Financial Literacy and its Impact on Saving and Investment Behaviour: A Study in Arunachal Pradesh

A thesis submitted in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

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Registration No. TZ189823 of 2018

Department of Business Administration

School of Management Sciences

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"Commit to the Lord whatever you do and He will establish your plans."

Proverbs 16: 3

I DEDICATE THIS THESIS TO MY PAPA AND MUMMY

DECLARATION

I, Ms. Chiging Yamang, Research Scholar in the Department of Business Administration, School of Management Sciences of Tezpur University, Assam, hereby declare that this research work entitled "**Financial Literacy and its Impact on Saving and Investment Behaviour: A Study in Arunachal Pradesh**" is a bonafide work carried out by me under the supervision of Dr. Arup Roy. This work has not been submitted elsewhere for any other purpose.

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Certificate from the Supervisor

This is to certify that the thesis entitled ***"Financial Literacy and its Impact on Saving and Investment Behaviour: A Study in Arunachal Pradesh"*** submitted to the School of Management Sciences, Tezpur University in partial fulfillment for the award of the degree of Doctor of Philosophy in Management Sciences is a record of research carried out by ***Ms. Chiging Yamang*** under my supervision and guidance.

All help received by her from various sources have been duly acknowledged.

No part of this thesis has been submitted elsewhere for award of any other degree.

Date: (**Arup Roy**)

Place: Tezpur Signature of Supervisor

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Place: Tezpur Chiging Yamang

Dated:

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List of Abbreviations

APL	Above Poverty Line
BC	Banking Correspondent
BF	Business Facilitators
BPL	Below Poverty Line
BSE	Bombay Stock Exchange
CALD	Culturally and Linguistically Diverse
CD	Community Development
CFL	Center for Financial Literacy
ESG	Environmental, Social, and Governance
FA	Financial Attitude
FACT	Financial Awareness and Consumer Training
FAQ	Frequently Asked Questions
FB	Financial Behaviour
FEPA	Financial Education Program for Adults
FETP	Financial Education Training Programme
FK	Financial Knowledge
FLAP	Financial Literacy Awareness Programme
FLC	Financial Literacy Centre
FLCC	Financial Literacy and Counselling Centre
FSDC	Financial Stability and Development Council
GoAP	Government of Arunachal Pradesh
IGMS	Integrated Grievance Management System
INFE	International Network on Financial Education
MS	Micro Soft
MSSP	Money Smart School Program
NABARD	National Bank for Agriculture and Rural Development
NCFE	National Centre for Financial Education
NCFE-FLIS	NCFE-Financial Literacy and Inclusion Survey
NFLAT	National Financial Literacy Assessment Test
NGO	Non-Government Organisation
NSE	National Stock Exchange
NSFE	National Strategy for Financial Education
OECD	Organisation for Economic Cooperation and Development
OLR	Ordinal logistic regression
PFRDA	Pension Fund Regulatory and Development Authority
PhD	Doctor of Philosophy
RBI	Reserve Bank of India
RBIQ	Reserve Bank of India Quiz
RCBs	Rural Cooperative Banks
RRB	Regional Rural Banks

SCORES	SEBI Complaints Redress System
SEBI	Securities and Exchange Board of India
SHG	Self Help Group
SMARTs	Securities Market Trainers
SPSS	Statistical Package for Social Sciences
UAE	United Arab Emirates
UG	Under Graduate
UK	United Kingdom
USA	United States of America

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ABSTRACT

Title of the Thesis: Financial Literacy and its Impact on Saving and Investment Behaviour: A Study in Arunachal Pradesh

Researcher: Chiging Yamang

Supervisor: Dr. Arup Roy, Associate Professor, Department of Business Administration Tezpur University, Napaam, Assam, India, Pin- 784028

Periodicity of Research: The study covers a period of 2016 to 2021.

1. Introduction:

The ability to manage money and financial affairs effectively is becoming increasingly crucial in the twenty-first century. Over the past decades, developed and emerging economies have become progressively aware of the importance of ensuring that their citizens are financially literate. According to OECD, Financial literacy is "a combination of awareness, knowledge, skill, attitude and behaviours necessary to make sound financial decisions and ultimately achieve individual financial wellbeing."

Financial literacy is not just important for professionals in the investment and banking sectors but everyone who is responsible for managing their own financial affairs in everyday life. One of the major reasons for the rising importance of financial literacy is the growing complexities of financial products over the past decades, financial innovations, and the rising financial risks to individuals. People who lack financial literacy are ill-equipped to make sound financial decisions, which can have significant negative consequences for both personal and global financial resilience (INFE/OECD, 2009). Consequently, financial literacy is now widely regarded as a necessary life skill, and targeted financial education policies are seen as important components of economic and financial stability and development (OECD, 2021).

2. Review of Literature:

On reviewing the existing literature, it was found that some similar studies have been carried out on financial literacy all across the world. The majority of the studies have confirmed that financial is literacy is low among different groups of the society and needed to be improved.

Although some of work had already been done on investigating the bearing of financial literacy on financial behaviour, most of such studies were carried out in developed

countries such as the USA, UK, Australia and many others, but only few were found in developing countries (Murendo & Mutsonziwa, 2017; Sayinzoga et al., 2016; Thara et al., 2014).

From the literature reviewed so far, it was found that such studies in the context of India are also few (Bhushan, 2014; Bhushan & Medury, 2013; Bindhu, 2013; Jariwala, 2013; Prusty, 2011). While such studies are few in India, they are fewer in the North-East India to the best knowledge of the researcher. In particular, no such study has been found in Arunachal Pradesh which is one of the least developed states in India. Further, such studies on tribal people are even more limited.

Socio-economic and demographic influence on financial literacy and the impact of financial literacy on saving and investment behaviour have also been unexplored in Arunachal Pradesh to the best of the researcher's knowledge.

Thus, this study is a step in that direction, evaluating the state of financial literacy among individuals of Arunachal Pradesh and analyzing its impact on their saving and investment behaviour in a more intensive manner. At the same time, effort will be made to determine the relationship between various socio- economic and demographic factors that may affect financial literacy of tribal people in urban and rural areas of Arunachal Pradesh.

3. Objectives of the Study:

i. To assess the level of financial literacy of selected urban and rural areas of Arunachal Pradesh.
ii. To find out the relationship between the level of financial literacy and socio-economic and demographic factors.
iii. To study the impact of financial literacy on saving and investment behaviour of selected urban and rural areas of Arunachal Pradesh.

4. Scope and Limitation of the Research:

The main focus of the study was on household financial literacy in urban and rural areas. The research attempted to ascertain whether there is any disparity in the degree of financial literacy in both areas. It also aims to determine the relationship between various socio-economic and demographic factors that may influence the respondent's level of financial literacy. In addition, an effort is also made to find out the impact of level of financial literacy on the saving and investment behavior of households The study has considered only financial decision-makers of the household. The extent of the study is three districts

of Arunachal Pradesh that are selected on the basis of high, average and low literacy rate of Arunachal Pradesh according to census 2011.

5. Limitations:

i. The study is restricted to only three districts of Arunachal Pradesh viz., Papumpare, Upper Subansiri and Kurung Kumey. The study is therefore subject to geographical limitations.

ii. Due to the unavailability of proper data for the sampling frame and poor accessibility of houses in the study area, convenience sampling technique was used that has its own limitations.

iii. The study was conducted only on demand side of the financial literacy.

6. Research Methods:

The data is collected from both primary and secondary sources. Primary data was collected from respondents through a survey using a structured questionnaire from both urban and rural areas. Secondary data was collected from journals, theses, websites, annual reports, government publications, books, magazines and newspapers.

Multistage sampling method was used for this study which comprised of judgment or purposive, simple random and convenience sampling. The districts were selected on the basis of literacy rate viz highest, average and lowest according to census 2011. The target population for the present study are the financial decision-maker of the household belonging to the selected urban and rural areas in three districts namely Papumpare, Lower Subansiri and Kurung Kumey of Arunachal Pradesh. The total sample size for the present study was 800 households which are found to be well conforming to the sample size selected for similar studies. The sample size for both areas was divided equally in each district so that it can give an equal representation of the urban and rural populations in the selected districts of Arunachal Pradesh.

Both descriptive and inferential statistics are used to achieve the objectives of this study viz., Frequency distribution, Cross tabulation, Chi-square and Ordinal Logistic Regression. Further, software used for data analysis is MS Excel and SPSS (Statistical Package for Social Sciences) version 20.0.

7. Major Findings:

7.1 Findings for Objective One

The overall level of financial literacy was found to be low among the respondents. When a comparison was made between rural and urban, it was also found that rural people have less financial literacy than urban people in three districts of Arunachal Pradesh. With respect to the three dimensions of financial literacy, it was observed that the majority of the respondents have poor financial knowledge and behaviour in both areas. However, the result of this study suggest that the financial attitude performance of the respondents was comparatively better than financial knowledge and behaviour. More than half of the sample respondents have positive financial attitude in both urban and rural.

7.2 Findings for Objective Two

The study found a statistically significant association between several socioeconomic and demographic variables and financial literacy. However, among other factors, the respondent's level of education, category, occupation, respondent monthly income, household income and the area where they live had a strong association with their level of financial literacy. Furthermore, other factors such as the respondent's residence area, gender, age, a respondent additional source of income, the nature of their workplace activity, household size, number of dependents, and earning members in the family were found to influence the respondent's level of financial literacy in the study area. On the other hand, only the respondent's marital status and responsibility of money management in the house were found to have no bearing on their financial literacy.

7.3 Finding for Objective Three

The majority of respondents had neutral saving and investment behaviours, meaning that their activity was neither favorable nor bad. When comparing negative and positive responses, the majority of respondents were found to have negative saving and investment behaviour. When it came to saving, the majority of respondents put their money in the bank and in kind. In terms of investment, it was discovered that the majority of respondents put their money into financial products such as term deposits, insurance, and provident funds.

The majority of people prioritized their everyday home costs first, with children's marriage being the last. The safety of principle and low risk were considered to be the most important aspect examined before making any financial decision, while marketability was considered to be the least important consideration among respondents. General advice from friends, relatives, family etc. and best buy guidance from concerned persons like bankers, financial advisers etc. were shown to be the most preferred sources of information.

The model that respondents' level of financial literacy influences their saving and investing behaviours was supported by an ordinal logistic regression model. However, in the overall study area in general and the urban area in particular, it did not support the theory that financial attitude was a predictor of saving and investment behaviour. It also rejected the model that saving and investment behaviour in rural areas was determined by financial knowledge and attitude.

Further, it was found that demanding financial responsibility, lack of additional income and lack of knowledge about financial products and services are the main factors influencing respondents' saving and investing behaviour.

