Y independent of M. This complementary mediation hypothesis suggests that the intermediate variable explains, possibly confounds, or falsifies the relationships between the independent and dependent variables. Complementary partial mediation is often called a 'positive confounding' or a 'consistent' model (Zhao et al., 2010).

ii. Competitive Partial Mediation

In a competitive partial mediation, the direct effect c' and indirect effect a × b point in a different direction. A negative a × b × c' value indicates the presence of competitive mediation in Step 2 (Figure 6.5). As mentioned above, this suggests that a portion of the effect of X on Y is mediated through M, whereas X still explains a portion of Y that is independent of M. In the past, researchers often focused only on complementary mediation (Zhao et al., 2010). The competitive partial mediation hypothesis assumes that the intermediate variable will reduce the magnitude of the relationship between the independent and dependent variables. Competitive partial mediation is often called a 'negative confounding' or an 'inconsistent'.

Step 3: Assessing the strength of mediation

The researchers might also be interested in evaluating the strength (portion) in case of a partial mediation. Mediation analysis regularly involves partial mediation, so it can be helpful to have further information on the mediated portion. One approach for this is calculating the ratio of the indirect-to-total effect. This ratio is the variance accounted for (VAF) value. VAF determine the extent to which the mediation process explains the dependent variable's variance.

$$VAF = \frac{a \times b}{a \times b + c'}.$$

where a x b = specific indirect effect

a x $b + c'$ = total effect

Cohen (1988) found that identifying a significant indirect effect (a × b) is always more effective than finding a direct effect (c). The basic guideline is that if the VAF is less than 20%, essentially no mediation happens; a VAF more than 20% but less than 80% could be regarded as partial mediation (Hair et al., 2016) ; and a VAF larger than 80% indicates complete mediation.

In the present study, the independent variable' financial behaviour 'was represented as 'X', the dependent variable' financial well-being' was represented as 'Y,' and the variable' financial inclusion ' acted as a mediator and was represented as 'M' (refer to Figures 7.3 and 7.4).

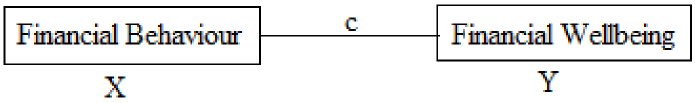

Fig 6.4: Direct Effect

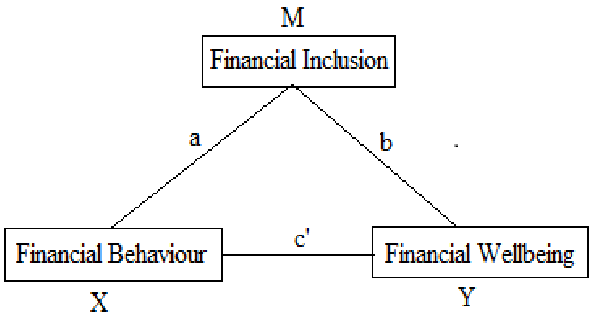

Fig. 6.5: Indirect effect in the presence of financial inclusion as a mediator

In the first step, the significance of the indirect effect of the mediator on the path of the direct effect was ascertained (FIN_BEH → FIN_INC →FIN_WBNG, *t*-stats=6.029, p-value=0). The same was found to be significant, as highlighted in Table 6.4

Table 6.4 Specific Indirect Effect

Relationships	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
FKNW -> FIN_BEH -> FIN_WBNG	0.079	0.082	0.016	4.878	0
FKNW -> FIN_BEH -> FIN_INC -> FIN_WBNG	0.025	0.026	0.006	4.081	0
FIN_BEH -> FIN_INC -> FIN_WBNG	0.129	0.13	0.021	6.029	0

Relationships	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
EFF -> FIN_BEH -> FIN_INC	0.136	0.136	0.02	6.857	0
EFF -> FIN_BEH -> FIN_WBNG	0.101	0.102	0.019	5.37	0
ATT -> FIN_BEH -> FIN_WBNG	0.142	0.142	0.019	7.303	0
FKNW -> FIN_BEH -> FIN_INC	0.107	0.11	0.021	4.97	0
ATT -> FIN_BEH -> FIN_INC -> FIN_WBNG	0.045	0.045	0.009	4.966	0
ATT -> FIN_BEH -> FIN_INC	0.19	0.19	0.024	7.955	0
EFF -> FIN_BEH -> FIN_INC -> FIN_WBNG	0.032	0.032	0.007	4.586	0

After establishing the mediation effect of financial inclusion on the relationship between financial behaviour and financial well-being, the next step was to ascertain the strength of mediation. The strength of the mediation was determined using the VAF method (variance accounted for). The formula for calculating the VAF is as follows:

$$VAF = \frac{a \times b}{a \times b + c'}.$$

The specific indirect effect is highlighted in Table 6.3; the value is 0.129. The total effect was highlighted in Table 6.5, and the value was 0.536.

Table 6.5: Total Effect

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
ATT -> FIN_BEH	0.345	0.346	0.04	8.693	0
ATT -> FIN_INC	0.188	0.19	0.025	7.56	0
ATT -> FIN_WBNG	0.185	0.186	0.023	8.148	0
EFF -> FIN_BEH	0.25	0.251	0.038	6.621	0
EFF -> FIN_INC	0.137	0.137	0.02	6.83	0
EFF -> FIN_WBNG	0.134	0.135	0.022	6.223	0
FIN_BEH -> FIN_INC	0.546	0.547	0.029	18.917	0

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
FIN_BEH -> FIN_WBNG	0.536	0.537	0.024	22.785	0
FIN_INC -> FIN_WBNG	0.236	0.237	0.036	6.533	0
FKNW -> FIN_BEH	0.191	0.19	0.034	5.56	0
FKNW -> FIN_INC	0.104	0.104	0.021	4.855	0
FKNW -> FIN_WBNG	0.102	0.102	0.02	5.129	0

$$VAF = \frac{0.129 \text{ (Specific Indirect Effect)}}{0.536 \text{ (Total Effect)}}$$

$$VAF = 0.24 = 24\%$$

As per the thumb rule, if the VAF value is greater than 20% and less than 80%, the same indicates a case of partial mediation (Danks, 2021). Given the VAF value of 24%, it is easy to claim that financial inclusion partially mediates the direct association between financial behaviour and financial well-being. Since the direction for the indirect effect is the same as that of the direct effect, it can be posited that the present study has a partial complementary mediation.

Table 6.6: Hypothesis Results

Alternate Hypothesis	Status
H6: There is a significant relationship between financial behaviour and financial inclusion.	Accepted
H7: There is a significant relationship between financial inclusion and financial well-being.	Accepted
H8: Financial inclusion significantly mediates the relationship between financial behaviour and well-being.	Accepted

This chapter explained the moderation and mediation analysis in the conceptual model. When two constructs have a relationship that is not constant and instead depends on the values of a third variable called a moderator variable, this is referred to as a moderate situation. In the current study, the interaction term's influence on the endogenous construct is considerable; we infer that the moderator MV (financial knowledge) has a significant moderating effect on the link between IV (financial attitude) and DV (financial conduct). However, in the instance of IV (financial efficacy), the influence of the interaction term on the endogenous construct is minimal. It was determined that financial knowledge only moderates the association between financial attitude and financial behaviour, not the link between financial efficacy and financial behaviour.

Mediation analysis presupposes a chain of interactions in which an antecedent variable influences a mediating variable, which controls a dependent variable. Results are interpreted based on the value of the VAF (variance accounted for). As per the thumb rule, if the VAF value is greater than 20% and less than 80%, the same indicates a case of partial mediation (Danks, 2021). In the current study, the VAF value is 24%, implying that financial inclusion partially mediates the direct association between financial behaviour and financial well-being.

Chapter – 7

MULTIGROUP ANALYSIS

The current chapter demonstrates data analysis to investigate the moderating effect of demographic characteristics such as gender, education, income and age on individuals' financial well-being. Furthermore, the chapter describes the procedures for determining whether the demographic variables of gender, education, income and age moderate the relationships that lead to an individual's financial well-being through financial behaviour and financial inclusion.

7.1 MULTIGROUP ANALYSIS (MGA)

Most academics today are sceptical of the presumption of homogeneity in the sample from which the data was obtained. As a result, several scholars have begun to discuss heterogeneity, in which perceptions and evaluations with variability among items and services generate market segmentation. Chin and Dibbern (2010) discussed ignoring heterogeneity and emphasised that ignorance of the same frequently leads to dubious results. Many studies have established in recent years that data collected from the population is considered homogeneous, repeatedly failing to analyse if subgroups in the data have significant deviations among themselves. As a result, this concern can be addressed using the Multigroup analysis (MGA) approach suggested by many current researchers (Hair et al., 2017).

MGA, also known as between-group analysis, is a method for detecting significant changes in group-specific parameter estimates (e.g., outer loadings, outer weights, and path coefficients) among specified (also known as a priori) data groups (Hair et al., 2017). When the groups are known, researchers can compare two identical models. MGA analysis in Smart PLS 3.2.9 is one of the most practised methods for assessing moderation among the data's multiple subgroups. The data for MGA analysis must be separated into subgroups depending on numerous demographic variables such as gender, income, education, and age. The present research created subgroups for demographic variables like gender, education, age, and income. As per Hair et al. (2017), the subgroups are supposed to be equal in size. Hence, the data was divided into different subgroups for different variables. The details of the subgroups for other variables are illustrated in Table 7.1

Table 7.1: Subsets of Demographic Variables

Sr. No	Demographic Variable	Subgroups generated	Subgroup Name
1	Gender	2	Male
			Female
2	Education	3	Up to undergraduate
			Post Graduate
			PhD
3	Income	3	<30K
			30K-70K
			>70K
4	Age	2	Less than 35 yrs.
			More than 35 yrs.

7.2 TEST FOR MEASUREMENT INVARIANCE

Hult et al. (2008) suggested that failure to establish measurement invariance may result in low statistical power, insufficient precision of estimators, and misleading results. As a result, the measurement invariance test must be performed before delivering MGA to different sub-groups of demographic data. Henseler et al. (2016) presented the measurement invariance of composite models (MICOM) approach to measure invariance in the model. The MICOM procedure is divided into three steps: step I reviews configural invariance, step II assesses compositional invariance, and step III evaluates the equality of a composite's mean value and variance between groups. When both configural and compositional invariance (Steps I and II) are proved, partial measurement invariance is confirmed. After obtaining both variances, researchers can compare the path coefficients to the MGA. On the other hand, full measurement invariance is established when composites have similar means and variance within groups (Step III) ; composites must also satisfy partial measurement invariance (Steps I and II) and have identical means and variance within groups. As a result, with either partial or complete measurement invariance, researchers can use the MGA to investigate the categorical variable's moderation effect on all conceptual model relationships.

Before conducting MGA with distinct demographic variables, the MICOM method was followed with the categorization of demographic variables such as gender (2 subgroups), education (3 subgroups), income (3 groups) and age (2 groups). First, MICOM was applied to the gender variable, and partial measurement invariance was established; however, full measurement invariance was not achieved since some correlations did not have equal means or variance across groups. MICOM was also performed on the 'education' variable with three subgroups. However, partial measurement invariance was proven even in the 'education' variable. Once measurement invariance, either partial or complete, has been established, the researchers can examine group differences utilising MGA in PLS-SEM.

After undergoing 'MICOM' on gender and education variables, 'MICOM' was also administered on income and age, and partial measurement invariance was again discovered. After establishing partial measurement invariance for the four categorical variables, the next stage in moderation administration was to run MGA on the data using different subgroups of the categorical variables (gender, education, income, and age).

7.3 MODERATION EFFECT OF DEMOGRAPHICAL VARIABLES

7.3.1 Moderation Effect of Gender

According to Hair et al. (2017), the complete data of 1100 respondents was divided into male and female groups with almost equal subgroup sizes. The moderating impact of the variable 'Gender' was used in the conceptual model's many relationships to investigate whether gender differences affected individuals' financial well-being. SmartPLS 3.2.9 was used to examine the moderation effect of 'Gender' on the relationships. Initially, in SmartPLS, new subgroups of gender variables were formed, and the subgroups were termed 'Male' and 'Female' groups because the gender variable had only two unique values. After the groups were formed, multigroup analysis was performed on the 'Male' and 'Female' groups. Throughout the MGA, the complete bootstrapping option was chosen to perform the MGA's parametric analysis properly. After completing the MGA with both groups (table 7.2), we established that, except for two relationships, the gender variable did not moderate any of the relationships described in the conceptual model. The gender variable moderated the link between FIN_ATT and FIN_BEH, i.e., the difference in path coefficient between male and female subgroups was significant, and the p-value for the relationship was less than 0.05 (p-Value=0.042). The path coefficient difference between females and males is -0.152, which shows that compared to females, males believe strongly that financial attitude is an important variable in creating financial behaviour. Similarly, gender also influenced the association between EFF and FIN_BEH, i.e., the path coefficient difference between male and female subgroups was significant, and the p-value of this relationship was less than 0.05 (p-Value=0.004, 'highlighted'). The path coefficient difference between male and female subgroups was positive (0.187), indicating that females are more convinced that financial efficacy influences financial behaviour. As a result, it was demonstrated that the 'Male' and 'Female' subgroups influenced the relationship between FIN_ATT and FIN_BEH, as well as EFF and FIN_BEH. On the other hand, the gender variable with two subgroups did not affect the remainder of the correlations. It revealed that, except for two associations, the gender variable did not moderate any of them. The non-moderating influence of the 'gender' variable on different conceptual model relationships indicated no difference across gender variable subgroups.