7.4 Additional Observation

1. No access to internet, no proper roads, lack of mode of transportation and lack of proximity to Bank are observed in some villages
2. Majority of respondents in rural areas are unemployed or are engaged in agriculture. Since their source of income is irregular, their saving and investment habit is poor.
3. Another interesting thing observed is the practice/obligation of giving donation between the clans/family/relatives for different purposes like wedding ceremony, medical issue or any other problems. Though such practice is helpful but it affects household budget.
4. Buying housie/lottery tickets is another practice which is found to be common in some parts of the study area. Due to pandemic, this practice has become more rampant.
5. In some rural areas, it was observed that schools are not functioning at all due to unavailability of teachers or infrastructure. It is mostly affecting poor children who can't afford private schools.

6. It is also observed that government's effort on financial literacy is not so effective at the ground level in the study area. Majority of respondents have hardly heard about financial awareness programmes.

7. Majority of sample respondents (92.5%) did not participate in any financial literacy programmes in the study area. The percentage of persons who do not participate in such programmes is 95.5% in urban and 89.5% in rural areas.

8. Suggestions:

1. It is advised that regulatory agencies committed to providing financial literacy should facilitate training to the general public focusing on the micro-level segment of persons in both urban and rural areas. Special focus on improving rural people's financial literacy on a regular basis and assess their progress should be done.

2. More efforts should be employed to improve the knowledge and behaviour of the people toward finance. One of the primary causes of inadequate financial literacy was discovered to be a lack of financial knowledge and behaviour in the study area.
3. Financial awareness programs by different stakeholders should be implemented well considering the need of both areas i.e., urban and rural.

a) Both theory and practical sessions should be provided with some evaluation programmes like pre-and post-program tests and follow up surveys.
b) Dramas, skits, public rallies, roadshows, films in different languages including local dialects can be shown specifically to the rural population in order to impart financial awareness and money management skills through NGOs, Self Help Groups, local governing members, educational institutions, banks etc.
c) Helplines in different languages including local dialects, social media, mass media can also play a crucial role in disseminating financial education.
d) Influential people like religious leaders etc. can also be engaged to spread awareness.
e) Proper implementation and timely evaluation of programme like National Strategy for Financial Education National Centre for Financial Education 2020-2025 (NCFE).

4. One-size-fits-all approach to spread financial literacy may not be suitable. As an alternative, personalized programmes should be developed in accordance with the requirement of the specific groups.
5. Start financial education program for individuals at an earlier stage without bias. Proper training of teachers in this regard is also to be given.

6. Regulatory organizations and various stakeholders can sponsor business and economics festivals in schools, colleges and universities.
7. Given that the majority of respondents prefer to save and invest in banks, commercial banks should use a number of measures to enhance awareness. Commercial banks should not blend the financial dealings of various categories of individuals. Dealings with vulnerable groups should be handled by a separate department staffed by properly trained personnel.
8. Banks should actively participate in the re-design of educational programmes, workshops, and training on financial matters according to the specific needs of the people, particularly in rural areas.
9. Financial literacy and counselling centers or bank correspondents should be staffed by local people who are familiar with the culture and mindset of tribals. Up-to-date training of such individuals/trainers on new financial products and services is also necessary.
10. Diverse knowledge on financial market procedures, long-term investment parking, risk management approaches, and predicted investment growth should be given to potential investors.
11. Additional suggestions:

a) Government should improve road, electricity and internet connectivity in rural areas to access various financial product and services.
b) Adequate protection must be reinforced to address issues of cyber security, data confidentiality, mis-selling, customer protection, and grievance redress.
c) As part of their Corporate Social Responsibility, businesses, including local businesses, should place an emphasis on increasing community financial literacy by delivering financial education to different target groups in a more personalized manner.
d) Financial literacy besides increasing the welfare of individuals and the economy helps in sustainability also. Therefore, various stakeholders should keep this point in mind while developing any programmes or plan to impart financial knowledge to anyone.

9. Contribution of the Study:

By analyzing financial literacy, the current study seeks to contribute to the efforts of improving financial literacy in Arunachal Pradesh. This study highlighted the level of

financial literacy among the tribal people of Arunachal Pradesh and its effect on their saving and investment behaviour. The relationship between various socio-economic and demographic factors and the financial literacy level of the respondents have also been found. Following the identification of people with poor financial literacy based on the findings, suitable study material can be developed, taking into account the people's location, age group, educational background, occupation etc. The study may help in devising personalized strategies for empowering specific sub-group of the people through financial education. This research could aid the government and various stakeholders in developing financial literacy programmes for the people of Arunachal Pradesh at the grassroot level.

10. Scope for the Future Research:

This study is an attempt to explore the financial literacy level of households and its linkage with saving and investment behaviour with the study of determinants among the individuals of three districts of Arunachal Pradesh. The study is restricted to these three aspects. In addition, the study's geographical scope can be broadened, and new districts or areas can be investigated for future research, using the current study as a foundation. Additionally, similar studies can be done on different tribes. Future researchers can also explore the supply side of financial products or services to address the problems in achieving better financial literacy among people. A comparison of the supply and demand side of the problem may provide valuable insights. A study on the role of culture or ethnicity on financial literacy can also be studied. Performance evaluation of various financial education providers in spreading financial literacy will be another interesting and important study. Further effectiveness of various policies and programmes on financial literacy can also be analyzed in future.

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CHAPTER 1

INTRODUCTION AND MOTIVATION

1.0 Introduction

India's economic and financial landscape went through a considerable transformation with the commencement of liberalization, privatisation and globalization. This has led to a more diverse economy, with new growth opportunities. There have been substantial technological improvements in the finance industry as well that have profoundly altered the way businesses are conducted. When it comes to managing personal finances, today's consumers are confronted with an ever-growing number of options as well as exposure to a variety of risks since the financial sector offers a wide range of products with complicated services and features. Therefore, in such a complex financial landscape, financial literacy is vital for the consumer to make informed financial decisions.

Recent years have witnessed a growing interest in research on financial literacy across all the countries (Deepak, Singh, & Kumar, 2015; Nicolini, Cude & Chatterjee, 2013; Salleh, 2015). It has acquired the interest of a wide range of groups including bankers, governments, employers, financial markets, other organizations, and undoubtedly is gaining importance in academia (Al-Tamimi & Bin Kalli, 2009a; Zuhair, Wickremasinghe, & Natoli, 2015). Its relevance has been mounting in recent years due to growing complexity in financial markets, new financial products development and the variations in economic and demographic factors. These changes necessitate individuals to take a more active role in their personal financial management (Al-Tamimi & Bin Kalli, 2009; Sevim, Temizel & Savilir, 2012).

Potrich, Vieira, and Kirch (2015) found that financial literacy aids people to gain confidence and make better and effective financial decisions. By improving the understanding of monetary issues, it allows individuals to use information related to finance well and make informed judgements about their personal finances (Bhushan & Medury, 2013). The result of good financial decisions has a considerable impact on an individual's financial security, the standard of living and personal and family relationships (Zuhair et al., 2015) Whereas, lack of financial literacy may give way to ill-informed financial decisions, and these decisions could, in turn, have unfavourable consequences for personal, national and ultimately, global finance (Organization for Economic and Cooperation and Development [OECD], 2015).

Financial literacy not only improves the lives of individuals but it assists in the economic growth and development of the nation as well, which are significantly influenced by the financial decisions made by individuals (Baluja, 2016). In the present day, economies all

across the world have increasingly considered financial literacy as a key pillar for the development of a sound financial system (Jariwala, 2013). The financial system plays a vital role in the growth and development of a nation (Bindhu, 2013).

In a developing country like India, the financial system helps in economic development through the savings-investment process, also known as capital formation (Bindhu, 2013). Capital formation is of utmost importance in the financial system. Undoubtedly, adequate capital formation is essential for fast economic growth and development. One of the main functions of financial markets is to collect the savings and invest the same for some productive works in the economy i.e., mobilization of money from savers to needy areas of the economy. It, therefore, stimulates the capital formation and thus, speeds up the process of economic growth (Jariwala, 2013).

Thus, financial literacy may be considered an important tool to boost economic development. It enables a person to make sound and effective financial decisions through understanding finances (Sinha & Gupta, 2013), which in turn improves one's personal financial position and a country's economy as a whole.

1.1 Financial Literacy-Concept

The capability of a person to make good decisions about money in its most basic form is defined as financial literacy. Although the term "financial literacy" hasn't always been used, the concept dates back to the early 1900s in the United States, when consumer education research and initiatives began (Goyal & Kumar, 2021; Remund, 2010). The importance of financial literacy was acknowledged for the first time by its founding father, John Adams, in 1787 (Goyal & Kumar, 2021).

There are several definitions of financial literacy existing in the literature. The lack of common conceptual definitions of financial literacy, according to (Zuhair et al., 2015), is due to its multi-dimensional nature, which implies the term means different things to different people. In the simpler term, it can be defined as the individual's "ability of an individual to understand finance, planning, adopt saving and wealth accumulation strategy" (Jain, 2016)**.** As stated by Joseph (2012), financial literacy basically "refers to the knowledge and understanding of financial concepts thereby resulting in the ability to make informed, confident and effective decisions regarding money" (p.2). The term "financial literacy" is defined in two ways. Financial literacy in a broader definition, according to Worthington (2006), involves an understanding of how economic situations influence household financial decisions. Whereas saving, budgeting, insurance and

investing are only a few of the essential management practices of money that are covered by a narrow definition of financial literacy (Gallery, Gallery, Brown, Furneaux, & Palm, 2011). And it is primarily relevant to personal financial security considerations.

To stress more on people's ability to make financial decisions, some international and national institutions use the term "financial capability" rather than "financial literacy." (PISA, 2021). Some of the definitions given in different studies are as follows:

- Noctor, Stoney, and Stradling. (1992) conceptualized and defined financial literacy as “the ability to make informed judgements and to take effective decisions regarding the use and management of money” (p.4).
- “Financial Literacy denotes one's understanding and knowledge of financial concepts and is crucial to effective consumer financial decision making” (Fox, Bartholomae, & Lee, 2005, p.195).
- Financial literacy according to Reddy (2006), is “providing familiarity with and understanding of financial market products, especially rewards and risks, in order to make informed choices” (p.1).
- Danes and Haberman (2007) defined “Financial literacy is the ability to interpret, communicate, compute, develop independent judgments, and take actions resulting from those processes in order to thrive in our complex financial world” (p.49).
- According to (Mandell, 2008) “Financial literacy is the ability to evaluate the new and complex financial instruments and make informed judgments in both choice of instruments and extent of use that would be in their own best long-run interests” (p.163-164).
- Financial literacy is the “ability to use knowledge and skills to manage resources effectively for a lifetime of well-being” according to (President’s Advisory Council & Literacy [PACL], 2008, p.7). It refers to a “person’s ability to understand and make use of the financial concepts” (Servon & Kaestner, 2008).
- Financial literacy has been invariably defined by (Hung, Parker, & Yoong, 2009), as “(a) a specific form of knowledge, (b) the ability or skills to apply that knowledge, (c) perceived knowledge, (d) good financial behaviour, and even (e) financial experiences” (p.5).

- Huston (2010) defined "Financial literacy has an application dimension which implies that an individual must have the ability and confidence to use his/her financial knowledge to make financial decisions" (p.307).
- As per the definition of (Gale & Levine, 2010), "Financial literacy is the ability to make informed judgments and effective decisions regarding the use and management of money and wealth" (p.2).
- Remund (2010) defined "Financial literacy is a measure of the degree to which one understands key financial concepts and possesses the ability and confidence to manage personal finance through appropriate, short-term decision-making and sound, long-range financial planning, with mindful of life events and changing economic conditions" (p.284).
- OECD (2011a) defined it as "a combination of awareness, knowledge, skill, attitude and behaviours necessary to make sound financial decisions and ultimately achieve individual financial wellbeing" (p.3).
- Financial literacy refers to the "knowledge of financial products, knowledge of financial concepts, having the methodical skills of numeracy necessary for effective financial decisions making, and being engaged in certain activates such as financial planning," (Hastings, Madrian, & Skimmyhorn, 2013, p.5).
- Lusardi and Mitchell (2014) defined it as the "ability to process economic information and make informed decisions about financial planning, wealth accumulation, debt, and pensions" (p.6).
- "Financial literacy is the knowledge, ability and skill to understand, control and use one's money wisely ultimately leading to the well–being and economic security of oneself, one's family and the economy as a whole" (Kumari & Viz, 2014, p.80).
- According to Mouna and Jarboui (2015) "Financial literacy is the ability to obtain information, analyze, manage and communicate about one's personal financial situation as it affects one's material well-being" (p.810).
- The term financial literacy according to Sinha and Gupta (2013) " refers to an individual's set of skills and knowledge that allows him to make informed and effective decisions through an understanding of finances" (p.67).
- Yakoboski, Lusardi, and Hasler (2021) defined financial literacy as the "knowledge and understanding that enable sound financial decision making and effective management of personal finances" (p.9)

A summary of studies that used common parameters to formulate the definition of financial literacy is shown in Table 1.1.

Table 1.1 Summary of Studies

Author (year)	Common Parameters
(Kim, 2001), (Hogarth, 2002), Fox et al. (2005), Reddy (2006), (Servon & Kaestner, 2008), PACL (2008), Fox and Bartholomae (2008), (Hung et al., 2009), (Remund, 2010), OCED (2011), (Joseph, 2012), Hastings et al.(2013), (Jariwala, 2013), Kumari and Viz (2014), (Bhattacharjee & Khataniar, 2016), (Yakoboski et al., 2021), (OECD, 2021)	Knowledge or understanding of financial concepts
(Noctor et al., 1992), (Vitt et al., 2000), (Danes & Haberman, 2007), (Mandell, 2008), PACL (2008), (Servon & Kaestner, 2008), (Hung et al., 2009), (Remund, 2010), (Joseph, 2012), (& Viz, 2014), (Lusardi & Mitchell, 2014), (Mouna & Jarboui, 2015), (Yakoboski et al., 2021)	Ability to communicate about financial concepts
(Vitt et al., 2000), PACL (2008), (Gale & Levine, 2010), (Remund, 2010), (Gallery et al., 2011), Kumari and Viz (2014), (Mouna & Jarboui, 2015), (Yakoboski et al., 2021)	Ability to manage personal finances
(Vitt et al., 2000), Roy Morgan Research (2003), (J. Fox et al., 2005), Reddy (2006), (Danes & Haberman, 2007), Fox and Bartholomae (2008), (Mandell, 2008), (Remund, 2010), (Gale & Levine, 2010), OECD (2011), Kumari and Viz (2014), (Joseph, 2012), (Carlin & Robinson, 2012), (Sinha & Gupta, 2013), (Hastings et al., 2013), (Jariwala, 2013), (Lusardi & Mitchell, 2014), (Jain, 2016)	Informed or appropriate financial decisions
(Remund, 2010), (Joseph, 2012), Kumari and Viz (2014)	Confidence in making financial planning and decision
(Vitt et al., 2000), PACL (2008), (Remund, 2010), Kumari and Viz (2014), (Mouna & Jarboui, 2015), (OECD, 2021),	Improve financial wellbeing and economic condition of individual and nation.

Financial literacy has become as complex as the economy, as evidenced by the various definitions listed above. Scholars and financial experts have disagreed about how to define the concept for a long time (Remund, 2010). Basically, all the definitions tried to define financial literacy as a state of understanding about financial products and services which equip the person with the required knowledge and skill for their financial security and wellbeing. It enables a person to make sound or proper judgement about financial products and services and thus helps in making effective decisions regarding the use of money. Thus, financial literacy can be understood as the ability to monitor, and effectively use financial resources to improve the wellbeing and economic security of oneself, one's family, one's business and the nation as a whole. For the present study the definition given by OECD considered which define financial literacy as "a combination

of awareness, knowledge, skill, attitude and behaviours necessary to make sound financial decisions and ultimately achieve individual financial wellbeing" (OECD 2011, p.3).

1.2 Need for Financial Literacy

The ability to manage money and financial affairs effectively is becoming increasingly crucial in the twenty-first century. Over the past decades, developed and emerging economies have become progressively aware of the importance of ensuring that their citizens are financially literate. Financial literacy is not just important for professionals in the investment and banking sectors but everyone who is responsible for managing their own financial affairs in everyday life. One of the major reasons for the rising importance of financial literacy is the growing complexities of financial products over the past decades, financial innovations, and the rising financial risks to individuals. People who lack financial literacy are ill-equipped to make sound financial decisions, which can have significant negative consequences for both personal and global financial resilience (INFE/OECD, 2009). Consequently, financial literacy is now widely regarded as a necessary life skill, and targeted financial education policies are seen as important components of economic and financial stability and development (OECD, 2021).

While many of the products available in the market offer benefits and assist in financial well-being, many are also complex and bring new challenges or risks (OECD, 2021). This necessitated a responsibility on individuals to be careful regarding their own financial security. Moreover, if people use the services of financial intermediaries/advisors, they must be aware of what they are being provided. Even new methods, such as electronic or digital payments, which have mostly overtaken face-to-face transactions, necessitate a certain level of money and finance knowledge and skills. At this backdrop financial literacy is the need of the hour as it assists one's ability to understand various financial products and services and to make the most appropriate choices.

Thus, financial literacy is the weapon on the hand of individuals to improve their own financial status and well-being by making informed decisions in creating household budgets, making savings plans, managing debt, planning for life cycle needs and dealing with unexpected emergencies without falling into unnecessary debts. In India, this kind of financial literacy is pivotal and it acts as an important factor for promoting financial inclusion and financial stability of poor households.

A person who is financially literate can make effective use of financial products and services. They will avoid falling into a debt trap and being misled by those selling financial products that are not appropriate for them. Financially literate consumers are able to survive in tough financial times because of the fact that they might have accumulated required savings, purchased insurance and diversified their investments. Financial literacy aids in improving the quality of financial services, improving the lives of people and contributing to the economic growth and development of a country. Thus, financial literacy is of great importance to individuals as well as to the nation as a whole.

1.3 Financial Literacy in India

Empirical evidence is used in financial education initiatives to determine the amount of need in the general population and specific subgroups. As a result, measuring financial literacy degrees is usually considered important by governments that are trying to implement financial education initiatives. In this regard, 'National Centre for Financial Education (NCFE) undertook a countrywide baseline survey, called the ‘Financial Literacy and Inclusion Survey’ (NCFE-FLIS) in 2013-14, at the request of the Technical Group of the Financial Stability and Development Council (FSDC) Sub-Committee on Financial Inclusion and Financial Literacy.

The 2nd NCFE-FLIS survey was conducted in the year 2018-19. The survey covers problems aimed at increasing the population's long-term financial welfare. The purpose of conducting such a study every five years is to take into account all of the actions undertaken by the government and regulatory bodies through educational programmes implemented by NCFE and various other stakeholders, as well as to analyse their growth and effectiveness.

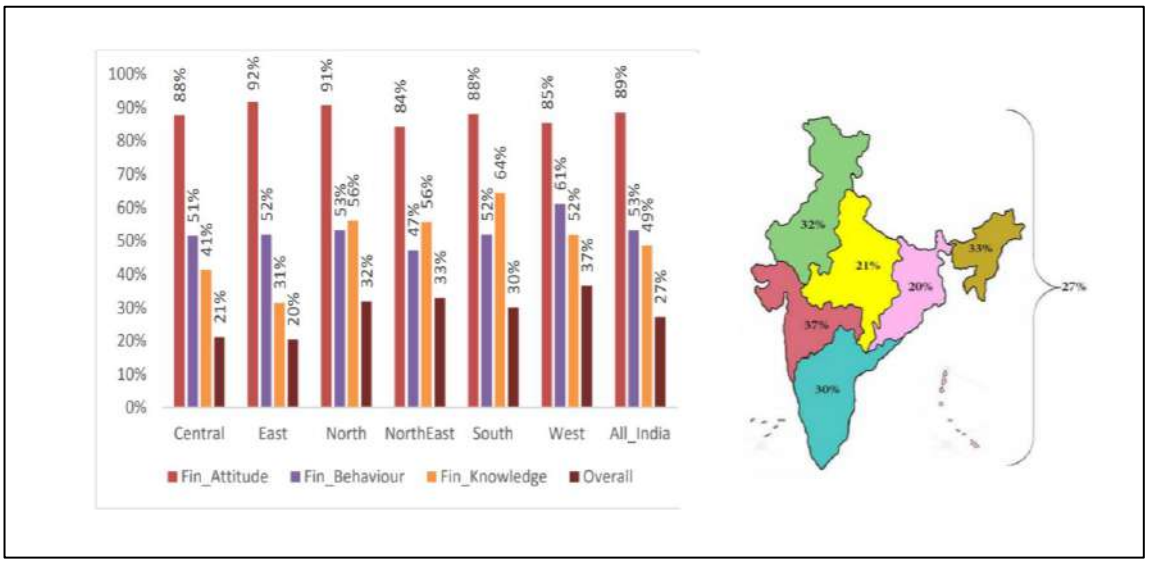
The primary goal of the survey was to assess the condition of financial literacy and financial inclusion in the country. It also aims to determine the extent to which the initiatives intended to improve the country's financial literacy level have been properly implemented. This contributes significantly to the vision of NCFE i.e., "financially aware and empowered India."

1.3.1 Zone wise Status of Financial Literacy:

The West Zone (37%) was the most financially literate, followed by the Northeast (33%), North Zone (32%), South Zone (30%), Centre Zone (21%), and East Zone (20%),

in that order. The financial literacy levels in the West, Northeast, North, and South zones were higher than the national average (27 %).