Table 7.2: Multi Group Analysis of Gender on different relationships of the Conceptual Model (to study the Moderation effect of the 'Male' group and 'Female' group)

	Path Coefficients-diff (genF - genM)	p-Value original 1-tailed (genF vs genM)	p-Value new (genF vs genM)	Decision
ATT -> FIN_BEH	-0.152	0.979	0.042	Moderation established
EFF -> FIN_BEH	0.187	0.002	0.004	Moderation established
FIN_BEH -> FIN_INC	0.008	0.435	0.87	Moderation not established
FIN_BEH -> FIN_WBNG	-0.072	0.856	0.288	Moderation not established
FIN_INC -> FIN_WBNG	-0.039	0.703	0.593	Moderation not established
FKNW -> FIN_BEH	-0.125	0.96	0.079	Moderation not established
Moderating Effect 1 -> FIN_BEH	-0.072	0.909	0.182	Moderation not established

As per the results, gender is moderating no relationship except for two relationships (FIN_ATT and FIN_BEH) and (EFF and FIN_BEH), so the following two alternative hypotheses have been accepted, but the third alternative hypothesis is rejected. It establishes that there is no difference between males and females considering the factors influencing an individual's financial well-being.

Table 7.3: Hypothesis Results

Alternate hypothesis	Status
H9*:* Gender has a significant effect on the relationship between financial attitude and financial behaviour	Accepted
H10*:* Gender has a significant effect on the relationship between financial efficacy and financial behaviour	Accepted
H11*:* Gender has a significant effect on the relationship between financial behaviour and financial well-being	Rejected

7.3.2 Moderation Effect of Educational Status:

Hair et al. (2017) suggested that the total data of 1100 respondents was separated into three groups: ‘up to UG’, ‘PG’ and ‘PhD’. The moderating effect of the variable 'education' was used in the various relationships to investigate whether or not educational status differences affect the financial well-being of any individual. The new subgroups of academic status variables were framed and named ' up to UG - PG', ' up to UG - PhD', and 'PG - PhD'. There were other options in the educational status variable, but because the overall group size for those options was very inadequate, those subgroups were ignored, and only the subgroups of 'up to UG - PG,' ' up to UG - PhD,' and 'PG - PhD' were considered to study the moderation effect on all of the conceptual model's relationships. After the groups were formed, multigroup analysis was performed on the 'up to UG - PG’, ‘UG-PhD,' and 'PG-PhD' groups. Because there were three subgroups, MGA could not be administered to all three. As a result, MGA was administered three times, with subgroups labelled 'up to UG-PG', 'up to UG-PhD’ and 'PG - PhD'. Following the creation of the subgroups, a multigroup analysis was first performed utilising the 'up to UG and PG' groups. For the groups under examination, the p-values of all associations were determined. Table 7.4 depicts the values associated with each relationship. After evaluating the values, it was discovered that only three of the relationships had been established. The relationship between ATT and FIN_BEH, EFF and FIN_BEH, and FIN_BEH n FIN_INC was moderated by the educational variable. The p-values for the associations mentioned above were less than 0.05 (p-value=0.011 for ATT→FIN_BEH), n (p-value=0 for EFF →FIN_BEH), and (p-value=0.004 for FIN_BEH →FIN_INC). As a result, it was demonstrated that the 'up to UG and PG' subgroups influenced the relationships of ATT n FIN_BEH, EFF and FIN_BEH, and FIN_BEH n FIN_INC. Except for the three correlations, educational characteristics did not moderate any relationships. As a result, the heterogeneity of the answers was demonstrated, as three relationships were mediated by subgroups within the 'educational' variable. In these three moderated relationships, it is established that in the case of (ATT n FIN_BEH) and (FIN_BEH n FIN_INC), ‘up to UG’ level respondents were more confident. But, in the case of EFF and FIN_BEH, PG respondents are more confident in the strength of this relationship.

Table 7.4: Multigroup Analysis of Educational Status on different relationships of the conceptual model (to study the moderation effect of the 'UG' group and 'PG' group)

	Path Coefficients-diff (EDU_UG - EDU_PG)	p-Value original 1-tailed (EDU_UG vs EDU_PG)	p-Value new (EDU_UG vs EDU_PG)	Decision
ATT -> FIN_BEH	0.189	0.005	0.011	Moderation established
EFF -> FIN_BEH	-0.236	1	0	Moderation established
FIN_BEH -> FIN_INC	0.162	0.002	0.004	Moderation established
FIN_BEH -> FIN_WBNG	-0.116	0.92	0.16	Moderation not established
FIN_INC -> FIN_WBNG	0.109	0.112	0.223	Moderation not established
FKNW -> FIN_BEH	0.152	0.019	0.037	Moderation not established
Moderating Effect 1 -> FIN_BEH	0.017	0.385	0.77	Moderation not established

Following the creation of three subgroups for the variable 'education' according to the available options, the next set of subgroups evaluated to study the moderating effect on all of the conceptual model's relationships was the ' up to UG and PhD' subgroup. Following MGA, the p-values for all associations were calculated using both groups. Table 7.5 depicts the values associated with each relationship. After assessing the values, it was determined that there was no association between any of the relationships portrayed in the conceptual model because all of the p values for each relationship depicted in the conceptual model were more than the permissible level of 0.05. As a result, the heterogeneity of answers was not proven because no relationship was moderated by the subgroups within the 'education' variable. This analysis shows that up to the UG level and PhD respondents think similarly about all the relationships depicted in the conceptual model.

Table 7.5: Multigroup Analysis of Educational Status on different relationships of the conceptual model (to study the moderation effect of the 'UG' group and 'PhD' group)

	Path Coefficients-diff (EDU_UG - EDU_PHD)	p-Value original 1-tailed (EDU_UG vs EDU_PHD)	p-Value new (EDU_UG vs EDU_PHD)	Decision
ATT -> FIN_BEH	0.034	0.37	0.739	Moderation not established
EFF -> FIN_BEH	-0.11	0.913	0.174	Moderation not established
FIN_BEH -> FIN_INC	-0.017	0.603	0.794	Moderation not established
FIN_BEH -> FIN_WBNG	-0.04	0.666	0.668	Moderation not established
FIN_INC -> FIN_WBNG	0.145	0.067	0.135	Moderation not established
FKNW -> FIN_BEH	0.122	0.063	0.127	Moderation not established
Moderating Effect 1 -> FIN_BEH	-0.279	0.826	0.348	Moderation not established

Continuing with the MGA of the 'educational' variable, the 'PG' and 'PhD' subgroups were explored to study the moderation effect on all of the conceptual model's linkages. Following MGA, the p-values for all associations were determined using both groups. Table 7.6 displays the t-values and p-values for all of the relations. After evaluating the values, it was determined that only one relation was moderated. The 'education' variable moderated the associations between FIN_BEH and FIN_INC, i.e. the path coefficient difference of the PG and PhD subgroups was significant, and the p-value was less than 0.05 (p-Value=0.007 for FIN_BEH→FIN_INC). Hence, it was proved that the subgroups of 'PG' and 'PhD' affected only one relationship of the conceptual model. The path coefficient difference in this relation shows a negative sign (-0.178). It means that these two groups think differently about this relationship. Compared to PG respondents, PhD respondents believe strongly in the relationship between financial behaviour and financial well-being. The education variable did not impact the rest of the relationships. Hence, the heterogeneity within the responses was not proved as five relations were not moderated by the subgroups within the 'education' variable.

Table 7.6: Multigroup Analysis of Educational Status on different relationships of the conceptual model (to study the moderation effect of the 'PG' group and 'PhD' group)

	Path Coefficients-diff (EDU_PG - EDU_PHD)	p-Value original 1-tailed (EDU_PG vs EDU_PHD)	p-Value new (EDU_PG vs EDU_PHD)	Decision
ATT -> FIN_BEH	-0.155	0.942	0.115	Moderation not established
EFF -> FIN_BEH	0.126	0.082	0.164	Moderation not established
FIN_BEH -> FIN_INC	-0.178	0.997	0.007	Moderation established
FIN_BEH -> FIN_WBNG	0.076	0.18	0.36	Moderation established
FIN_INC -> FIN_WBNG	0.036	0.332	0.664	Moderation not established
FKNW -> FIN_BEH	-0.03	0.645	0.71	Moderation not established
Moderating Effect 1 -> FIN_BEH	-0.296	0.855	0.29	Moderation not established

In the case of education as a moderating variable, three subgroups were created to study its moderation effect. After undergoing MGA using three subgroups, it establishes that overall, there is no difference when the person up to UG, PG, and PhD levels considers the factors influencing his financial well-being.

Hence, it was found that all the framed hypotheses were accepted in the case of education.

Table 7.7: Hypothesis Results

Alternate hypothesis	Status
H12: Education has a significant effect on the relationship between financial attitude and financial behaviour	Accepted
H13: Education has a significant effect on the relationship between financial efficacy and financial behaviour	Accepted
H14: Education has a significant effect on the relationship between financial behaviour and financial well-being	Rejected

7.3.3 Moderation Effect of Income

According to the method suggested by Hair et al. (2017), data is categorised (1100 respondents) into three groups: 'less than 30K income', '30_70K income', and 'more than 70K income'. The variable 'income' moderating effect was applied to the various relationships to assess whether the income difference affected any individual's financial well-being. 'INC_30L,' 'INC_30_70BET,' and 'INC_70G' were the three-income variable sub-groups. Other income variables were also available, but because the group size for those options was tiny/very small, those subgroups were excluded. Only three subgroups were explored to investigate the moderating effect on all of the conceptual model's relationships. MGA could not be run on all three subgroups together. MGA was thus administered three times, with subgroups named '30L n 30_70Bet', '30L n 30_70Bet n 70G', and '30L n 70G'. Following the formation of the subgroups, the first subgroup couple used was 'INC_30L' and 'INC_30_70Bet'. The p-values of all relationships were determined using both sub-groups. The values associated with each relationship are depicted in Table 7.8. Following an analysis, it was discovered that none of the linkages had been moderated. All linkages in this analysis had p-values more than the typical advised cutoff of 0.05. Consequently, the income variable with two subgroups revealed that the 'INC_30L' and 'INC_30_70Bet' subgroups did not affect any relationship. It demonstrates that there is no difference in the thinking of both subgroups about the relationships depicted in the conceptual model.

Table 7.8 : Multigroup Analysis of Income on different relationships of the conceptual model (to study the moderation effect of income less than 30L and income between 30k – 70k)

	Path Coefficients-diff (INC_30L - INC_30_70BET)	p-Value original 1-tailed (INC_30L vs INC_30_70BET)	p-Value new (INC_30L vs INC_30_70BET)	Decision
ATT -> FIN_BEH	-0.088	0.879	0.241	Moderation not established
EFF -> FIN_BEH	0.058	0.212	0.423	Moderation not established
FIN_BEH -> FIN_INC	0.045	0.25	0.5	Moderation not established
FIN_BEH -> FIN_WBNG	-0.034	0.654	0.691	Moderation not established
FIN_INC -> FIN_WBNG	-0.092	0.833	0.333	Moderation not established
FKNW -> FIN_BEH	0.093	0.105	0.211	Moderation not established
Moderating Effect 1 -> FIN_BEH	0.058	0.319	0.637	Moderation not established

As three subgroups for the variable 'income' were formed depending on the possibilities provided, the next set of subgroups studied to study the moderation effect on all of the conceptual model's interactions was income between '30-70K' and ' more than 70L'. The p-values of all linkages were calculated using both groups. The values associated with each relationship are depicted in Table 7.9. Following an analysis of the data, it was revealed that one of the relationships had been moderated.

The association between EFF and FIN_BEH was moderated by income. The difference in path coefficients between the groups '30-70K' and ' more than 70L' was significant. The p-value for EFF and FIN_BEH was less than 0.05, indicating that it was significant (p-Value=0.0). As a result, the subgroups '30-70K' and more than 70L' were shown to influence the relationships of the conceptual model. The negative sign of the path coefficient model (-0.293) shows that individuals with an income of more than 70000 believe strongly that financial efficacy is a strong variable for positive financial behaviour.