Fig: 1.1 Financial Literacy Status of India

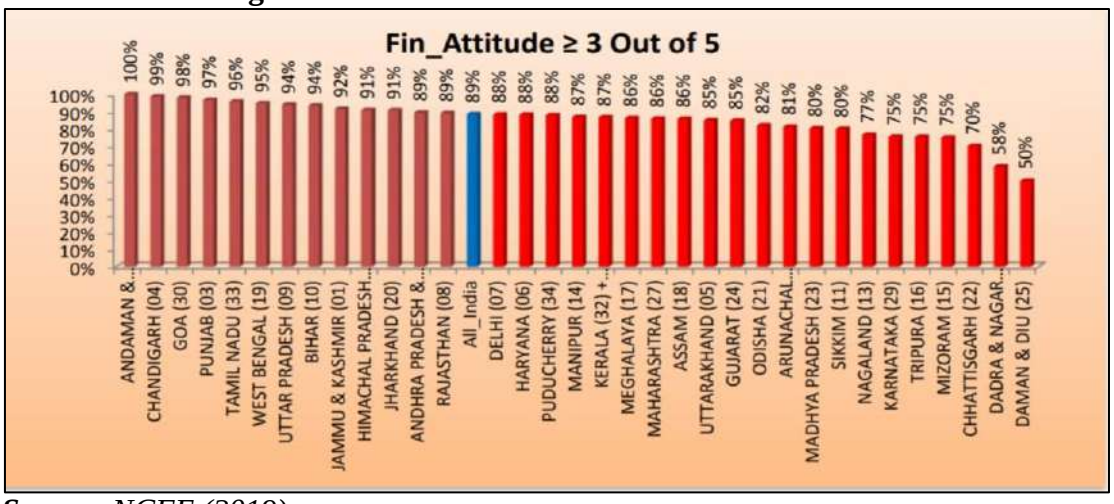


Source: *NCFE (2019)*

1.3.2 State-wise Status of Financial Literacy

According to the state-wise distribution of financial attitude (shown in Figure 1.2), 89 % of respondents from all states/UTs have a positive financial attitude (scored ≥ 3 out of 5). There are 21 states/UTs, as depicted by red bars, that lag behind the national average of 89% in terms of financial attitude. Andaman and Nicobar Islands (100%), Chandigarh (99%), and Goa are the top three states/UTs in terms of financial attitude (98%). Daman & Diu (50 %), Dadra & Nagar Haveli (58%), and Chhattisgarh have the lowest financial attitudes (70%). Arunachal Pradesh's score is 81%, which is lower than the national average.

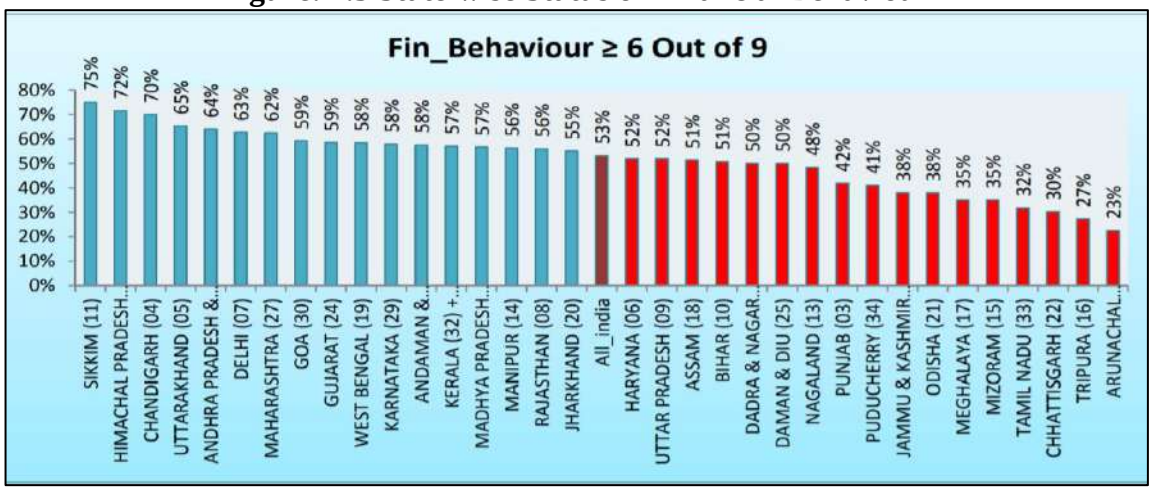
Fig: 1.2 State-wise Status of Financial Attitude



Source: *NCFE (2019)*

In terms of financial behaviour, as shown in the figure 1.3, 53% of total respondents scored more than or equal to 6 out of 9 in FB. 17 states/UTs, as depicted by red bars, lag behind the national average of 53% in financial behaviour. Chhattisgarh, Tripura, and Arunachal Pradesh have the lowest levels of financial behaviour, with 30%, 27%, and 23% financial behaviour, respectively. The top three states/UTs in terms of financial behaviour are Sikkim (75%), Himachal Pradesh (72%), and Chandigarh (70%).

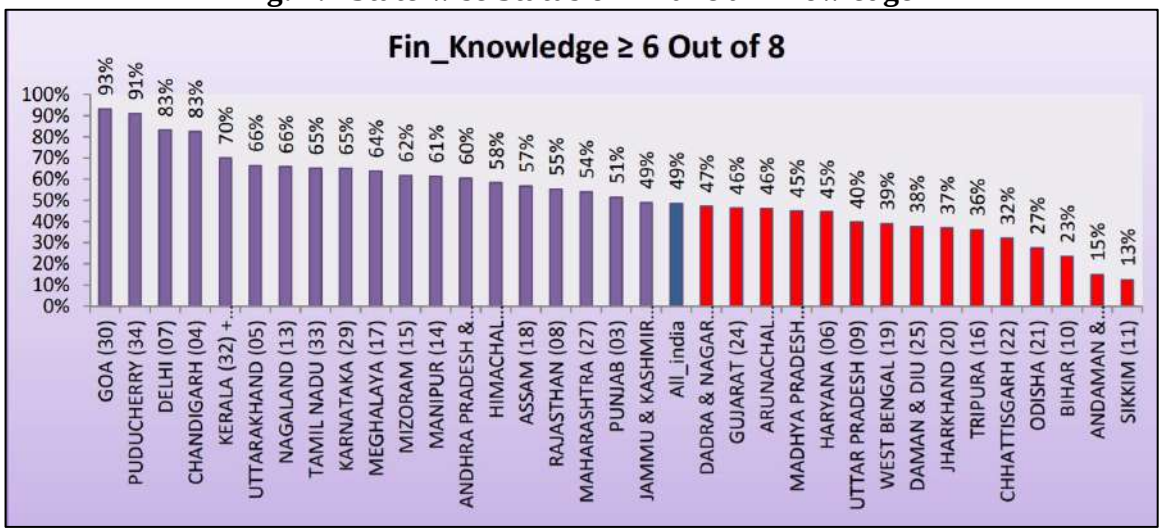
Figure: 1.3 State-wise Status of Financial Behaviour



Source: *NCFE (2019)*

According to figure 1.4, 49% of respondents from all states/UTs scored more than 6 out of 8 on financial knowledge. There are 15 states/UTs, depicted as red bars lag behind the national average of 49% in financial knowledge. Goa (93%), Puducherry (91%), and Delhi are the top three states/UTs in financial knowledge (83%). Arunachal Pradesh is rated as below average. The state's overall financial knowledge is 46%.

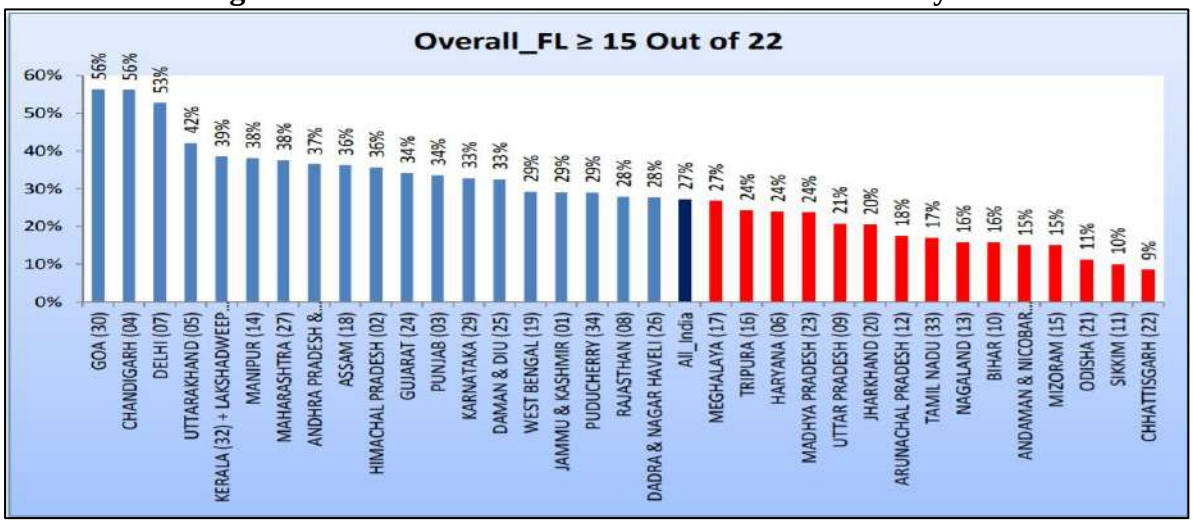
Fig: 1.4 State-wise Status of Financial Knowledge



Source: *NCFE (2019)*

In Figure 1.5, it is reflected that overall financial literacy in India is measured at 27%. It can be seen that out of the total 35 States/UTs, approximately 19 States/UTs (54%) have financial literacy levels that are higher than the national average. Goa, Chandigarh, and Delhi are the top three states with financial literacy rates above 50%. Odisha, Sikkim, and Chhattisgarh have the lowest levels of financial literacy, with 11%, 10%, and 9%, respectively. Arunachal Pradesh is rated as below average. The state's overall financial literacy rate is 18%.

Fig: 1.5 State-wise Status of Overall Financial Literacy



Source: *NCFE (2019)*

1.3.3 Socio-Economic Distribution of Financial Literacy

According to the socio-economic distribution of Financial Literacy, 33% of urban and 24% of rural respondents are financially literate. Male respondents are more financially literate than female respondents, with 29% being more financially literate. The 18-29 age group has the highest level of financial literacy in the age group. Among all classes, the general class has the highest level of financial literacy. Financial literacy was lower among those with less education and income. Government employees were found to be the most financially literate, followed by private employees, retirees, self-employed people, and students.

Given the importance of financial literacy in India, several stakeholders began promoting it and have launched a number of programs to encourage financial education. The following are some of the activities that have been implemented to improve financial literacy in the country over the years.

Table 1.2 Initiatives Undertaken to Promote Financial Literacy

Sl.No.	Organisations	Initiatives
1.	Reserve bank of India (RBI)	a) Launched financial education site. b) Essay / RBI Quiz competitions c) Schoolchildren's visit to RBI d) RBI young scholars Award scheme e) Outreach visits f) Skits, films, roadshows g) Townhall meetings h) Financial literacy centres (FLCs) i) Monetary museum by RBI j) Awareness programmes on governments sponsored self-employed schemes k) Mass Media campaign l) Rural Self Employment Training Institutes m) Organise financial education conferences n) National strategy on financial education o) Financial literacy guide p) Embed financial concepts in the curriculum q) Organises Financial literacy week every year. r) Recommended adoption of a '5 C' approach– Content, Capacity, Community, Communication and Collaboration. s) Centre for Financial Literacy (CFL) project - An innovative way to impart financial education through a community approach.
2.	Commercial banks	a) Financial literacy counselling centre b) Business correspondents c) Customers service points d) Rural self-employment training institute on financial literacy e) Awareness programmes on various Government schemes
3.	Stock Exchange Board of India (SEBI)	a) SEBI certified Resource persons organise workshops. b) Conduct financial awareness test (National Financial Literacy Assessment Test) for school students from VII to X. c) Investor education programs. d) Regional seminars through various stakeholders. e) Launched a website for investor education. f) 'Visit SEBI' programme' for school and college students. g) SEBI helpline in different languages (Toll-free). h) "SEBI Complaints Redressal System" (SCORES). i) Awareness campaign via mass media. j) Launched Securities Market Trainers (SMARTs) to boost investor education.
4.	Insurance Regulatory and Development Authority	a) Awareness Programs on television and radio explain policyholders' rights and responsibilities, dispute resolution channels, and so on. b) Metro rail campaigns, awareness campaigns, quizzes, seminars etc.

	(IRDA)	c) Pan India campaigns via mass media in regional languages. d) Publications of comic book series and 'policyholder Handbooks' on insurance. e) Website for consumer education in insurance. f) Launched Integrated Grievance Management System (IGMS).
5.	Pension fund regulatory and development authority (PFRDA)	a) Launched "Pension Sanchay" website. b) Subscriber awareness programs c) Dedicated training agency for capacity building and subscriber awareness. d) Organises Annuity Literacy Program e) On its website, it has compiled a list of frequently asked questions (FAQ) on pensions. f) Associates with Non-Government Organizations to reach the disadvantaged community to provide pension services. g) Awareness via print and electronic medias
8.	National Board of Agricultural and Rural Development (NABARD)	a) Through financial literacy centres (FLCs), organises financial and digital literacy camps. b) Support bank correspondents as well as customers service points c) Conducts capacity building program for the employees of the Regional Rural Banks (RRB), Rural Cooperative Banks (RCBs) and commercial banks to ensure successful financial literacy delivery. d) Launched FLAP- Financial Literacy and Awareness Programme to create awareness among the rural people. e) Training and reimbursement of Examination fee of BC/BF
9.	National Centre for Education (NCFE)	a) Money Smart School Program (MSSP) b) NCFE–National Financial Literacy Assessment Test (NFLAT) c) Financial Education Training Programme (FETP) d) FACT (Financial Awareness and Consumer Training) e) Financial Education Program for Adults (FEPA)

1.4 An Outline of Arunachal Pradesh

The North-Eastern Region of India is landlocked between foreign countries of China, Myanmar, Nepal, Bangladesh and Bhutan. The region comprises eight states namely – Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Sikkim. According to the census 2011, North-East India has a population of 45 million and covers 7.9% of the total area of the country (Bhuyan, 2020). People from various ethnic and cultural groups live in this area. The topography is a mix of hills and plains. Excluding Assam, Tripura and Manipur rest of the states are hilly in nature and are

tribal-dominated (Srivastav & Syngkon, 2008). While Arunachal Pradesh, Meghalaya, Mizoram, Nagaland, and Sikkim are mostly hills, Assam is mostly plain. Both plains and hilly terrain may be found in Manipur and Tripura.

The current study is being conducted in Arunachal Pradesh, which is the largest state in India's North-Eastern region in terms of land area. It is popularly known as the "Land of Rising Sun" (arunachalpradesh.gov.in, n.d.) and also as the "Land of the Dawn-lit Mountains" (Department of Planning, 2012). One-time North Eastern Frontier Agency (NEFA), became the union territory of Arunachal Pradesh on 20 Jan 1972 and was later elevated to full-fledged state on 20 February 1987. It covers a total area of 83,743 sq km of mountainous terrain and has a long international border with Bhutan to the west (160 km), China to the north and north-east (1,080 km) and Myanmar to the east (440 km).

The state is home to around 20 major tribes and a considerable number of sub-tribes. Most groups, though, are ethically similar, having developed from a common stock. However, tribes' geographical isolation has resulted in certain distinguishing qualities in language, dress, and rituals. Nature has also endowed the inhabitants with a profound sense of beauty, which is shown in their songs, dances, crafts, and festivals (Directorate of Economics and Statistics, 2015). The state is divided into 25 districts, with a total population of 13,83,727 persons, with 7,13,912 men and 6,69,815 women (census, 2011). Overall, 65.4% of people are literate, with males accounting for 72.6% and females accounting for 57.70 %. The scheduled tribes make up 64.2% of the overall population.

In terms of financial institutions, Arunachal Pradesh did not have any formal banks until 1969. SBI founded the state's first commercial bank in Pasighat, the district headquarters of East Siang district, in 1970. The banking sector did not flourish as expected, but commercial banks later took the initiative and established bank branches in every area of the state. As of 31st December 2017, there were total numbers of 123 commercial banks, 28 regional rural banks and 37 cooperative banks operating in all the districts (State Bank of India, 2017).

1.5 Thesis Outline

- Chapter 1 - The first chapter covers a general overview of financial literacy, including its definition, necessity, and an outline of the research area (Arunachal Pradesh) and thesis.

- Chapter 2 - The second chapter presents a review of previous literature on financial literacy assessment and its determinants, as well as the link between financial literacy and behaviour. A review of studies conducted at the worldwide, national and regional levels is also presented.
- Chapter 3 - The methodology of the study is presented in this chapter. It discusses the study's objectives, scope, and limits, as well as the data collection methods, sampling techniques, and data analysis methods employed.
- Chapter 4 - The fourth chapter presents a thorough analysis of the data as well as a discussion of the findings in connection to the first objective. The financial literacy level of the respondents is assessed in this chapter using the OECD's suggested three dimensions of financial knowledge, financial behaviour and financial attitude. A comparison of urban and rural areas has also been made.
- Chapter 5 - The fifth chapter examines the data and discusses the results in relation to objective two. This chapter also discusses the relationship between various socioeconomic and demographic factors and people's financial literacy.
- Chapter 6 - The sixth chapter presents a detailed discussion on the analysis of data and a discussion on the third objective. This chapter analyzes the impact of financial literacy on the saving and investment behaviour of respondents. A comparison between urban and rural areas has also been made.
- Chapter 7 - The seventh chapter consists of a summary of findings, suggestions, and potential areas for future research.

CHAPTER 2

REVIEW OF LITERATURE

2.0 Introduction

The chapter displays a thorough review of previous studies on financial literacy both globally and in India. The findings of prior studies that attempted to assess people's financial literacy, identify its determinants, and studies related to the link between an individual's financial literacy and various financial behaviours are summarised in this chapter. In the following section of the chapter, a detailed summary of these studies is given, as well as a description of the research gap for this study. The study divides the literature into three sections, as shown below.

1. Assessment of financial literacy-Global scenario.
2. Assessment of financial literacy-Indian scenario.
3. Determinants of financial literacy-Global scenario.
4. Determinants of financial literacy-Indian scenario.
5. Financial literacy and financial behaviour-Global scenario.
6. Financial literacy and financial behaviour-Indian scenario.

2.1 Assessment of Financial Literacy-Global Scenario

Beal and Delpachitra (2003) in their study "Financial Literacy among Australian university students" tried to assess the Australian population's financial literacy. They came to the conclusion that financial literacy is low, which is undoubted as a consequence of deficiency of financial education at an early age in schools.

Lusardi (2008) in her research paper "Household saving behaviour: the role of financial literacy, information, and financial education programs" concluded that financial illiteracy was pervasive in the United States, with various segments of society, like those with a low level of education, women, Hispanics and African-Americans, experiencing it more acutely.

Al-Tamimi and Bin Kalli (2009) study looked at investors in the UAE who invest in locally-based financial markets for their financial literacy "Financial literacy and investment decisions of UAE individuals." They discovered that financial literacy was much below the required level. They knew more about the benefits of diversification, but they didn't know much about the different types of UAE financial markets indexes.

Mitchell, Lusardi, and Curto (2009) in a research paper titled "Financial literacy among the young: evidence and implications for consumer policy" attempted to examine the young people's financial literacy in the United States, based on data from the 2007-2008

National Longitudinal Survey of Youth. The research questions they were looking for answers to were about young people's readiness to make wise financial decisions, financial literacy determinants, and policy efforts needed to increase young people's financial literacy. They discovered that young people's financial literacy was low and that it was influenced by socio-demographic variables along with the financial condition and sophistication of their families. They also found a considerable difference between genders when it comes to financial literacy, with women having a lower level. The findings were consistent with findings from around the world indicating, despite significant attempts to enhance financial literacy among the young, it remains insufficient.

In his study "Financial literacy and youth entrepreneurship in South Africa" (Oseifuah, 2010) tried to assess financial literacy along with its effect on youth entrepreneurship in South Africa. Financial literacy appeared to be high than average, according to the study and contributes implicitly to the entrepreneurship skills of young entrepreneurs in the Vhembe district.

Lusardi et al. (2010) in the study "Financial literacy among the young" investigated how well-informed young adults are about finances. According to the study financial literacy was low among young individuals, with only about a third of them having a basic comprehension of inflation, interest rates and risk diversification. It was also revealed that financial literacy was substantially related to sociodemographic factors and financial complexity in the family.

Dvorak and Hanley (2010) devised and conducted a financial literacy test tailored to a retirement savings plan in their paper "Financial literacy and the design of retirement plans." Participants have a decent comprehension of the plan's key principles, but they are unable to distinguish between different options of investment, according to the researchers. Women, low-income employees, and those with a poor education level have the lowest levels of knowledge.

Van Rooij, Lusardi, and Alessie (2011) conducted a study titled "Financial literacy and stock market participation." The goal of this study was to see if respondents were financially literate and if that knowledge influenced their financial decisions. The majority of respondents have a basic comprehension of financial concepts including compound interest, inflation, and money's temporal value. Nevertheless, a couple of people understand anything more than these fundamental concepts; for example, the majority of people are unaware of the nuances between stocks and bonds, the link

between prices of bonds and rates of interest, or the fundamentals of diversification of risk.

Gallery et al. (2011) attempted to determine how members of superannuation funds' financial literacy differ throughout general financial and particular investment issues in their study “Financial literacy and pension investment decisions.” They also tried to figure out if there was a relationship between respondents' level of financial literacy and their demographic characteristics. According to the findings, respondents possess good basic financial literacy, although they have large gaps in their knowledge of more sophisticated investment matters. Three financial literacy criteria were shown to be more difficult for women, young ones, and those with less education, according to the study.