In contrast, the subgroups' income variable unaffected the rest of the relationships. Hence, the heterogeneity within the responses was proved as one relation was moderated by the subgroups within the 'income' variable.

Table 7.9 : Multigroup Analysis of Income on different relationships of the conceptual model (to study the moderation effect of income 'between 30k – 70k' n '‘greater than 70k')

	Path Coefficients-diff (INC_30_70BET - INC_70G)	p-Value original 1-tailed (INC_30_70BET vs INC_70G)	p-Value new (INC_30_70BET vs INC_70G)	Decision
ATT -> FIN_BEH	0.061	0.257	0.515	Moderation not established
EFF -> FIN_BEH	-0.293	1	0	Moderation established
FIN_BEH -> FIN_INC	-0.053	0.761	0.479	Moderation not established
FIN_BEH -> FIN_WBNG	-0.106	0.924	0.153	Moderation not established
FIN_INC -> FIN_WBNG	0.088	0.143	0.285	Moderation not established
FKNW -> FIN_BEH	0.102	0.108	0.217	Moderation not established

Continuing with the MGA of the 'income' variable, the following subgroups were evaluated to study the moderating effect on the conceptual model's relationships: income 'less than 30K' and ' more than 70K' subgroups, for all of the connections' p-values were determined using both groups. Table 7.10 shows the p-values for all of the correlations. After examining the values, it was determined that just one correlation was moderated. The income variable moderated the link between EFF n FIN_BEH since the path coefficient difference between the 'less than 30K' and more than 70K' subgroups for the relation EFF n FIN_BEH was significant and negative (-0.235), indicates that as compared to individuals with income less than 30K, individuals with income more than 70K strongly believes that financial efficacy is the important variable for creating financial behaviour of any individual. The p-value for the relation was also less than 0.05 as well (p-Value=0.012 for EFF →FIN_BEH). As a result, it was demonstrated that the subgroups of 'less than 30K' and 'more than 70K' influenced one conceptual model relationship.

In contrast, the rest of the relationships were not affected by the income variable having two subgroups. Hence, the heterogeneity within the responses was proved, as one relation was moderated by the subgroups within the 'income' variable.

Table 7.10 Multigroup Analysis of Income on different relationships of the conceptual model (to study the moderation effect of income 'less than 30k' n 'greater than 70k')

	Path Coefficients-diff (INC_30L - INC_70G)	p-Value original 1-tailed (INC_30L vs INC_70G)	p-Value new (INC_30L vs INC_70G)	Decision
ATT -> FIN_BEH	-0.027	0.626	0.748	Moderation not established
EFF -> FIN_BEH	-0.235	0.994	0.012	Moderation established
FIN_BEH -> FIN_INC	-0.008	0.544	0.913	Moderation not established

	Path Coefficients-diff (INC_30L - INC_70G)	p-Value original 1-tailed (INC_30L vs INC_70G)	p-Value new (INC_30L vs INC_70G)	Decision
FIN_BEH -> FIN_WBNG	-0.14	0.96	0.08	Moderation not established
FIN_INC -> FIN_WBNG	-0.004	0.524	0.952	Moderation not established
FKNW -> FIN_BEH	0.194	0.006	0.012	Moderation not established
Moderating Effect 1 -> FIN_BEH	-0.02	0.661	0.679	Moderation not established

Table 7.11: Hypothesis Testing

Alternative hypothesis	Status
H15*:* Income has a significant effect on the relationship between financial attitude and financial behaviour	Rejected
H16*:* Income has a significant effect on the relationship between financial efficacy and financial behaviour	Accepted
H17*:* Income has a significant effect on the relationship between financial behaviour and financial well-being	Rejected

7.3.4 Moderation Effect of Age

As per Hair et al. (2017), the total data of 1100 respondents were divided into groups of ages less than 35 years and more than 35 years with relatively equal sizes of subgroups. The moderation effect of the variable 'age' was administered on the different relationships to study whether age differences affect an individual's financial well-being. The new subgroups of age variables were created, and the subgroups were named 'Age_35L' and 'Age_35 G' groups. Only the subgroups of 'age less than 35' and 'age more than 35' were considered to study the moderation effect on all the relationships of the conceptual model. Once the groups were created, the multigroup analysis used the' age less than 35' and 'age more than 35'groups. During the MGA, the complete bootstrapping option was selected so that the parametric analysis of the MGA could be done. Once the MGA was done using both the sub-groups, table 7.12 was generated, which established that except for one relationship, the age variable did not moderate any of the relationships depicted in the conceptual model. The age variable moderated the relationships between FIN_BEH → FIN_WBNG and the path coefficient difference of 'age less than 35' and 'age more than 35' subgroups was significant. The p-value was less than 0.05 (p-Value=0.039 for FIN_BEH → FIN_WBNG). The mentioned p-values proved that the subgroups of 'age less than 35' and 'age more than 35' affected the relationships of FIN_BEH n FIN_WBNG. The path coefficient for this relation shows a positive value (0.146), indicating that people more than 35 years of age consider financial behaviour as an important variable for an individual’s financial well-being. In contrast, the rest of the relationships were unaffected by the two subgroups of the age variable. It established that the age variable was not moderating any of the relationships except one relationship. Hence, the heterogeneity within the responses was proved as the subgroups within the 'age moderated one relation.'

Table 7.12 Multigroup Analysis of Age on Different Relationships of the Conceptual Model (to study the moderation effect of age 'less than 35 years' n '‘greater 35 years)

	Path Coefficients-diff (Age_35G - Age_35L)	**p-Value original 1-tailed (Age_35G vs Age_35L)**	**p-Value new (Age_35G vs Age_35L)**	**Decision**
ATT -> FIN_BEH	0.118	0.041	0.082	Moderation not established
EFF -> FIN_BEH	0.094	0.073	0.146	Moderation not established

	Path Coefficients-diff (Age_35G - Age_35L)	p-Value original 1-tailed (Age_35G vs Age_35L)	p-Value new (Age_35G vs Age_35L)	Decision
FIN_BEH -> FIN_INC	0.005	0.461	0.922	Moderation not established
FIN_BEH -> FIN_WBNG	0.146	0.019	0.039	Moderation established
FIN_INC -> FIN_WBNG	-0.044	0.714	0.572	Moderation not established
FKNW -> FIN_BEH	-0.092	0.931	0.138	Moderation not established
Moderating Effect 1 -> FIN_BEH	0.054	0.38	0.76	Moderation not established

Table 7.13: Hypothesis results

Null hypothesis	Status
H18: Age has a significant effect on the relationship between financial attitude and financial behaviour	Rejected
H19: Age has a significant effect on the relationship between financial efficacy and financial behaviour	Rejected
H20: Age has a significant effect on the relationship between financial behaviour and financial well-being	Accepted

The current chapter presents the findings of the moderating influence of demographic characteristics such as age, gender, education, and income on the relationships that lead to an individual's financial behaviour and well-being. Data analysis began with multigroup analysis (MGA). However, before MGA, a measurement invariance test was performed using MICOM. Once measurement invariance was established, the moderating impact on the associations between the demographic variables age, gender, marital status, and occupation was investigated.

The demographic factors were separated into several equal-sized subgroups, and their moderating effects were investigated in a pair of subgroups. MGA was performed on a single pair of demographic variables, gender and age. Three equal-sized groupings were formed based on education and income demographics. MGA was performed three times, each utilising distinct pairings of educational and income factors. As a result, MGA was performed eight times, yielding eight matched subgroups. The education variable moderated the three links in the conceptual model, followed by income and gender, which moderated two interactions each, and the age variable, which moderated just one.

Chapter – 8

FINDINGS, SUGGESTIONS, LIMITATIONS AND FUTURE WORK

8.1 FINDINGS

The questionnaire had different parts. In the first part, general questions were asked, whereas, in the second part of the study, questions related to the conceptual model were asked from the respondents.

8.1.1 Findings of General Questions

In the first part of the questionnaire, general questions were asked to study users' saving and spending patterns. In this section, respondents were asked to respond about how long they have been investing, how much they save per month, money withdrawal frequency, transaction options, seeking financial advice, purpose for saving, different alternative investment tools, and barriers restricting investments.

There are startling results related to the spending and saving patterns of the respondents.

- Half of the respondents reported that they had just started saving for the last three to four years, but the elderly generation (20%) reported a saving period of more than ten years. One-third of the respondents reported saving 5000-10000 Rs a month. Skyrocketing inflation, fewer salary increases, and a more materialistic mindset are reasons for low savings (Klonowski, 2021).

- To save money for future needs, one must go to financial institutions/ banks to open accounts. After opening the accounts, this savings account number can be used for various purposes (Prina, 2015). More than half of the respondents agreed that they had opened a bank account for savings purposes only, and a third decided to use it for transaction purposes. Most of these respondents are not businessmen but use savings accounts for online banking transactions for personal use. The growth of YOY profit from online shopping platforms supports this pattern (E-commerce worldwide - statistics & facts, 2024). Significantly, few people reported the use of savings accounts for loan purposes.

- When asked about the helping hands as financial advisory services at the investment timings, nearly half of the respondents admitted that they always find the investment avenues independently, whereas 39% reported getting help from financial experts and friends. Day by day, people are becoming self-reliant and confident in making investment decisions (Teare, 2013).

- The primary motivation to invest and save comes from assessment and planning for future events in life, which require ample finances (Jappelli & Padula, 2013). Thirty per cent of respondents reported that savings inspired them to cover their children's education and marriage. Instead, 34 per cent of respondents saved to meet unexpected expenses in the coming life, 17 per cent saved to reduce income tax and 19 per cent saved to secure their retirement.

- Respondents also responded very differently when asked for avenues to invest. Twenty-three per cent trust bank accounts for savings. Apart from that, 19 per cent use mutual funds, 16 per cent PPF, 12 per cent insurance funds, 11 per cent use stocks, and 15 per cent are interested in purchasing gold for investment purposes.

- Individuals make investments, but a strong financial system is required for rational returns. It can help people by providing affordable financial products and granting them loans during hard times (Cochrane, 2014). Fifty per cent of respondents reported relying on banks, 30 per cent on family or friends to cover unexpected expenses, and 14 per cent reported relying on employers and NBFCs for loans.

8.1.2 Findings of Study-Related Questions

Every study has some research questions. These research questions help formulate the study's objectives, and efforts are made to achieve those objectives. The following findings are derived from achieving objectives in this part of the study.

Objective 1*:* To study the relationship between financial attitude and financial efficacy with financial behaviour.

Under this objective, a study was conducted to find the relationship between financial attitude, financial efficacy and financial behaviour. Structural path analysis was used to determine this relationship's strength. The significance of the relationship between the independent/exogenous variable and the dependent/endogenous variable depicted in the conceptual model was established as the *t*-stats of the relationships (independent→dependent) were more than 1.96 (at 95% confidence level). Hence, both the alternative hypotheses (H1 and H2) were accepted. With the acceptance of alternative hypotheses, it was established that financial attitude and financial efficacy had a significant and positive effect on financial behaviour. Similar results are found in the study of Johan (2021), which found that financial attitude and financial efficacy are the main drivers for strengthening financial behaviour. Abdullah et al. (2019) opined that attitude towards money is the dimension of one's mindset that uniquely contributes to financial behaviour. Ameliawati & Setiyani (2018) also confirmed the strong influence of financial attitudes toward financial management behaviour through financial knowledge as a mediation variable. Zaki et al. (2020) viewed that an individual's good attitude helps them towards good financial behaviour. Nurturing an excellent financial attitude is a must for positive financial behaviour. Saving attitudes and avoiding buying unnecessary products among youth make them financially responsible.

In the same way, Mulasi & Mathew (2021) also supported the relationship that financial efficacy helps to support financial behaviour. Kusairi et al. (2019) opined that a household's financial efficacy is essential for its decision to save and to choose a saving instrument. Households with higher levels of financial efficacy are more likely to use bank-based or lower-risk saving instruments than non-banking-based ones. Sharmila & Perumandla (2023) studied the relationship between efficacy and behaviour in the real estate sector and found it significant. In the lower income households, this relationship also holds. The credit behaviour of BPL households is significantly influenced by the level of financial inclusion and the level of financial self-efficacy (Mindra et al., 2017).

Among the factors influencing the financial behaviour of the individuals, the most crucial variable was financial attitude (t-stats=9.18), compared to financial efficacy (t-stats=6.663). The coefficient of determination (R^2) measures the variance of the dependent variable explained by the independent variables and determines the model's predictive accuracy. Since the R^2 of the model having (financial behaviour) as a dependent variable was 0.445, it was confirmed that the independent variables like financial attitude and financial efficacy elucidated 44.5% of the variability in the financial behaviour variable. Data analysis revealed that the predictive relevance of this model having financial behaviour as the dependent model was medium, as the Q^2 of the said model was 0.222.