Fornero and Monticone (2011) examined the degree and distribution of financial literacy in the Italian population in their study “Financial literacy and pension plan participation in Italy.” They concluded that the majority of people are unaware of fundamental concepts of finance and are more acquainted with inflation and stocks than they are with compound interest. Women and those with a lower education score the lowest on financial literacy assessments, similar to findings in other nations.

Tang, Deng, Teng, and Chen, (2012) examined the effect of financial literacy on teachers' financial education in their study “Impact of financial literacy of elementary school teachers on financial literacy education.” They found that teachers had a medium to a high level of financial literacy and they got high scores on investment, insurance, and savings questions.

Shambare and Rugimbana (2012) in their study “Financial literacy among the educated: an exploratory study of the selected university in South Africa” examined the financial literacy level of a section that could be classified as being educated among the South Africa population. They concluded that this group has a high level of basic financial literacy. The results also indicate that it is crucial to remember that educated people aren't always literate. As a result, most of the individuals, who are overrepresented among the financially blacklisted South Africans as black diamonds, may require proper training.

Ramasawmy, Thapermall, Dowlut, and Ramen (2013) conducted research under the title "A study of the level of financial literacy awareness among management undergraduates" with the primary goal of determining the financial literacy level at the University of Mauritius across management students. They discovered that the majority of students have a medium degree of financial literacy, savings, and borrowing skills.

Gender, age, language, income level, and race had no effect on financial literacy, according to the research.

Xiao, Ahn, Serido, and Shim (2014) attempted to investigate the influence of early financial literacy on financial behaviour in their study "Earlier financial literacy and later financial behaviour of college students." Objective, as well as subjective knowledge, were used to measure financial literacy, with credit behaviour being regarded as financial behaviour in this study. There were differences between subjective and objective prior knowledge in the relationship between earlier knowledge and later financial behaviour. Subjective knowledge had a greater effect than objective knowledge on both composite and individual measures of risky borrowing and paying behaviour.

Salleh (2015) in their study "A comparison on financial literacy between welfare recipients and non-welfare recipients in Brunei." They attempted to distinguish between both the welfare and non-welfare recipients' financial literacy levels and discovered the existence of considerable variations in financial literacy of welfare and non-welfare recipients. The study also emphasizes the necessity of improving financial literacy, particularly among low-earning households and those who are poor, as the results indicate that they have lesser financial literacy than non-welfare recipients.

In their study "Separated by bars or dollar signs? A comparative examination of the financial literacy of those incarcerated and the general population," (Glidden & Brown, 2017) the financial literacy level of the prisoners in Arkansas correctional institutions were investigated using a comparative analysis of those incarcerated and the general community. They discovered a significant gap in planning and financial knowledge between the general public and those in prison. The same difference was found between white and non-white respondents in the incarcerated sample.

In their study "Young adults and their finances: An international comparative study on applied financial literacy," Oehler, Horn, Wendt, Reisch, and Walker (2018) aimed at examining the financial literacy of business students in four countries i.e., Canada, Denmark, Germany and Iceland as described in their financial product's portfolio rather than in mere gathering of information. They discovered that the majority of respondents in each of the four nations have strong financial literacy and an accurate assessment of return and risk, as well as their influence on financial health.

Ergün (2018) conducted a study titled "Financial literacy among university students: A study in eight European countries," in which he attempted to find out the university students' level of financial literacy as well as the link between students' demographic

features and financial knowledge. He discovered that students had a medium degree of financial literacy when it came to personal finance. Male students, those who took business majors, those who are pursuing PhDs, those who stay in rental houses, whose parents' earnings is high, who get peers' financial advice, who have undergone courses related to financial matters before, and those who stay informed about financial matters made up the majority of students who were more knowledgeable on personal finance.

Ana and Wan Ahmad (2020) aimed to analyse the financial literacy level of Muslim undergraduates as described by socio-cultural determinants in their work "Financial literacy among Malaysian Muslim undergraduates." In addition, as a part of measuring the extent of financial literacy among the students, it investigates some more Islamic measurements. They suggested that financial literacy scores are influenced by students' exposure to financial education and practices. Students taking Muamalat-related courses scored higher on the tests related to financial literacy. Also, post-interview findings show that a student's social environment and interactions are equally significant in improving their financial literacy.

According to the research listed above, many studies have used various methods to measure financial literacy all around the world. It has been noted that in most nations, financial literacy is below the required level (poor financial literacy), and this is caused by a number of factors.

2.2 Assessment of Financial Literacy- Indian Scenario

Joseph (2012) aimed to measure and analyse the financial literacy level of economically marginalized people in two districts of Kerala, and also to check the association between overall financial literacy and key demographic profiles, in his study "Financial literacy of economically marginalized people of Kerala." Saving, spending, borrowing and investing literacy were the four tiers used to assess financial literacy. They discovered that overall financial literacy was very good, with only a small percentage of the sample being financially excluded. Borrowing literacy was lower than saving, spending, and investing literacy among the four tiers of financial literacy. The findings also revealed that those underprivileged persons with a substantially greater income and higher educational background, and where financial decisions are made jointly by parents, are the most financially literate.

Arora and Marwaha (2013) explored stock market investors' financial literacy level in Punjab in their research papers "Financial literacy level and awareness regarding stock

market: an empirical study of individual stock investors of Punjab." The Individual investors of Punjab are well versed with the advantages of diversification, share closing prices, current market indices (NSE/BSE), return, and inflation but only a slight and minimal knowledge about the stock split, interest rates on debentures/bonds, bonds and settlement period.

In their study "Financial literacy and its determinants," (Bhushan & Medury, 2013) estimated the financial literacy level of salaried individuals based on several socio-economic and demographic characteristics. The study discovered the low overall financial literacy and is influenced by kind of employment, income, gender, education, and place of employment, but not by age or geographic region.

Jariwala (2013) had carried out a study titled “To study the level of financial literacy and its impact on investment decision- an in-depth analysis of investors in Gujarat state.” One of the study's main goals was to investigate the financial literacy level of Gujarati investors and also to study the association between socioeconomic and demographic characteristics and financial literacy. Most of the investors are less financially literate in various areas of basic and advanced financial literacy, and some do not understand crucial ideas at all. Financial literacy is lower among females and those with lower incomes. The study also found that individuals with more years of investment experience, as well as those who shop around the most/make the most queries while investing, have a greater degree of financial literacy than others.

In her report "A study of financial inclusion and financial literacy among tribal people in Wayanad district, Kerala," Krishnan (2014) examined the tribal people's level of awareness of various financial terms and evaluated their ability to select appropriate financial products or services. Tribal people have a poor understanding of financial matters. There were statistically significant disparities in financial literacy among tribal people. She also discovered that tribal populations are unaware of various financial services and products, despite the fact that the majority of them avail banking services. Pension funds, Mutual funds and other services of financial markets are not preferred by the respondents.

Bhusan (2014) attempted to examine the level of financial literacy of salaried people and figure out the link between socio-demographic characteristics and financial literacy in his work "An empirical study of financial and tax literacy of salaried individuals." His study suggests the overall low financial literacy among the respondents, with the majority of

females, those with lesser education, those who are salaried, and those who work in rural areas having low financial literacy.

Gloria (2014) examined the level of financial literacy among low-income families and tried to measure respondents' knowledge about various financial inclusion programs in her work titled "Assessment of financial literacy for financial inclusion among low-income households." As per the findings, most of the respondents in urban areas had a medium knowledge of basic financial literacy, while those in rural areas had a mix of high and medium knowledge. In terms of financial inclusion programs, respondents had a low to moderate awareness of the government of India's No frill account initiative, Kisan credit card scheme, General purpose credit card, and self-help group.

Tridevi and Trivedi (2014) tried to analyse the status of financial literacy utilizing three OECD components: financial attitude, financial knowledge, and financial behaviour in their research paper "Financial literacy an essential prerequisite for financial inclusion." In terms of financial awareness, the survey discovered that male employees working in urban areas and respondents with higher income performed better. However, the respondent's marital status had no bearing on his or her financial knowledge. Employed and educated respondents exhibited responsible financial behaviour, which was influenced by marital status, income, and gender. Only young people and married persons were found to have a better financial attitude than others; the remaining factors had no effect on the respondents' financial attitude.

Jain (2016) examined the level of financial literacy among older people from different socioeconomic groups in her paper "Financial literacy and wellbeing of older population: A Study in Urban Jaipur." The study used the concepts of basic, sophisticated, and composite financial literacy to assess its relationship with several dimensions of ageing in people aged 50 and up. The study found that the elderly performed well in basic financial literacy, such as numeracy, bank functions, and types of bank accounts, but not so well in sophisticated financial literacy, such as stock and bond investing. With each of the financial literacy indices, the study discovered a significant link between employment status and economic position. The elderly's age, caste, and living arrangement all showed a strong link to sophisticated financial literacy, while caste was linked to composite financial literacy.

Akhter (2016) tried to estimate young people’s degree of financial literacy in his study, "Financial literacy, perceived risk attitudes, and investment intentions among youth in Jammu and Kashmir." According to the findings, respondents have less knowledge about

advanced financial literacy than basic financial literacy. This study has significant implications, according to the researcher, because youngsters are less aware of ideas that are more crucial to understand when it comes to investments and the benefits or otherwise linked with them. The report went on to say that a lack of awareness of these basic concepts makes young people more hesitant to invest, limiting them to simply security and saving, which has a substantial impact on the country's financial system's overall development.

Suganya (2017) attempted to examine the financial literacy level of Self-Help Group (SHG) women members in her study named "Study of financial literacy in relation to economic empowerment among self-help group women members in Virudhunagar district." The researchers also wanted to examine the existence of a link between economic empowerment and financial literacy among the participants. The survey found that respondents' financial literacy and economic empowerment were both high, with a strong link between the two. The survey stated that financial literacy lays the road for economic empowerment among the respondents by assisting them in making wise decisions on finance, managing risk, and understanding their rights and duties as consumers. It was also discovered that several factors such as occupation, education, group's age, year of membership, and frequency of loans obtained influenced members' financial literacy.

In his study "A study of financial literacy and its impact on investing behaviour," (Kamboj, 2017) attempted to determine the respondents' financial literacy. Only one-third of the participants in the research had a better level of financial literacy. Despite the majority of respondents having adequate basic financial knowledge and financial behaviour, 57 % of respondents had a negative financial attitude. Low income, unstable income, and younger age were all connected to poorer levels of financial literacy, according to the study.

Garg and Singh (2018) attempted to analyze the youth's level of financial literacy in their theoretical study "Financial literacy among youth" based on worldwide prior studies. They came to the conclusion that financial literacy is low in most parts of the globe, which is a matter of concern. The survey also discovered that income, age, gender, educational achievement, and marital status all had an effect on the financial literacy of young people. In addition, researchers discovered a link between three components of financial literacy i.e., financial attitude, financial knowledge, and financial behaviour.

Chettri (2019) carried out a study titled “Financial literacy in Darjeeling district: initiatives and impact,” where he tried to assess people’s degree of financial literacy residing in Darjeeling. The study also compared the level of financial literacy of respondents residing in hill regions with the plain region. The study found that due to differences in the socio-economic characteristics such as income level, family status, marital status, and education the financial literacy level varied in Darjeeling. Good financial literacy was found among the respondents residing in plain areas than those of hilly areas. Financial and non-financial institutions were located in close proximity to clients in many areas of the plains, and as a result, they are more inclined to use various financial instruments than in the hilly region.

Various studies on financial literacy have been undertaken in various parts of the country, according to the literature. The research was conducted on a variety of target groups, including marginalised individuals, investors, salaried individuals, tribal people, low-income households, the elderly, youth, self-help groups, and so on. Most research reveals that financial literacy is either poor or below the required level. In order to improve individuals' financial well-being, several recommendations for enhancing financial literacy have been made in various research.

2.3 Determinant of Financial Literacy- Global Scenario

De Clercq and Venter (2009) evaluated the effect of gender, age, ethnic background, and income level on the UG chartered accountant students’ financial literacy in a paper titled "Factors influencing a prospective chartered accountant's level of financial literacy: an exploratory study." The findings revealed that gender is one element that influences financial literacy. Like gender, age was identified as a factor that influences financial literacy, and those aged 30-39 are the most financially literate. Contrary to that, the students of younger age were the least financially literate, which could be evident by the fact that they had minimal personal money experience due to the fact that most of them have only recently graduated from high school. Both home language and race were mentioned as elements that influence a student's degree of financial literacy when it came to the ethnic background of the students.

Lusardi et al. (2009) analysed the data from the ‘National Longitudinal Survey of Youth’ in 2007-08 to explore financial literacy of young people in the United States in their research paper “Financial literacy among the young: evidence and implications for consumer policy.” The research questions they were looking for answers to were about

young people's readiness to make financial decisions wisely, financial literacy determinants, and policy efforts needed to increase young people's financial literacy. The financial literacy of young people was discovered to be poor. This conclusion is consistent with findings from other research indicating, despite significant efforts to enhance financial literacy among the young, it remains insufficient. They discovered that socio-demographic characteristics, as well as the financial condition and sophistication of one's family, had a substantial impact on financial literacy. They discovered a considerable difference between women and men in the area of financial literacy, with women having a lower degree. According to the study, just 27% of youngsters understood inflation, diversification of risk, and could calculate the simple interest rate.

Lusardi et al. (2010) investigated how financially educated young individuals are in their study "Financial literacy among the young." Financial literacy is inadequate, with only roughly a third of young adults understanding the fundamentals of inflation, risk diversification, and interest rates. It was also found that financial literacy is substantially associated with family financial sophistication and socioeconomic status. Furthermore, women were found to have the lowest financial literacy. Even after accounting for a variety of demographic, family history, and peer characteristics, differences between men and women persisted. They also discovered that cognitive ability was a major predictor of financial literacy in young people, with those who had better cognitive ability being more likely to have higher financial knowledge.

The study "Financial literacy of young adults: The importance of parental socialization" was carried out by Jorgensen and Savla (2010). The goal of this paper was to study the parental effect on young adults' financial knowledge, attitude, and behaviour (financial literacy) to the test. To see how much a young adult's financial views moderated their financial knowledge and their perception of their parents' influence on their financial behaviour. According to the result direct and moderately significant impact of perceived parental influence on the financial attitude of the young was found. It had no impact on financial knowledge and had no direct and less significant effect on financial behaviour, which was mediated by financial attitude.

Solheim and Yang (2010) observed various dimensions of finance management in first- and second-generation Hmong immigrant families in order to understand the effects on financial ideals and practices. They also sought to discover whether acculturation leads to generational disparities in financial literacy in their study "Understanding generation difference in financial literacy in Hmong immigrant families." Traditional Hmong values

and behaviours such as sharing resources, living modestly, saving on a regular basis, and avoiding debt were prioritized by Hmong parents. Young adult populations preferred spending to save, utilize credit for meeting wants, and emphasizing American ideals of independence, individuality, and self-satisfaction. Children's attitudes and behaviours toward spending and saving, on the other hand, showed clear generational differences.

“Childhood consumer experience and financial literacy of college students in Malaysia,” according to Sabri, MacDonald, Hira, and Masud (2010). The goal of this study was to see how family and personal history, academic competence, and consumer experiences during childhood influenced financial literacy among Malaysian students studying in colleges. A total of 2,519 students from both private and public Malaysian colleges were included in the study. Using 25 questions on financial knowledge, a test was conducted to assess financial literacy. On average, students could properly answer less than half of the questions only. As a child, the consumer experience of discussing family finances with parents has a substantial positive effect on financial literacy.

In their study "Financial literacy and pension plan participation in Italy," Fornero and Monticone (2011) looked at the degree and distribution of financial literacy in the Italian people, as well as its factors. The research found that most people are unfamiliar with basic financial concepts, with inflation and stocks being more familiar than compound interest. Women and individuals with a lesser level of education had the lowest financial literacy, which is consistent with findings in other countries.

Gallery et al. (2011) examined superannuation fund members' financial literacy in general financial and specialised investment concerns in their study “Financial Literacy and pension investment decisions.” Furthermore, they tried to ascertain which demographic variables are associated with participants’ varying degrees of financial literacy. The results of this research suggested that respondents normally have strong financial literacy at the basic level, but have inadequate knowledge related to complex investment topics, as observed by the researchers. The result also revealed that financial literacy scores of younger members, women, and those with a low educational profile tend to be lesser.

Zuhair et al. (2015) did a study named "Migrants and self-reported financial literacy - Insights from a case study of newly arrived CALD migrants." The study observed that the migrants are interested in learning more about financial decision-making. It also found that basic financial services need to be improved and that educational levels have an impact on self-reported financial literacy levels.

Thara and Ali (2014) in their work "Determinants of financial literacy levels among employees of Kenya ports Authority in Kenya" attempted to discover the factors that affect the financial literacy levels of employees. According to the study's findings, the financial literacy of employees is low in general. In contrast to occupation status and the type and personal income levels, financial literacy is affected by gender, age, educational attainment and other wealth factors, as well as the sources of information and financial guidance.

Lachance (2014) looked at "Financial literacy and neighbourhood effects" to see how neighbourhood features affect financial literacy. The investigation revealed that a Zip code's education level has a considerable impact on financial literacy. The regression studies demonstrate that people who live in better-educated neighbourhoods utilize more financial products, save more for the future, and engage in less expensive credit activities.

Glidden and Brown (2017) in their study titled "Separated by bars or dollar signs? A comparative examination of the financial literacy of those incarcerated and the general population" aimed to find out how financially literate convicts in Arkansas prisons are. They discovered that there is a significant gap in financial planning and knowledge between the general public and those who work in prisons. Among incarcerated sample again a similar gap between white and non-white respondents was found. Those who are young, minorities, and those with a low profile of education are supposed to have poor financial knowledge as well as to use predatory lenders and make poor financial plans. Due to low financial literacy, poor planning of finance and predatory lending, asset accumulation is often hindered, which increases the likelihood of incarceration or recidivism.

Murendo and Mutsonziwa (2017) carried out a study titled "Financial literacy and savings decisions by adult financial consumers in Zimbabwe," to find out the factors which influence adults' financial literacy in Zimbabwe. The findings indicate that females are less financially savvy than males. Residents in rural areas are shown to be less financially literate than those in urban areas. Financial literacy is positively influenced by education and access to knowledge via television ownership. It is also favourably impacted by the availability of financial products such as mobile money and savings.

A recent study namely "Financial literacy among university students: A study in eight European countries," Ergün (2018) attempted to determine the financial literacy of

students at the university level in Europe. It was also determined whether there was a link between students' financial awareness and their demographic characteristics. According to this research, financial literacy was observed to be average amongst students when it came to personal finance. Personal finance knowledge was most prevalent among students who lived in rental housing, whose parents earned a lot of money, received financial advice from friends, and had taken financial classes in the past. Personal finance knowledge was also higher among PhD students than their peers. The study's findings suggest more financial courses in university so as to add more students to manage their finances better and also to advance their financial health. The study also suggested that technology and environmental factors on financial literacy be taken into account.

Santini, Ladeira, Mette, and Ponchio (2019) in their study "The antecedents and consequences of financial literacy: a meta-analysis," used meta-analytic techniques to find out the determinants and outcomes of financial literacy. Education, household income, gender, investment, financial knowledge, behaviour and attitude were identified to be the most important elements in determining financial literacy in their research. People who are financially literate are less likely to incur unnecessary credit and checking fees, have a better credit rating and are more willing to take financial risks.

As part of their research on "Financial literacy among Malaysian Muslim undergraduates," Ana and Wan Ahmad (2020) examined how sociocultural variables explain financial literacy levels of Muslim undergraduates in Malaysia. Their findings imply that students' exposure to financial education and practices has a positive impact on their financial literacy scores. Students who studied Muamalat-related courses indicated a higher level of financial literacy. Furthermore, post-interview data reveals that the students' interactions and social setting play an essential part in the progress of their financial literacy.

2.4 Determinant of Financial Literacy- Indian Scenario

In his study "Financial literacy of economically marginalised people of Kerala," Joseph (2012) attempted to identify the factors of financial literacy among marginalised individuals and statistically assess the relationship between these determinants and important demographic characteristics. Financial literacy was shown to be highest among marginalised persons with relatively high incomes and educational backgrounds, as well as in households where both parents make financial decisions. Financial literacy,

according to the researcher, may be increased by improving financial education and family income.

Bindhu (2013) in her study "Financial literacy and Income level influences on the savings and investment pattern of urban city households: An empirical study with special reference to Coimbatore city," observed that gender and age did influence financial literacy. Compared to their male counterparts, women investors were more familiar with and have a higher level of financial literacy. Young investors aged 25-35 were more interested than older investors aged 40 and above in making investments in financial market products, according to the study.

Jariwala (2013) conducted a work titled "To study the level of financial literacy and its impact on investment decision- an in-depth analysis of investors in Gujarat state." She studied the relationship between the financial literacy level of the investors and their socio-economic and demographic factors. The study found that females and respondents falling under low-income groups possess lower financial literacy. Financial literacy is observed to be higher among those who shop around the most/make the most enquiries while investing. Furthermore, respondents with a greater number of years of investment experience have a better level of financial literacy than others.

Bhushan and Medury (2013) in their study "Financial literacy and its determinants," set out to find out the extent of salaried individuals' financial literacy by taking into account different socio-economic and socio-economic variables. The findings of the study revealed that financial literacy is poor in general and that it is influenced by education, income, gender, job type and location of employment, but not by age or geographic region of the country or world.

The study "Financial literacy among working young in Urban India," done by Agarwalla, Barua, Jacob, and Varma (2015) investigated the impact of several socio-demographic characteristics on different aspects of financial literacy among urban India's working young people.