Objective 2: To study the moderation effect of financial knowledge on the relationship between financial attitude and financial efficacy with financial behaviour.

Previous literature has found an impact of financial knowledge on the relationship between financial efficacy and financial behaviour. Arofah (2019) opined that in the light of financial knowledge, financial efficacy in college students helps them understand financial behaviour. Undergraduates with high financial knowledge are more likely to hold investment and savings products and are less likely to hold debt-related products. Similarly, undergraduates with high self-efficacy and financial knowledge will likely manage their finances better (Liu & Zhang, 2021). This objective studied the moderation effect of financial knowledge on the relationship between financial attitude and financial efficacy with financial behaviour. Structural path analysis was used to determine this relationship's strength. The significance of the relationship between the independent/exogenous variable and the dependent/endogenous variable depicted in the conceptual model was established as the T-stats of the relationships (independent→dependent) were more than 1.96 (at 95% confidence level). Moderation is somewhat like mediation in that a third variable (i.e., a mediator or moderator variable) affects the strength of a relationship between two latent variables. The crucial distinction between both concepts is that the moderator variable does not depend on the exogenous construct. In contrast, with mediation, there is a direct effect between the exogenous construct and the mediator construct.

While analysing the moderation effect, if the interaction term's impact on the endogenous construct is significant, it is concluded that the moderator (MV, moderating variable) has a significant moderating effect on the relationship between (IV, independent variable) and (DV, dependent variable). In the present study, efforts were made to see the impact of MV (FKNW) on the relationship between the IV1 (ATT) and DV (FIN_BEH) and found that the t-statistics for the interaction effect (Moderating Effect 1→ FIN_BEH) of 3.569 (p-value=0), which shows that the relationship between attitude and financial behaviour is strengthened in the presence of financial knowledge. In other words, a person exhibits more favourable financial behaviour if he possesses both financial attitude and financial knowledge. Students who have received financial education have a greater attitude towards personal finance and appear more likely to save (Batty et al., 2016). Another study by (Bruhn et al., 2014) opined that starting financial education in early life could also enhance cumulative learning across grade levels and economic experiences. The same opinion is shared by Go et al. (2012) that upper-elementary kids' financial awareness improves following classroom financial education. Go et al. (2012) also reported evidence of favourable changes in college students' attitudes and behaviour if financial knowledge is given to them in the early stage of life.

On the other side, after analysing the second relationship, it is found that the interaction effect (Moderating Effect 2 (EFF→FIN_BEH) is 1.452, and the p-value is more than 0.05 (0.147). It demonstrates that financial knowledge does not moderate the association between financial efficacy and financial behaviour. In other words, financial efficacy has an equivalent influence on a person's financial behaviour irrespective of their level of financial understanding. Many scholars (Amagir, 2018; Arofah, 2019; Heckman & Grable, 2011) provided evidence for the moderating influence of financial knowledge on the association between financial efficacy and financial behaviour.

Objective 3: To study the mediation effect of financial inclusion in the relationship between financial behaviour and financial well-being.

The third objective was to investigate the mediation effect of financial inclusion on the association between financial behaviour and financial well-being. Mediation analysis assumes a sequence of interactions in which a preceding variable influences a mediating variable, which controls a dependent variable. The VAF approach (variance accounted for) is used in the present study to study the mediation effect. If the VAF is less than 20%, as a rule of thumb, hardly any mediation occurs. A situation where the VAF is greater than 20% but less than 80% could be described as a typical partial mediation (Hair et al., 2016), whereas a VAF greater than 80% suggests complete mediation. This process deals with two steps. In the first step, the indirect effect of the mediator on the path of the direct impact is ascertained. In the present study, the significance of the indirect effect of the mediator (financial inclusion) on the path of the direct impact was ascertained (FIN_BEH → FIN_INC →FIN_WBNG, t-stats=6.029, p-value=0). The same was found to be significant. In the second step, the total effect was calculated. As per the tables, the specific indirect effect was 0.129, and the total effect was 0.536. To find the strength of mediation, the specific indirect effect is divided by the total impact, and the value comes to be 24%. As per the thumb rule, since the direction for the indirect effect is the same as that of the direct effect, financial inclusion partially mediates the direct association between financial behaviour and financial well-being.

As per the previous literature, a higher financial behaviour score is linked with a higher total financial inclusion score, which leads to higher holdings of financial products and higher active financial behaviour (Amagir, 2018). Financial knowledge has a statistically significant favourable influence on financial inclusion and savings behaviour (Morgan & Long, 2020). Indeed, financial education improves financial behaviour, including insurance, savings, financial market involvement, financial retirement planning, investments, debt management, bank account ownership, and financial practises, which are crucial for people with low incomes in developing nations (Braunstein & Welch, 2002).

Objectives 4 and 5: To study the moderation effect of demographic variables on the relationship between financial efficacy, financial attitude and financial behaviour and

To study the moderation effect of demographic variables on the relationship between financial behaviour and financial well-being.

The present research work under this objective was to study the moderation effect of demographic variables like gender, education, income, and age on individuals' financial behaviour and well-being. In today's times, most researchers are sceptical about the homogeneity of the data being collected. Hence, heterogeneity among the different demographic variables on all the relationships conceptualised in the conceptual model was studied in the present research.

After establishing the partial or complete measurement invariance, the MGA was administered based on different demographic variables (gender, education, income, and age). Firstly, MGA was administered to the data using the subgroups of the gender variable. After administering MGA, it was established that out of all the relationships conceptualised in the conceptual model, the subgroups of the gender variable moderated two relationships. It is because, except for two relationships, male and female subgroups of the gender variable didn't consider the relationships differently. The gender variable moderated the relationships between ATT→FIN_BEH and EFF→FIN_BEH by highlighting the variations in the said relationships. This variation establishes that both males and females consider this relationship (ATT→ FIN_BEH and EFF→ FIN_BEH) differently. As per the analysis, it is found that the path coefficient difference between the male subgroup and female subgroup has a negative value of -0.152 in ATT→FIN_BEH and 0.187 in EFF→FIN_BEH. The negative difference in the path coefficient signifies that the male subgroup's financial behaviour is more influenced by the financial attitude than the female subgroup, and the reverse is in the case of the other relationship wherein the financial efficacy influences the female subgroup's financial behaviour more than in the case of male subgroups. Farrell et al. (2016) opined that women with higher financial self-efficacy, which means they are more confident in their financial management abilities, are more likely to own investment and savings products and less likely to own loan products. The path coefficient differences between male and female subgroups are also found in other relationships, but as the differences are insignificant, the relationships for the subgroups are influenced equally.

Few other studies found a mixed response in the case of males and females (Dwivedi et al., 2015) concluded that women outperformed men regarding financial attitude, financial behaviour, and financial understanding. Bhargava et al. (2022) and Falahati and Paim (2011) found that working women with blue personality characteristics (enthusiastic, imaginative, compassionate, sympathetic, sincere and communicative) have a comparatively better financial attitude. It can be argued that male students are more optimistic about money than female students. The reason is that since childhood, females are involved in the financial matters of housing and guided by their parents on what is right and wrong on the financial front, where to save, and how to save (Sabri et al., 2017). In most cultures, females are given day-to-day training about the rational use of money, giving females a clear-cut view of financial matters and developing their efficacy to handle money rationally (Sabri et al., 2017).

On the other hand, in the company of parents and friends, males are taught how life is with or without money (attitude about money). Herdjiono et al. (2018) also studied the difference in the opinions of males and females regarding financial attitudes.

Similarly, MGA was administered using the education variable. UG, PG, and PhD subgroups were created for education variables. As there were three subgroups, MGA was administered groupwise. Initially, the subgroups of UG and PG were used to undergo MGA. After undergoing MGA, it was established that three relationships of the conceptual model (ATT→FIN_BEH, EFF→ FIN_BEH, FIN_BEH→FIN_INC) were moderated, and the rest of the relationships were not moderated. The moderation effect of the education variable established that ATT and EFF were influencing the financial behaviour of UG and PG subgroups differently. The financial behaviour of the UG students was influenced more by their attitude than in the case of PG students, and the reverse was witnessed in the second relationship where the financial efficacy more positively influenced the financial behaviour of the PG students than the UG students.

Similarly, financial inclusion was also influenced separately by the financial behaviour of the UG and PG subgroups. The financial inclusion of the UG students was influenced more by their financial behaviour than of the PG students. People up to and below the graduate level have limited exposure to financial knowledge and financial investments. They carry the same impression about financial behaviour that their parents give them: 'save money for future events and a person possessing more money means success in life'. They have rosy pictures of money and think it is everything in life, so they have a positive financial outlook towards financial behaviour (Allsop et al., 2021).

The subsequent moderation set using MGA for the education variable was studied using the subgroups of the UG and PhD students. After administering MGA, it was found that the coefficient difference of all the relationships of the conceptual model was seen to be insignificant for the UG and PhD students. Thus, it was established that the UG and PhD students' financial behaviour is influenced likewise by their financial attitude and efficacy. Similarly, their financial well-being is also influenced by their financial behaviour.

The last moderation set for the education variable was studied using the subgroups of PG and PhD students. After administering MGA to examine the moderation effect of the PG and PhD students, it was found that the path coefficient differences for all the relationships of the conceptual model were insignificant except one relationship, i.e., the relationship between FIN_BEH and FIN_INC. As the path coefficient difference was negative, the financial inclusion of PhD students was influenced more by their financial behaviour than by PG students.

After studying the moderation effect of 'gender' and 'education' variables, MGA was administered to the data using the 'Income' variable. The income variable was divided into three subgroups: less than 30K income, 30_70K income, and more than 70K, with relatively equal sizes. MGA was conducted using two subgroups at a single point. As three subgroups were among the 'income' variable, MGA was run thrice with the following subgroup setups: '30L n 30_70Bet', ' 30_70Bet n 70G', and '30L n 70G'. No relationship was moderated when MGA was run for the first set, i.e., between 'INC_30L' and 'INC_30_70Bet'. It was established that the financial behaviours of all individuals with income less than 30K and income levels between 30K and 70K are influenced likewise by the financial attitude and financial efficacy as the path coefficient differences for both the groups were insignificant having the financial attitude and financial efficacy as independent variables. Similarly, financial well-being was influenced equally by the financial behaviour of individuals with income levels less than 30K and between 30K and 70K.

After studying the first sub-group, the second subgroup considered for the MGA was income ‘between 30k – 70k’ n ‘greater than 70k’. After undergoing the MGA, it was established that among all the relationships, only one relationship was moderated by the second subgroup. It established that the subgroups were moderating the relationship, and they were considering the relationship differently. Both the subgroups ‘between 30k – 70k’ n greater than 70k’ considered the effect of efficacy differently towards the financial behaviour, confirming that both the groups were affected differently for the thinking and performing their financial behaviour. The path coefficient difference for the subset was negative (EFF→FIN_BEH: = -0.293), establishing that individuals with income greater than 70K consider efficacy to be more important in building financial behaviour than in the case where the income levels range from 30K to 70K. It establishes that their efficacy and capability help build rational financial behaviour for individuals with incomes over 70K compared to individuals between 30 K and 70K. It also highlights that individuals with incomes ranging between 30K and 70K may not consider financial efficacy significant for building financial behaviour, as they will have less income left for investments.

After running the moderation on the second subset, MGA was administered on the third subset, i.e., ‘less than 30k’ and ‘greater than 70k’. It was proved that the subset of the third subgroup moderated two relationships (EFF→FIN_BEH, FIN_BEH→FIN_WBNG). It established that the two subgroups were moderating the relationships, and they were considering these relationships differently. Both the subgroups of income ‘less than 30k’ and ‘greater than 70k’ considered the effect of financial efficacy (EFF) towards financial behaviour (FIN_BEH) and the impact of financial behaviour (FIN_BEH) towards financial well-being (FIB_WBNG) differently. Therefore, it was confirmed that both groups were affected differently regarding financial behaviour and well-being. In these subgroups, the path coefficient difference for both relationships among the two subgroups was negative (EFF→FIN_BEH: -0.235, FIN_BEH → FIN_WBNG: -0.14). For the relationships where the path coefficient differences are negative, the influence of independent variables on the dependent variables has been more for the subgroup ‘greater than 70k’ than the subgroup ‘less than 30k’, which means that the financial behaviour of the individuals with income more than 70K are influenced more by the financial efficacy and the financial well-being of this group is influenced more by the financial behaviour. In other words, individuals with an income of more than 70K consider financial efficacy to be a considerable variable for positive financial behaviour and consider financial behaviour to be an essential element in creating financial well-being.

After undergoing MGA on the data based on the ‘income’ variable subgroups, MGA was also administered using the two subgroups of ‘age.’ The age group was divided into two sub-groups, i.e., less than 35 years and more than 35 years. MGA got to run on the two subgroups. After administering the MGA using this subset, it was found that the ‘age’ variable moderated only one relationship among all the relationships of the conceptual model, i.e., the relationship between FIN_BEH and FIN_WBNG was moderated. It established that the variable ‘FIN_BEH’ affected financial well-being differently among the respondents who belonged to different age groups, i.e., less than 35 years and more than 35 years. It highlighted that the importance of financial behaviour differed for the respondents of different age groups. The path coefficient difference was positive (0.146), highlighting the lesser extent of financial behaviour concerning financial well-being for lower-aged respondents than the higher-aged respondents.

8.2 SUGGESTIONS

8.2.1 Suggestions based on the Relationships between Financial Efficacy, Attitude and Behaviour

Rational financial behaviour is one of the most essential elements for achieving financial well-being (Rahman, 2021). Financial behaviour is how a person manages money, deals with financial challenges and makes financial decisions. Financial behaviour can lead a person towards his financial well-being, provided that person is committed towards his financial goals. It also helps an individual plan his finances thoughtfully for every situation or event. Improving financial behaviour is essential for achieving financial stability and success. An individual can enhance his financial behaviour if he

- Creates a monthly budget by outlining income and expenses.
- Records expenses to track one's spending pattern to ensure spending is within the budgeted plan.
- Builds emergency funds for at least three to six months of living expenses to ensure financial cushion for his financially challenging days.
- Avoids overspending or living beyond one's means.
- Focuses on his investment pattern based on the goals and timelines.
- Set short-term and long-term goals to manage money effectively as per needs.
- Prioritize paying off high-interest debts like credit card balances.
- Decides the portion for savings and investments, especially in a diversified portfolio of stocks and bonds.
- Does not stick to one income stream; instead, he develops and uses his multiple skills to generate multiple sources of income.
- Reviews self-financial situations, adjusts the budget per goals, and explores opportunities to earn additional income, such as freelancing, part-time work, or starting a side business.
- Choose flexible investment and insurance plans for ever-changing circumstances of life.
- Improves self-discipline and patience.

Financial behaviour provides a cushion in unexpected events like medical emergencies or job loss. Financial behaviour is fruitful if the goals are achieved as planned, but due to many uncertainties, money saved for one purpose is used for another. So, apart from savings and investments for various future financial events, one must ensure appropriate insurance coverage for health, home, and other valuable assets to protect against unexpected financial setbacks. If one is committed to one's financial goals even when faced with temptations or setbacks, one can easily ensure one's financial well-being. Improving financial behaviour is a gradual process, and one must be patient with himself. Small, consistent steps can significantly improve an individual's financial well-being. Financial behaviour can lead a person towards his financial well-being, provided that person is committed towards his financial goals, saving patterns, planned investments, debt management and proper investment in retirement planning. He should also avoid lifestyle inflation, which tends to increase spending as income rises, reducing the potential for long-term savings. Updating oneself with financial knowledge, getting proper coverage with insurance products, managing taxes, having patience, and properly networking with friends, family, or online communities to share financial tips and learn from their experiences also help to improve an individual's financial behaviour (Andoko & Martok, 2020). Financial well-being is a journey. Building good financial habits and making informed decisions go side by side in this journey and can lead individuals to a more secure and prosperous future (Kumar et al., 2023).

Financial efficacy and attitude are two major building blocks for financial behaviour. Financial attitude is a person's state of mind, judgment, and opinion about his finances. Financial efficacy is an individual's belief in acquiring information to make effective financial decisions and achieve financial goals (Netemeyer et al., 2018; Forbes & Kara, 2010). Enhancing financial attitude and financial efficacy involves changing one's mindset, behaviours, and habits related to money management. This empowerment from financial knowledge and efficacy can make individuals feel confident and capable of managing their finances, instilling a sense of control and security.

One must also set clear, specific, measurable, achievable, relevant, and time-bound (SMART) financial goals for short-term, medium-term, and long-term as per future financial needs. Clear goals provide direction, motivation and control over finances, giving the audience a clear roadmap to their financial success. To develop a better financial attitude and financial efficacy, an individual should:

- Gain financial knowledge by self-educating with financial concepts and staying updated with financial news and trends.
- Set achievable long-term smart goals and then divide long-term goals into smaller parts to achieve them quickly.
- Practise regular budgeting and tracking income, savings, investments, and expenses per the defined goals.
- Develop strong financial habits by paying bills and EMIs on time and reviewing them periodically.
- He must stay updated with financial knowledge about products like credit cards, loans, investments, and savings account options. This knowledge empowers him to make informed decisions.
- Understand the importance of credit scores and learn methods to increase scores for more successful credit negotiations.
- Develop analytical skills to solve financial matters; before making any financial decision, consider the pros and cons of the potential outcomes.
- Gain financial experience from small things like creating and managing budgets, investments, financial news, market trends and own mistakes, etc.
- Consult financial advisors to fulfil personal financial goals and join communities to gain experience from other's journeys.
- Learn from their own and others' mistakes to build a positive financial mindset. Healthy financial habits make individuals feel disciplined and focused on their financial journey. This learning process instils resilience and optimism, helping the audience bounce back from setbacks and stay optimistic about their financial future.
- Regularly visualise his success and goal accomplishment to stay on his planned track.
- Develop healthy financial habits by setting up automatic money transfers to investment accounts.

- Practice mindful spending, which involves taking time before making a purchase, considering the necessity and value of the item, and paying cash instead of credit or online payment. This will help an individual stick to his budget and avoid unnecessary expenses.

Simultaneously, one should educate children about money management from a young age (Henager & Cude, 2016). Teaching them good financial habits early in life can set them up for success in the future. This practice improves their financial behaviour and possession of financial knowledge and helps to give an individual the confidence to invest and grow money. It ultimately boosts an individual's financial efficacy, attitude, and capability. Simultaneously, it provides a positive outlook on how a person sees his financial matters.

8.2.2 Suggestions based on the Relationships between Financial Knowledge and Financial Behaviour

Besides financial attitude and financial efficacy, improving financial knowledge is essential for individuals to make informed decisions about their money and achieve financial well-being (Riitsalu & Murakas, 2019). To strengthen financial knowledge, one should start reading books on personal finance by reputable authors and following financial blogs and websites like Investopedia. Analysing tips from financial experts and enrolling in online courses on platforms like Coursera, edX, or Udemy helps an individual make informed decisions about his finances and investments. Many community organisations and financial institutions, from time to time, offer financial literacy programs for free or with a minimal fee. Downloading and using personal financial apps like Mint, YNAB (You Need a Budget), or Personal Capital may help to track one’s expenses, set budgets, and manage investments. YouTube is an excellent resource for finding financial education channels. Channels like "The Financial Diet" and "Graham Stephan" offer valuable insights on personal finance. Participation in online forums and communities like Reddit's personal finance or Bogleheads.org helps people ask questions and learn from others' experiences. Subscription to financial newsletters like Money-excel, Business Standard, or Chartered Club for regular updates on the financial markets and investing. Consultation with a certified financial advisor or planner for personalised advice and guidance helps review and adjust personal goals regularly. Learning about different investment options such as stocks, bonds, mutual funds, and real estate helps an individual understand the risks and rewards associated with each type of investment. Knowledge of the basics of taxation, tax-efficient investing strategies, etc., also updates individuals on how to save more. Sharing one's financial goals with a trusted friend or family member can also help analyse what went wrong and determine how to avoid similar errors in the future.

8.2.3 Suggestions based on Relationship between Financial Inclusion and Financial Well-being

Apart from financial behaviour, financial inclusion is much needed to improve individuals' financial well-being. Financial inclusion is defined as individuals and businesses having access to valuable and affordable financial products and services that meet their needs, such as transactions, payments, credit, savings, and insurance, supplied ethically and sustainably (World Bank Report, 2022).

As mentioned earlier, financial behaviour is one of the critical elements for achieving financial behaviour. Still, for positive and effective financial behaviour, financial products must be available at affordable and suitable conditions in the financial system. If more and more people have access to financial products, they can save for future financial events and feel financial freedom. Financial inclusion is on the priority list of the Indian government, and the government is making many remarkable efforts to move in the same direction.

- Digitalising financial services is one of these efforts, and providing affordable financial services is paramount. The Indian government has implemented many initiatives to promote and support digital payments. The government's 'Digital India' programme aspires to establish a 'digitally empowered' economy that is 'faceless, paperless, and cashless'. However, high-speed internet penetration is a must to regulate these services. Undoubtedly, the government has carefully designed Digital Public Infrastructure (DPI) to provide transformational solutions. As per (the Internet penetration rate in India from 2014 to 2024) internet penetration in India in 2024 is 52.4%. This penetration must be increased to give more access to affordable and widely covered financial products. The government must invest in digital infrastructure, such as mobile networks and internet connectivity in rural areas, to ensure that individuals in remote areas can access digital financial services and promote the adoption of digital identification systems so that more people can access affordable financial products.

- Aadhaar, a unique identification system, DigiLocker, DigiYatra, Unified Payments Interface (UPI), BharatNet, AarogyaSetu, CoWIN, and other initiatives have been implemented to promote financial inclusion and integrate data so that it is accessible to various stakeholders in order to make financial inclusion a reality. However, there are many barriers to implementing the real spirit of these programs like less political will and support for digital public infrastructure, the low availability of investments of public funds, and less assurance of solid privacy and security measures to protect citizens' information (Times of India, 2023). Partnerships with private financial institutions and fintech companies will help develop innovative and affordable financial products, services, and IT support for data security. This sector also needs to encourage the development of agent banking networks to provide access points for financial services in remote areas.

- People still believe in borrowing from unorganised sectors like friends, private lenders, employers, etc. (Khan, 2020), as organised financial institutions require more formalities and documentation. However, borrowing from a family or an unorganised sector can ruin relations, and more interest is charged when one needs money urgently. As per a survey by the Centre for Monitoring Indian Economy (CMIE) 2022, Indians are still forced to take loans from money lenders either because they do not have access to financial services or because the formal lending channels need more documents. The same survey found that a significantly higher percentage of households (29%) in Chhattisgarh borrowed money from a moneylender. Every day, newspapers report about suicides of people in some parts of the country due to the inability to pay loans. RBI must take more actions to lower formalities and relax the stringent rules so that people should start relying on and prefer banks to take loans at regulated rates. For this purpose, streamlining the loan application processes, reducing documentation requirements, and implementing faster approval mechanisms are required. RBI should offer lower interest rates to encourage banks to reach out to underserved population segments to extend credit to marginalised communities and small businesses. Enhancing consumer awareness, encouraging innovation in loan products, reviewing collateral requirements, facilitating peer-to-peer lending platforms, and continuous monitoring and correct feedback will also help people to be financially included.

- Loans are taken when an individual does not have savings for future events. In this study, respondents reported that they cannot save or invest due to a lack of financial knowledge, more risk, lack of money, and lack of documentation. In India, Pradhan Mantri Jan Dhan Yojana (PMJDY) states that banks must offer no-frill accounts or amenities such as overdraft capabilities, insurance, and pension plans. Still, there is a need to bring millions of unbanked people into the official banking system and give them access to cheap digital financial services. About 20–25% of the accounts opened under PMJDY are idle or inactive. Many accounts have balances under INR 500, which restricts account holders' ability to do financial transactions. Many account users cannot efficiently use their accounts for savings, loans, and other financial services. It can also result in misuse or underuse of banking facilities, preventing people from taking full advantage of the programme. Rural India lacks sufficient banking infrastructure, including bank branches, ATMs, and dependable internet access—essential for efficient banking operations (Swain, 2023). These problems can potentially cause inefficiencies and lessen the efficacy of government assistance programmes connected to these accounts. This may result in a rise in dormant accounts, duplicate accounts, and a lack of access to digital banking (Parekh, 2023). A lack of digital literacy makes it difficult for rural customers to avail of banking services.

- More people can become financially included through financial literacy programs that raise awareness of the advantages of using banking services. Incentives like interest rate benefits, cashback on digital transactions, small credits and regular engagement campaigns can encourage people to use more financial products. The limited financial services offered under PMJDY will be resolved with initiatives like combining microcredit, microinsurance, and pension plans and utilising technology platforms and fintech companies to offer a broader range of services. Using mobile banking vans to deliver services in isolated areas and improve internet connectivity and digital banking infrastructure will ensure last-mile service delivery. The government should share the cost of the above services to compensate banks. Advanced security measures like biometric authentication and routine audits can be implemented to guard against fraud and scams.

- In addition, to promote financial inclusion and socioeconomic development, the Indian government has implemented several subsidised loan schemes for specific sectors, such as agriculture, housing, and small companies, with lower interest rates and more flexible repayment periods. These initiatives highlight the government's dedication to providing cheap financial products for citizens' welfare and empowerment. As mentioned above, there is a need for deep penetration of these services so that these affordable facilities can reach every individual in the country. The government offers many schemes like loans for Startups in 59 Minutes, Mudra Yojna, SIDBI Make in India plan, Credit Guarantee Scheme for Subordinate Debt (CGSSD), Credit Linked Capital Subsidy Scheme (CLCSS), etc. Despite the Govt's continuous initiatives, support and efforts, the present systems cannot bear the required fruits; as per MUDRA Yojna's report (2020), the financial sector does not receive sufficient institutional funding despite its critical relevance. Mudra loans suffer from high non-performing assets (NPAs) due to a lack of financial literacy and awareness and inadequate support for first-time entrepreneurs. Internal operational inefficiencies are also responsible for limited post-loan support and monitoring. Apart from that, regional disparities in loan distribution, complex documentation and delays in the application processing are the other barriers to the success of this scheme. To complete the targets, more focus should be placed on quantity over quality (Naval, 2023). These types of problems in this, as well as in similar schemes, can be addressed by

1. Enhancing the credit appraisal procedure by implementing stricter evaluation standards and improved risk assessment instruments.
2. Improving the accuracy of borrower risk profiles through data analytics and AI.
3. Implement an ongoing supervision and guidance system for borrowers to guarantee appropriate loan use and prompt payback.
4. Implementing focused financial literacy initiatives to inform current and prospective borrowers about the value of credit discipline, money management, and the loan application process.
5. Conducting workshops in partnership with NGOs, community leaders, and educational institutions, particularly in underprivileged and rural areas.
6. Establish one-stop service centres to help business owners with any questions, document preparation, and the application procedure.
7. Helping new business owners flourish by offering mentorship, training, and business development services.
8. Support outreach initiatives for rural areas and encourage banks to use mobile banking services or joint ventures with community organisations to reach underprivileged communities.
9. Incorporating recurring evaluations and follow-ups with debtors to offer continuous assistance and tackle new concerns.
10. Recognizing banks and other financial institutions for the longevity and success of the companies they sponsor and for the loans they make.

The success of financial inclusion cannot be achieved without comprehensive coverage of insurance products. As per the insurance regulatory body, IRDAI, insurance penetration in India increased from 3.76% in 2019-20 to 4.20% in 2022-23, with the life insurance penetration in 2023 being 3% of GDP (Riddhima Bhatnagar, 2024). Still, much effort is required to cover people covered by insurance products. Lack of insurance in all fields of life gives rise to unexpected expenses, which leads to the erosion of savings that are meant for some other future financial event. The government can achieve more penetration of insurance products under the pretext of financial inclusion by adopting the following initiatives and programmes.

1. It should start national initiatives to raise awareness about insurance benefits.

2. Insurance literacy should be included in the curriculum to teach the younger generation at a young age.

3. Seminars and workshops on insurance products and their usage in rural areas should be arranged in collaboration with self-help organisations, community leaders, and NGOs.

4. Affordable, easily comprehensible insurance solutions, such as microinsurance, should be devised that suit the requirements of rural and low-income communities.

5. Insurance products should be offered with other financial products, such as loans, savings accounts, or government programs (e.g., crop insurance combined with agricultural loans).

6. Insurance products should be available online and mobile, eliminating in-person meeting requirements to increase reachability.

7. Insurance companies should collaborate with telecom providers to provide insurance via mobile devices, using USSD (Unstructured Supplementary Service Data) or SMS services for convenient access.

8. Data analytics should be deployed to target particular individuals based on their demographics, and AI (artificial learning) should be deployed to evaluate risks and provide customised insurance policies.

9. Present networks of post offices, cooperative banks, and banking correspondents should be administered to distribute insurance goods.

10. Members of self-help groups (SHGs) and microfinance institutions (MFIs) must collaborate to promote insurance products.

11. Community volunteers or local insurance agents should be trained and authorised to promote insurance products, particularly in outlying locations.

12. Tax breaks and insurance premium subsidies should be provided to Rural and low-income communities.

13. Public and private insurers should partner to establish programs that address particular needs, such as health insurance for the underprivileged (Ayushman Bharat, for example).

14. In case of issues related to claim settlement or surrendering the policy, local hotlines or claims support centres with authorised and trained agents should be established to assist policyholders.

Collaboration between stakeholders, such as governments, public and private insurance companies, financial institutes, new-age Fintech companies, Tech stacks, and training institutes, is required to provide insurance products to the last mile.

8.2.4 Suggestions based on Improving Financial Well-being

To ensure the stability of individuals, the government should set more schemes like the Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) to assure fair minimum wage throughout the country and enforce labour protections to ensure that individuals earn a living wage, have job security, and receive benefits like paid sick leave and retirement contributions and also address the high cost of healthcare by implementing policies that make it more affordable and accessible. All these efforts will reduce the financial burden on individuals and families, and saved money can be used to invest in some future event that requires money. However, delay and insufficiency in funds dispersal, caste-based segregation, ineffective role of Panchayati Raj institution (PRI), large number of incomplete works, issue of quality of work and fabrication of job cards are some problems faced by this scheme (Nandy, 2023).

- The government should prioritise the financial well-being of youth. The government should also support individuals struggling with debt by providing counselling services, affordable sources to raise debt, and programs that offer relief for student loan debt, medical debts, etc. The government should also take the initiative to invest in workforce development programs that provide individuals with the skills and training to secure higher-paying jobs and advance their careers (more initiatives like Make in India).
- The government can also help individuals save money by relaxing tax norms because high taxes eat individuals' income. The government should implement progressive tax policies that distribute the tax burden fairly, support low and middle-income individuals, and provide tax incentives for savings, investments, and pension accounts. Sweden, for example, offers many tax benefits to promote investment and savings. The Swedish government offers tax deductions for contributions to pension funds, encouraging people to set aside money for retirement. It facilitates long-term financial planning and enables individuals to protect their financial destiny. In addition, Sweden's tax policies frequently incorporate measures intended to re-distribute wealth and give benefits for social welfare, making sure the tax burden is evenly divided throughout the population and assisting those with lower earnings through a variety of social programmes.
- Apart from taxation, strengthening and expanding retirement savings options, such as employer-sponsored retirement plans and government-sponsored retirement programs, can help individuals save for their after-retirement time, just like in Australia, where the government has implemented extra measures to boost retirement savings. One such policy is the Superannuation Co-contribution Scheme, which matches low and middle-income individuals' voluntary payments to their pension accounts up to a set amount. It gives them an added incentive to invest for their retirement. Australia also provides tax breaks for contributions made to superannuation accounts, such as reduced tax rates on investments and earnings within the pension plan. These tax breaks encourage people to contribute more to their retirement funds, increasing their financial stability later in life.

- Individual’s financial well-being is possible if the government enforces regulations and consumer protection laws to protect individuals from predatory lending practices, fraud, and financial scams, as well as establishes and maintains social safety net programmes such as unemployment benefits, food assistance, and housing support. All this will provide individuals in the country with knowledge, counselling, and confidence, allowing them to reshape their financial goals towards fulfilment through positive financial behaviour. The government should also vigorously enforce and strengthen consumer protection laws to safeguard individuals from predatory financial practices, such as high-interest payday loans, hidden fees, and fraudulent schemes, and establish or expand social safety net programs to help individuals weather financial hardships.

8.2.5 Suggestions for Financial and Educational Institutes

- With the government's help, financial institutions can also make crucial decisions to promote financial inclusion in the country. Financial inclusion has proved to be a beneficial tool to enhance the financial well-being of individuals, especially those who are underserved or excluded from the formal financial system. Financial inclusion promotes economic growth, reduces poverty, and enhances societal well-being. The government should ensure that all citizens can access affordable banking and insurance services. In today's digital era, financial institutions must support the government's 'Digital India' campaign and put lots of effort into fostering the growth of financial technology (FinTech) to make financial services more accessible and convenient, particularly for underserved populations. At the same time, regulations of banks, credit unions, and other financial institutions are required to ensure they operate fairly and transparently to prevent systemic risks that can harm individual savers and investors and to earn their trust for saving with them.

- By implementing financial education programs, educational institutes can also improve people's understanding of financial products, budgeting, and savings; simultaneously, they can conduct awareness campaigns to educate the public about the benefits of formal financial services (Chan et al., 2012). Undoubtedly, the government has started many educational programs like the National Strategy for Financial Education (NSFE) 2020-2025, RBI Financial Literacy Centers (FLCs), Investor Education and Protection Fund Authority (IEPFA), Securities and Exchange Board of India (SEBI) Financial Education Programs, National Centre for Financial Education (NCFE) with the help of educational institutes like National Institute of Securities Markets (NISM), Institute of Chartered Accountants of India (ICAI), Indian Institute of Management (IIMs), National Stock Exchange (NSE), Bombay Stock Exchange (BSE) Institute, Financial Planning Standards Board India (FPSB India). However, all these schemes will give their best results if some initiatives are implemented fully, such as enhanced funding, teacher training, community engagement, curriculum reforms, monitoring and evaluation, educational incentives, and adult literacy programs. Our youth, especially in rural areas, possess shallow financial knowledge. Governments can invest in financial education programs to improve individuals' understanding of personal finance, including budgeting, saving, investing, and managing debt. Educated individuals are better equipped to make informed financial decisions.

So, government, financial, and educational institutions' initiatives to spread financial knowledge and give more people access to affordable savings, investments, borrowing, and insurance products can help people save more and invest in financial products with more returns. This will help ease the circulation of money in the economy, boost liquidity, and improve an individual's financial well-being.

8.3 LIMITATIONS AND FUTURE RESEARCH AGENDA

As every research work is completed within some boundaries, the present research work also has some limitations. The limitation has different connotations, but the word ‘limit’ is used from the perspective of the boundaries within which the present work is completed in the current situation. Since the respondents belonged to the Punjab state of India only, the location is one of the limitations of the recent research work. Money and time were also limiting factors in the present work as the complete research is self-funded. The researcher cannot collect the data from other states of India because of limited time and money resources.

One of the main objectives of the research work is to find the factors that build a sense of financial well-being in any individual. The literature review considered important variables like financial attitude, financial efficacy, financial knowledge, financial behaviour and financial inclusion. Still, other factors may also influence the individual’s financial well-being. Still, these factors explain only a 32% variance in an individual's financial well-being. Hence, the researchers shall study other factors explaining individual financial well-being variability. The present research does not study respondents' risk factors and stock market behaviour. Still, the researchers shall examine the investment biases and risk factors involved in their future works on financial well-being. The impact of government policies on those who are economically disadvantaged and marginalised within the framework of financial inclusion has not yet been thoroughly researched. Therefore, future studies may examine how successfully government programs and policies contribute to people's financial well-being through financial inclusion. A longitudinal study of financial well-being can also be explored to determine the long-term impact of financial inclusion, financial behaviour, and financial knowledge.

Chapter – 9

MANAGERIAL IMPLICATIONS

When any research is conducted, various stakeholders are expected to benefit or be affected by the findings. The current study investigates the aspects that influence an individual's financial well-being. From the findings of the study, the following stakeholders are expected to be benefited:

- Individuals
- Government
- Financial institutions
- Educational institutions
- Others

9.1 INDIVIDUALS

This study will benefit individuals, helping them make informed decisions and improve their overall financial health. It will also help people make informed financial decisions in various aspects of life. Understanding financial well-being enables individuals to create effective budgets and financial plans. They can manage income, expenses, and savings to achieve short-term and long-term financial goals. This study will motivate individuals to develop strategies for managing and reducing debt. It involves understanding interest rates payment terms and developing a plan to pay off debts efficiently. Understanding the path to financial well-being can empower individuals with the knowledge required to make informed investment decisions. It includes understanding different investment vehicles, risk management, and creating a diversified investment portfolio. It all will make an individual emphasise the importance of having an emergency fund, which can provide a financial safety net in case of unexpected expenses or loss of income. Apart from creating emergency funds, individuals will also be sensitive to investments for upcoming expenditures for life events like children’s education, marriage, and retirement. It will help to understand retirement accounts, estimate retirement expenses, and develop a strategy to save for retirement. This study will inform individuals about their financial fronts and improve negotiation skills, such as when discussing salaries, loans, or contracts because financial knowledge provides a basis for making well-thought-out financial decisions in both personal and professional settings.

Financial stress is a significant concern for many individuals. Studying financial well-being and implementing sound financial practices can reduce stress related to money matters. Knowledge about financial well-being can help individuals maintain a healthy credit score. It is vital for accessing favourable loan terms, lower interest rates, and other financial opportunities. Financial well-being is not a one-time endeavour. It's a lifelong learning process. Studying financial well-being encourages individuals to stay informed about changing economic conditions, financial markets, and personal finance strategies.

9.2 GOVERNMENT

The government will also benefit from the research. Because the current study looks at the factors that influence people's financial well-being, it will assist the government in devising measures to help more people achieve their financial well-being. Financial attitude, financial knowledge, financial behaviour and financial inclusion, among other things, contribute to a person's financial well-being. The government of any country can extend the skills mentioned earlier to its citizens by utilising the potential of financial inclusion as well as financial literacy programmes for imparting financial knowledge to individuals to improve their attitude and self-confidence towards money, which will, in turn, lead to positive financial behaviour, which is an essential factor for individual’s financial wellbeing. People's financial well-being helps the government collect more tax revenue. As people's financial well-being improves, they can pay more taxes to the government, and the money gathered may then be utilised to provide additional cash to support public services and infrastructure. Collecting direct and indirect taxes is the government's primary source of revenue. Financially secure people contribute to a decrease in the government's obligation since they are less likely to rely on government assistance programs such as unemployment benefits, food, and housing subsidies. It could reduce government spending on social welfare programmes, freeing up resources for other priorities. The money saved can be used to improve and upgrade people's living standards by investing in people's welfare programmes. People tend to spend more when they have much more money, encouraging economic activity. This increased consumer spending can support businesses, create jobs, provide more significant tax income for the government, and contribute to the country's economic progress. When people are financially secure, they can meet all their demands on time. It can spend whenever required, which increases the demand for various products in the country and leads to the establishment of more industries to meet the increased demand. Financially stable individuals are frequently healthier because they can afford better healthcare and have fewer health issues caused by stress. It may lower government healthcare expenses if fewer people require expensive medical treatments or emergency care. Individuals with better financial health are likelier to have strong credit scores and access to affordable credit. It can lead to lower default rates on government-backed loans and a healthier financial system overall.

Financial well-being aids in reducing financial stress and inequalities and can contribute to more social stability, fewer occurrences of crime and civil unrest, and a more unified community. As a result, government spending on law enforcement and social safety net programmes aimed at alleviating the repercussions of insecurity may be reduced.

Lastly, individuals are less likely to rely only on government-funded retirement benefits when they have access to retirement savings programmes and financial education. It can reduce the load on government-funded pension schemes while ensuring that retirees can financially support themselves. To summarise, the government may reap all of the abovementioned benefits by implementing and promoting financial literacy programmes in schools and communities, ensuring that individuals have a solid foundation in financial knowledge and making available rational and affordable retirement plans.

9.3 FINANCIAL INSTITUTES

Other stakeholders who can benefit from this study include financial institutions. To achieve a state of financial well-being, individuals should avail a variety of affordable financial services suited to their needs, such as savings accounts, investments for different occasions like children's marriages, their studies, low-cost loans, and retirement investment alternatives, etc., from financial institutions. These offered products help individuals more likely to save and invest. At the same time, it results in increased revenues for financial institutions. Simultaneously, by providing accessible and affordable loans, financial institutions can increase the trust and loyalty of individuals. Studies have found that individuals are likelier to stick with a bank or credit union that helps them meet their financial objectives (Fried et al., 1993). These efforts of financial institutions lead to an increase in their revenue from fees, interest, and asset management services. From time to time, many agencies collect data from the Population Census, Payroll Reporting, NSSO, Labour Bureau and Indian Labour Statistics, welfare data by government agencies, and financial inclusion statistics, etc.; along with this, if data related to customer engagement through financial well-being initiatives is collected and used by financial institutes, will also provide significant insights into customer behaviour and preferences. Financial firms can utilise this data to improve their products and services. As more customers engage with financial institutions to improve their financial well-being, there will be more opportunities to cross-sell various products and services, such as insurance, retirement accounts, and investment products, to connected clients. As sales increase, financial institutions will increasingly be able to deliver innovative, cheap, personalised products for consumers' financial wellness, and these activities will help promote individuals' financial well-being. They will improve a financial institution's brand reputation and community involvement. A positive image will again attract new clients while maintaining existing trust. Financial well-being programmes can make one institution unique in a competitive financial business. It will potentially attract customers who value financial education and help. When there are more loyal and financially secure consumers who are financially well-educated and empowered, they will be less likely to make financial mistakes, lowering the need for customer service enquiries and dispute settlements. It will result in cost savings.

Financially sound customers are less likely to fail on loans or credit card payments (Robb, 2011). By dealing with them, financial institutions can minimise their credit risk and save on loan loss provisions by assisting customers in improving their financial health. However, financial institutions can execute various actions to help people become financially secure, gain financial freedom, and live financially stable lives; in reward, clients' stability will allow institutions to be stable, well-reputed, and expert in their products. In short, by assisting individuals in achieving their financial goals, financial institutions can contribute to their and their clients' long-term financial stability. Long-term growth and sustainability are possible because of a steadier and more predictable consumer base. These financial institutions may include banking services, insurance companies, provident funds, mutual fund companies, stock brokers, credit card issuers, and non-banking financial companies, which can study the needs of individuals to cater to different financial expenditures at various stages of life and help them to save for the same by offering affordable financial products.

9.4 EDUCATIONAL INSTITUTES

Offering financial well-being programmes can improve an institution's reputation as a caring and responsible organisation, which gives goodwill and more students to educational institutes. Prospective students and staff may be more likely to choose a school known for its dedication to increasing their financial well-being in placements, in-depth financial literacy in the case of students, and good salaries and other financial benefits for staff members. In the present scenario, students are under much pressure regarding their studies and careers and how they will grow. These programs, including financial knowledge, investment strategies, risk-return analysis, and financial stress counselling, help students in financial hardship and are more likely to drop out of school. Financial education, tools, and assistance can help enhance student retention rates, ensuring that the institution receives a constant stream of tuition money. Conversely, institutions will also assist students in making educated decisions about student loans and managing their debt responsibly. Lower default rates may positively affect an institution's eligibility for various governmental grants and accreditations.

Alumi organisations can greatly assist these programmes because they may be more inclined to give financial back to the institution through donations or mentorship programmes. Big IITs and IIMs are examples of this. The 1998 graduates of the Indian Institute of Technology (IIT), Bombay, honoured their silver anniversary reunion with a pioneering gesture—a collective contribution of a record-breaking Rs 57 crore to their alma university (Alumni contribution- TOI, 2023).

Graduates who receive assistance from financial well-being programmes are more likely to maintain a positive relationship with the institution in the long run, potentially leading to continued support, partnerships, and collaborations. This process can continue for a longer period to help educational institutes' new associates.

Educational institutions can design sector-specific financial well-being programmes based on their needs and demands. Employees can benefit from programmes that alleviate financial stress, resulting in higher job satisfaction, productivity, and lower turnover rates. These financial education programmes can assist individuals in making educated decisions, lowering the likelihood of financial mismanagement. It can shield students and faculty from financial crises and any legal or reputational issues for the institution.

From time to time, many government bodies present funding projects for and grants to educational institutions that show a commitment to financial literacy and well-being activities. To reap these benefits, educational institutions must incorporate financial literacy into school and college curricula, teaching students about budgeting, saving, investing, and debt management. They must provide financial literacy training and seminars to students and the general public. Reduce the financial burden of education by offering scholarships and grants to students from low-income families. Make materials and counselling services available to assist students in making educated decisions about student loans and repayment options. Professional counselling must assist students in making informed professional choices that match their financial goals and aspirations. It helps to increase the strength of admissions in that institution.

Collaboration across these three sectors—government, financial institutions, and educational institutions—can significantly improve individuals' financial well-being by providing education, access to financial services, and a supportive regulatory framework.

9.5 OTHERS

Others who benefitted from this study are media companies, online educators and financial application providers, healthcare providers, consumer advocacy groups, non-profit organisations, and employers who assist people in achieving financial well-being. Media outlets, bloggers, and financial educators can enhance their screen time by spreading information and knowledge about personal finance and influencing public awareness and behaviour. They are handsomely paid for every increase in screen time.

Financial applications like ET money, Grow, Paytm, Phone pay, etc., exist to provide financial solutions to individuals' investment problems. The financial applications help to give and suggest many financial solutions related to savings, investment, insurance, credit cards, portfolio construction, wealth creation, etc. It allows individuals to take one more step towards their financial well-being and helps these applications sustain and profit in this competitive world. If financial applications handle individuals' unique and unattended financial problems and provide tailor-made products to all segments of society, they will have more financial inflows than other applications.

Healthcare providers and health insurance companies may enhance their footfall by assisting people in managing their healthcare expenditures and providing financial assistance at affordable prices in a medical emergency, as large medical bills are now driving many into poverty. As mentioned earlier, a big chunk of India's population is only one heavy medical bill away from poverty.

By charging an affordable fee, consumer advocacy groups can boost their clientele by advocating for consumer rights and fair financial practises, suggesting guaranteed and secure financial products and safeguards against predatory financial products and services. Financial literacy organisations, counselling services, and charitable foundations, among others, seek to increase financial literacy and provide resources to individuals and families in need. At the same time, they can increase their clientele and financial inflows.

Employers can assist employees in achieving financial security by providing salary packages, retirement benefits, and financial education programmes. Employee financial stress can impact job performance; many employers emphasise assisting their employees' financial health. Employers get improved work efficiency and employee loyalty by helping employees achieve financial well-being, which is critical for a successful business.

Chapter – 10

CONCLUSION

This research aimed to investigate factors influencing an individual's financial well-being. The conceptual model for the current study was developed by considering the numerous aspects that have the most significant impact on financial well-being. All the factors introduced in the conceptual model were critical to achieving the study's aims. The data for the study was gathered from the state of Punjab, which has a higher per capita income than the rest of the country. The current study's sample size was 1100, and the data was collected using purposive sampling. The data was analysed using multivariate analysis with PLS-SEM versions 3.2.9. After researching the aspects that influence people's financial well-being. It was discovered that all of the elements considered in the study, such as financial attitude, financial efficacy, financial knowledge, financial behaviour, and financial inclusion, impact individuals' financial well-being. Most people avoid financial decisions that do not suit their pattern of decision-making. This is because of a lack of financial mindset (Park & Mercado, 2015). A child's future economic behaviour is heavily influenced by his environment, what his parents teach him, and his inner thoughts before he starts school (Kalra, 2013). According to Bandura (1994) and Gecas (1989), the fundamental concept of self-efficacy is an individual's self-agency, which stems from the conviction that he can complete a specific task and, more broadly, deal with life's challenges.

Subjective financial knowledge is positively related to saving and investing, regardless of how much objective financial information a person has. Allgood and Walstad (2016) link the buildup of emergency funds, short-term savings, and spending to subjective knowledge. These components unambiguously demonstrate how a person's financial behaviour affects his ability to ensure financial stability (Gutter & Copur, 2011).

As a result, it is hypothesised that the abovementioned elements influence people's financial well-being. Financial conduct was the most crucial element affecting individuals' financial well-being, followed by financial inclusion and financial attitude. The other elements also considerably impacted intention, albeit less than these three. The beta value (r) of each relationship was discovered to agree with the effect size (f^2) of the same relationship. The connection between (financial behaviour n financial inclusion) and (financial behaviour n financial well-being) had a significant impact size. The size of the effect between financial attitude and financial behaviour was medium. The effect size of the associations between (financial efficacy and financial knowledge on financial conduct) and (financial inclusion n financial welfare) was negligible. As a result, it is proposed that while all components significantly influence individuals' financial well-being, financial behaviour and financial attitude influence the dependent variable more than the other factors. The theories of planned behaviour, financial well-being and subjectivist well-being were considered while creating the conceptual framework. The theory of planned behaviour explains that individuals act rationally according to their attitudes, subjective norms, and perceived behavioural control. As per the theory of financial well-being, humans aim to maximise their financial well-being, for which they must develop their financial behaviour, and subjectivist theories of well-being state that an individual’s well-being is determined by whether or not his desires are satisfied—whether or not he obtains what he wants. However, those wishes cannot be criticised. These wishes may be very small or big, but once these wishes are fulfilled, a person achieves financial well-being.

The preceding literature also lends support to the current work. Financial attitude and financial behaviour are more strongly associated with working women's financial literacy than financial knowledge (Rai et al., 2019). Financial mindset also influences how much should be saved, invested, and wasted (Yong et al., 2018). Financial efficacy, like attitude, influences financial behaviour. Investors should have more financial self-efficacy to reduce debt, challenges, and stress, resulting in increased savings and financial pleasure (Lapp, 2010). Amagir et al. (2020) discovered a marginally favourable association between financial self-efficacy, financial literacy, and financial behaviour.

Both of these variables contribute to improved financial conduct. On the other hand, poor financial habits result from a lack of financial awareness (Disney & Gathergood, 2013). According to (Hilgert et al., 2003), financial education is positively associated with the chance of timely bill payment, saving, investing, budgeting, and setting financial goals. Financial well-being results from very strong and positive financial behaviour. Financial pleasure, a marker of financial welfare (Shim et al., 2010; Xiao et al., 2009), intention, and healthy financial behaviour are all highly and positively related to perceived behaviour (Shim et al., 2010).

In his study, Bagwell (2000) discovered that after a year of participation in a credit counselling and debt management plan, respondents' health improved, and their financial problems diminished. Financial inclusion is critical during this process. Access to financial products and services, such as insurance, bank accounts, and credit, improves one's financial well-being. People with lower inclusion levels often have poorer financial health because they cannot spend their money correctly and achieve the necessary returns (Banerjee et al., 2015). According to Zemtsov and Osipova (2007), financial inclusion allows people to obtain income and assets, which improves their financial security.

As a result, the government, financial institutions, and educational institutions must work together to provide financial knowledge, inexpensive financial products, and flexible financial rules so that individuals can reap the benefits of all and progress towards financial well-being.

The moderation effect of financial knowledge was investigated in this study, and it was discovered that financial knowledge modifies the association between financial attitude and financial behaviour but not the association between financial efficacy and financial behaviour. According to Go et al. (2012), there is evidence of positive changes in student attitudes and behaviours if financial education is provided early in life. A person's financial behaviour is more advantageous if they have a positive financial attitude and knowledge. Students with financial education show a more positive attitude towards personal finance and are likelier to save (Batty et al., 2015). The study also looked at the role of financial inclusion in mediating the relationship between financial conduct and financial well-being. The findings revealed a partial mediation of financial inclusion between the relationship shared by financial behaviour and financial wellness. A higher financial behaviour score, in particular, is associated with a higher total financial inclusion score, which leads to more extensive financial product holdings and more active financial behaviour (Amagir, 2018).

The moderating effect of demographic characteristics such as age, education, income, and gender on the conceptual model was further investigated using MGA (multi-group analysis). PLS-SEM 3.2.9 was used to administer the MGA.

When the path coefficients for any connection are determined separately for each subset, the moderation effect of demographic variables evaluates whether there is any difference in the path coefficients of the subgroups. If the path coefficients of the subgroups differ, and the difference is significant using T statistics, it is assumed that the demographic variable moderates the relationship. However, before giving MGA, the entire model was subjected to the MICOM approach proposed by Henseler et al. (2016) to investigate the test of measurement invariance. Following the administration of the MICOM method, MGA was used to analyse the moderation effect of distinct subgroups of age (2 subgroups), gender (2 subgroups), education (3 subgroups), and income (3 subgroups) on the conceptual model. It was discovered that the two gender subgroups were regulating two relationships (ATT FIN_BEH and EFF -> FIN_BEH). The subgroups of educational status were found to be moderating three associations (ATT -> FIN_BEH, EFF -> FIN_BEH, FIN_BEH -> FIN_INC), while the subgroups of the 'income' variable were found to be moderating two relationships (EFF -> FIN_BEH n FIN_BEH -> FIN_WBNG). Only one relationship in the conceptual model was moderated by age subgroups (FIN_BEH -> FIN_WBNG). In other words, while investigating the moderation impact among age subgroups, it was discovered that no link was moderated except for one. Since financial well-being is moderated across educational and income divisions, Financial and academic institutions must devise different strategies to help the students and the individual working population.

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ANNEXURE

Dear Sir/Madam,

I Ruchi Sarwal is pursuing PhD. from Lovely Professional University in the field of Management. The topic for the research work is "Study of financial wellbeing: Understanding the role of financial behaviour, financial inclusion and financial knowledge." I request you to please spare some of your time to answer the questions asked in this questionnaire. I highly appreciate your support, and I assure that the information provided by you will be kept confidential and will be used for academic purpose only.

Section 1: The present section has questions related to your savings and investment behaviour. As already reiterated, the information provided will not be shared with anyone under any circumstances.

1. Do you save a part of your monthly income? (If yes, proceed further else thanks for the support)

   1) ☐ Yes 2) ☐ No

2. Since how long are you investing your savings?

   1) ☐ Less than 1 year 2) ☐ 1 - 3 years

   3) ☐ 4 - 7 years 4) ☐ 8 - 10 years

   5) ☐ More than 10 years

3. How much money (in Rs.) you save on monthly basis? (Select one option only)

   1) ☐ Less than 5000 2) ☐ 5001-10000

   3) ☐ 10001-15000 4) ☐ 15001-20000

   5) ☐ Above 20000

4. Among the following, what is best reason to open a bank account? (Select one option only)

1) ☐ Transactions 2) ☐ Savings

3) ☐ Loans 4) ☐ ATM cards

5) Any other ____

5. In a typical month, about how many times is money taken out of your personal account (s) ?

1) ☐ 0 2) ☐ 1-2 times

3) ☐ 3-5 times 4) ☐ More than 5 times

6. Which option you choose for making the transaction (Select more than one option if applicable)

1) ☐ ATM/Rupay Card 2) ☐ Branch Visit

3) ☐ Bank online App 4) ☐ Internet Banking

5) ☐ Wallets/UPI payments 6) ☐ Credit Cards

7) Any other____

7) From whom you seek advice for making the investments? (Select more than one option if applicable)

1) ☐ Self 2) ☐ Financial expert

3) ☐ Friends 4) ☐ Advertisements/ Media

5) Others_______________________________________

8) What are the factors that encourage you to invest. (Select more than one option if applicable)

1) ☐ Children Education/Marriage 2) ☐ Gift/Vacation/Pilgrimage

3) ☐ Meet unexpected Contingencies 4) ☐ Reducing Income Tax

5) ☐ Secured Retirement

6) Others _____________________________________

9) What are the different investment alternatives you prefer to invest (Select more than one option if applicable)

1) ☐ Mutual Funds
2) ☐ Bank FDs/RDs
3) ☐ PPF
4) ☐ Gold
5) ☐ Insurance and Pension Plans
6) ☐ Stocks/Debentures
7) ☐ ETFs (Exchange traded funds)
8) Any other ____

10) When reqd., what are the different sources from whom you can borrow money? (Select more than one option if applicable)

1) ☐ Family/friends
2) ☐ Employer
3) ☐ Private lender
4) ☐ Bank
5) ☐ Other financial institution
6) Any other ____

11) What are the different barriers that may restrict you from investing (Select more than one option if applicable)

1) ☐ Requirement of readily available cash
2) ☐ Lack of knowledge
3) ☐ Lack of money
4) ☐ Lack of trust
5) ☐ Lack of documentation
6) ☐ Too risky
7) ☐ No restriction to invest
8) Any other ____

Section 2: This section solicits your feedback on statements concerning various factors related to the research work under study. Please check the box or write 5 for Strongly Agree, 4 for Agree, 3 for Neutral, 2 for Disagree and 1 for Strongly Disagree, based on your response to the statement. (Only one response for every statement).

Statements	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
I am able to manage my budget even if unexpected expenses arise.					
I am able to easily achieve my financial goals.					
I comfortably find solutions to the financial challenges.					
I confidently manage all my financial requirements.					
I am confident that I will manage my financial expenses when I stop working (retirement).					
I am able to calculate the financial security requirements for my family.					
I am capable of managing the continuous money flow.					
I always pay all my bills on time.					
I usually stay within my budget or spending plan.					
I always keep some funds for emergencies.					
I invest in risky avenues/investment options for better returns.					
I take loans whenever I am not able to meet my financial needs.					

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I carefully consider the benefits of the product before buying that product.					
I keep some funds for long-term goals like children's education, buying a house etc.					
I will have sufficient funds for my retirement.					
I spend/invest money after careful planning.					
I believe that money is the ultimate symbol of success.					
I show signs of confidence when I have enough money.					
I take timely decisions to grow money.					
I set long term financial goals.					
I believe that if I borrow money, I have the responsibility to pay it back.					
I take financial risks to grow my investments.					
I have the habit of saving money even in difficult times.					
I believe that financial planning is necessary for retirement (time when I will stop working).					
I feel that there is no need to worry about my financial condition, if I meet my monthly expenditures.					
I don't worry about my financial decisions.					

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I feel satisfied with my present financial condition.					
I understand that financial security is beneficial for my family.					
I know that insurance is a way to reduce the financial risk.					
I know the amount of income required by me to maintain the present standard of living after retirement.					
I understand that having different types of investments and savings reduce financial risks.					
I know how to take financial decisions based on my financial condition.					
I understand that borrowing money to purchase an item, decreases money for future spending.					
I know that higher returns can be achieved by investing in risky schemes.					
I know that life insurance needs vary with age and the size of a family.					
I know the sources for getting the information about the financial services.					
I have better knowledge about the financial products.					
I have the understanding of many financial investments like shares, ULIPs (market linked insurance plans), fixed deposits, PPF, MFs etc.					

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I have comfortable and easy access to my bank branch.					
I have easy access to money withdrawal points (ATMs, Branch) from where I can withdraw.					
I have easy accessibility to credit/loan facilities.					
I visit bank/bank website regularly for making financial transactions.					
I find it comfortable to use e-banking services.					
E-banking/M-banking services have increased my frequency of banking operations.					
I have necessary documents to open a bank account/avail a loan/buy an insurance plan.					
I have invested in pension scheme as part of my retirement planning.					
Zero/low maintenance cost of ATM cards motivates me to withdraw money through ATMs.					
Low processing charges motivates me to take loans as and when I require the same.					
I can handle unexpected expenses.					
My future is financially secured.					
As I manage my money properly, I own most of the items that I want in my life.					
I enjoy my life as I manage my money properly.					

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I am confident that the money I saved will make me happy in future.					
Unexpected expenses (wedding gift, medical emergency) do not put a strain on my monthly finances.					
I have money left at the month end, even after making all the expenses.					

Section 3: This section has the questions related to yourself like gender, age, occupation, and other general information.

Gender

1) ☐ Male

2) ☐ Female

3) ☐ Transgender

Age

1) ☐ 18-25 yrs.

2) ☐ 26-35 yrs.

3) ☐ 36-45 yrs.

4) ☐ 46-55 yrs.

5) ☐ 56-60 yrs.

Educational Qualification

1) ☐ No formal Education.

2) ☐ Secondary (10th)

3) ☐ Higher Secondary

4) ☐ Bachelor's Degree

5) ☐ Master's Degree

6) ☐ Ph.D.

Profession

1) ☐ Govt Employee

2) ☐ Private Employee

3) ☐ Professional (Doctors, Lawyers, CAs etc.)

4) ☐ Businessman

5) ☐ Self-employed

6) ☐ Other ______________________________

Monthly Income

1) ☐ < 15K (Less than)

2) ☐ 15K - 30K

3) ☐ 31K - 50K

4) ☐ 51K - 70K

5) ☐ > 70K (Greater than)

Marital Status (Write "Y" for the selected option only)

1) ☐ Single

2) ☐ Married

3) ☐ Divorced

4) ☐ Other ______________________________

LIST OF PUBLICATIONS

Sr. No.	Publication Title	Journal	Publisher	Year of Publication
1	Factors leading to adoption of video on-demand service: an exploratory study	International Journal of Business and Globalisation	Inderscience	2018
2	A Study on Impact of Exchange Rate Factor on Indian Stock Market	Journal of Computational and Theoretical Nanoscience	American Scientific Publishers	2019
3	Unlocking Financial Well-being How Financial Behaviour and Ai-Driven Inclusive Finance Foster Financial Stability	Kurdish Studies	Society of history and cultural studies, Hong Kong.	2024
4	Reducing the financial stress: Role of financial behavior, financial inclusion, and financial stability	Int. J. of Sustainable Society.	Inderscience	Accepted (2024)
5	The role of financial behavior and financial inclusion in bringing financial well-being: a mediation analysis	Indian Journal of Finance	Scopus	Submitted August 2023

LIST OF CONFERENCES

Sr. No.	Paper presented at the conference	Conference	Year
1	Factors leading to preferential buying on E-commerce	Society of Technical	2016
2	Mahindra's SUV on a Bumpy Road	International Case Study Conference (INCSC-2017)	2017
3	Factors leading to adoption of Video on Demand Service: An Exploratory Study	Strategies for Global Competitiveness and Economic Growth	2017
4	Aaker’s brand Personality Scale and it’s Appropriateness for Banks in India	Dynamics of Financial Sector Reforms	2018
5	Blockchain in Banking and Financial Services Industry: A Systematic review and bibliometric analysis	Blockchain for Business: Embracing Digital Disruptions”	2022
6	Reducing the financial stress: Role of financial behaviour, financial inclusion, and financial stability	International Conference on Emerging Management Trends: Financial Literacy, Financial Inclusion and FinTech [3Fs]	2022
7	The Effect of Telepresence and Customer Engagement in Value Co-Creation, Trust Building and Purchase Intention towards Online Apparels	Marketing 5.0: Opportunities and Challenges	2022
8	The role of financial behavior and financial inclusion in bringing financial well-being: a mediation analysis	SIMS 14TH Annual International Research Conference	2023

LIST OF WORKSHOP AND FDP

Sr. No.	Workshop Title	Conducted by	Year
1	Structural Equation Modelling	GNA Business School	2021
2	Author's Workshop on Scientific Writing	Lovely Professional University	2023
3	Workshop on Simulation Teaching Pedagogy-'The Boardroom'	Lovely Professional University	2024