Several factors, like gender, education, and income, had a comparable impact on financial literacy, but some factors unique to India, like a collaborative decision-making process and joint families, were found to have a substantial impact.

Bhusan (2014) tried to find out the extent of financial literacy of individuals who are salaried and the link between their financial literacy level and socio-demographic characteristic in his study "An empirical study of financial and tax literacy of salaried individuals." The author found that salaried people have poor financial knowledge.

Females, those with lesser levels of education, those with lower incomes, those working in government sectors, and those living in rural regions are all shown to be less financially savvy.

Singh (2014) in his work titled "Financial literacy and financial stability are two aspects of efficient economy", has focused on numerous critical aspects that are required for financial literacy in order to achieve effective financial and economic stability. They concluded that the capability of making sound financial decisions is crucial to building a strong personal financial plan, which contributes to the effective allocation of financial resources and financial stability. More than that, financial illiteracy appears to be disproportionately prevalent among key segments of the population like women, less educated, older respondents, those having lower incomes, and ethnic minorities. The study also discussed the role of the RBI in improving financial literacy.

Sinha and Gupta (2013) in their study “Financial inclusion and financial literacy: a comparative study in their interrelation between selected urban and rural areas in the state of West Bengal” investigated whether financial literacy levels in urban and rural areas were affected by financial inclusion and other demographic variables. The financial literacy of rural respondents is substantially lower than that of their urban counterparts due to lower financial inclusion in rural areas than that in metropolitan ones. Also, there is a strong correlation between financial literacy and the financial Inclusion Index. According to the survey results, financial literacy and inclusiveness benefit each other. The statistical significance of the link between financial literacy and parameters such as household income, occupation, and educational background has also been proven.

Baluja (2016) in their study “Financial literacy among women in India: A review,” investigated the factors that influence Indian women’s financial literacy, as well as methods for increasing their financial literacy. The researcher discovered that only a few research in India focused on the variations in financial literacy between men and women. There is a large gap in the literature in terms of factors that influence such differences and measures to improve them. The levels of financial literacy in men and women are different, according to most studies, but the factors that influence these differences have not been thoroughly explored. The lack of financial literacy among Indian women can be attributed to a number of factors, including cultural, physical, psychological and financial barriers.

Akhter (2016) conducted a study titled “Financial literacy, perceived risk attitudes and investment intentions among youth in Jammu and Kashmir.” Financial literacy levels of youth were found to be affected by a number of characteristics, including gender and age as well as income and education levels. A low level of awareness is also prevalent in some segments of the population, such as low-income earners, women, and those with a poorer level of educational achievement. The findings imply that financial literacy is not a one-size-fits-all approach. The content of any financial literacy course, workshop, or seminar should be selected after taking into account the various demographic and socio-economic characteristics of the intended participants of the course.

Suganya (2017) did a study on "Study of financial literacy in connection to economic empowerment among self-help group women members in Virudhunagar district." Results and conclusions revealed that women in the selected SHGs are financially literate and economically empowered. Financial literacy, according to the research, enables people to make better decisions regarding finance and to understand their rights and duties. Except for the variables respondent’s age and loan's purpose, other intervening variables such as qualification in education, occupation, the group's age, number of years in the group, and number of times a loan has been taken influence the women members’ financial literacy in SHGs.

Gupta (2017) studied the determinants of financial literacy in her study “A study of dimensions of financial literacy and its relationship with household savings and investment.” After analysing the data, she observed that the level of financial literacy significantly correlated with individuals' ages, genders, education attainment, monthly income, stage of the family life cycle, occupation, type of work, years of experience in investing, the number of times they shop around and their tolerance for risk. Financial literacy is lowest among females, those aged 51-55 years and 31-35 years, those with the lowest income, and those with the highest risk-taking abilities. It was also discovered that respondents with more years of investment experience have a higher degree of financial literacy, as do those who shop about the most and make the most queries while investing.

Kamboj (2017) set out to investigate the effect of various demographic parameters on respondents' financial literacy in his study titled "A study of financial literacy and its impact on investing behaviour." The research revealed that a significant number of people fall into the average financial literacy category, which is concerning. An

examination of socio-demographic data, on the other hand, suggests that low income, income instability, and young age are all linked to a lack of financial literacy.

Based on prior studies, Garg and Singh (2018) examined the youth's financial literacy level all around the globe in their study "Financial literacy among young." The survey states that youth financial literacy is poor throughout many parts of the world, which is worrisome. In addition, a variety of socioeconomic and demographic characteristics, including age, gender, income, educational achievement marital status has been found to influence youth's financial literacy.

A study titled "Financial literacy and financial wellbeing among rural households in Tirupur district - an empirical study" was conducted by Nanda and Samanta (2018). According to the findings, men are more financially literate than women. It is reflected in the respondents' basic and investing literacy. Impulsivity, time orientation, social status, locus of control, self-control, and attitudes toward saves, spending and borrowing are all significant factors of financial literacy among the respondents. Locus of control and Self-control are two determinants that have a considerable impact on respondents' financial literacy.

Based on the studies above, financial literacy is influenced by a variety of factors, the most significant of which are an individual's income, gender, age, and educational achievement.

2.5 Financial Literacy and Financial Behaviour-Global Scenario

Lusardi (2008) highlights the prevalence of financial illiteracy among Americans in her research work "Household saving behaviour: the role of financial literacy, information, and financial education programs." Low levels of education and inadequate information also influence the capability to save and plan for good superannuation, and lack of basic financial knowledge is associated with poor planning for retirement and financial insecurity. They came to the conclusion that financial education programs can aid people in saving more money and in making better financial decisions, though there is still room for improvement.

In their study "Financial literacy and portfolio diversity," Abreu and Mendes (2010) discovered that there is a beneficial bearing of educational levels and financial knowledge of investors on their portfolio diversification. The amount of various assets comprised in a portfolio is influenced by the information sources utilized by retail investors to collect market and financial product information.

In their study “Expectation of inflation: The role of demographic variables, expectation formation and financial literacy,” Bruine de Bruin et al. (2010) attempted to determine whether those with poorer financial literacy levels have higher inflation expectations. With regard to inflation expectations, they found that those with poorer financial literacy and those who spent more time thinking about specific prices and how to manage expenses were more likely to have greater inflation predictions. Further, they determined that financial literacy could influence retirement planning, stock market participation, and portfolio choice. In addition, it has been linked to consumer and health plan choices. To summarize the study found that educational interventions aimed at improving financial literacy as well as awareness of inflation may help augment financial choices with long-term implications.

Fornero and Monticone (2011) looked at the impact of financial literacy on individual behaviour when it comes to retirement planning in their paper "Financial literacy and pension plan participation in Italy." They used data from the survey conducted by the Bank of Italy on Household income and wealth (2006) to see if financial literacy influences the decision of individuals to start a pension plan. Financial literacy affects the likelihood of saving for retirement via a pension plan in a good and significant way. Even after controlling for other potential factors of pension plan participation, such as retirement age and risk preferences, as well as the predicted social security replacement rate, the study found that financial literacy improves the likelihood of involvement in a pension fund. The findings show that particular population sub-groups tend to lack more financial knowledge as well as abilities needed to meet the challenges provided by the reformed pension system. While having a better understanding of finances would be advantageous in general, financial education measures should be aimed particularly at such individuals.

Behrman, Mitchell, Soo, and Bravo (2012) conducted a study titled “How financial literacy affects household wealth accumulation.” This study differentiates the causative impacts of financial literacy and schooling on wealth building using a novel dataset on households as well as the IV (instrumental variables) technique. In linear regression models, both educational attainment and financial literacy are substantially related to wealth outcomes, but the IV estimates demonstrate that financial literacy has an even stronger effect. It's also been shown that the schooling benefit is only favourable when it's combined with financial literacy. Investing in financial literacy has a considerable

impact on wealth, according to the estimates. Overall net worth and each of its components are positively related to financial literacy.

Huston (2012) carried out a study titled “Financial literacy and the cost of borrowing.” According to the findings, people having sound financial literacy are likely to have lower borrowing expenses for mortgage loans and credit cards. Their borrowing costs are likely to be less, either because they have made a series of financial decisions that have resulted in a financial situation in which they can choose from a variety of lower-cost borrowing options, or because they are well equipped to choose among borrowing options or both. The results of this study show that being financially literate enhances the likelihood that American consumers will make cost-effective borrowing selections.

To evaluate the relationship between individual saving and financial literacy, Mahdzan (2013) conducted a study entitled "The impact of financial literacy on individual saving: an exploratory study in the Malaysian context." The author found there is a substantial influence of financial literacy on individuals’ savings. A favourable influence on the likelihood of saving was also seen with consistent saving, gender, income, and educational level.

Babiarz and Robb (2014) examined the relationship between objective and subjective financial knowledge, as well as the likelihood of having emerging savings in their study, "Financial literacy and emergency saving." Researchers found that financial knowledge, a critical component of household financial stability, is substantially correlated with the accumulation of emergency reserves. In addition, they emphasized the necessity of education programs that increase financial knowledge, which isn't always well-defined. They advised that financial experts and consumer educators should evaluate their endeavours in relation to the actual behaviours. And also, further studies should focus on determining what types of programmes lead to desired financial behaviour. According to the analysis, objective and subjective knowledge are equally important and programs should be designed to improve both forms of knowledge.

Xiao et al. (2014) conducted a study named "Financial literacy overconfidence and stock market participation" so as to explore the relationship between financial literacy overconfidence and stock market involvement. Using data from the 2012 'Chinese Survey of Consumer Finance,' respondents' overconfidence in financial literacy was estimated as the gap between their objective and subjective financial literacy scores. According to the findings, overconfidence in financial literacy is positively connected to

stock market engagement. On the other hand, under-confidence is inversely associated with stock market engagement.

The study "Impact of financial literacy of the population of the Russian Federation on Behaviour" (Fedorova, Nakhaenko, & Doyzhenko, 2015) sought to find out the impact of financial literacy on people's behaviour in the financial market. It was discovered that Russians aren't very well-versed in financial literacy. Only 39% of respondents had basic financial literacy, 29% had advanced financial literacy, and only 13% understood the nuances of the Russian stock market. The result also shows that financial literacy levels of respondents affect their frequency of participation in the financial market. Another finding is that respondents' financial literacy has an impact on their engagement in the financial sector. In addition, more financially literate people were more active in the stock market, invest in their retirement funds, and have fewer non-performing loans in the bank as well. Quite a lot of similar research conducted in developed and developing nations support the conclusions obtained from surveys of Russian citizens. Nevertheless, according to their findings, in order to engage in the financial market, one must acquire at least an advanced level of financial literacy. As the last point, they emphasized the importance of financial literacy for all citizens. Financial literacy increases the standard of living and trust in the economy's and society's future stability and success, no matter what the individual's goals are.

Zahirovic-Herbert, Gibler, and Chatterjee (2016) "Financial literacy, risky mortgages, and delinquency in the US during the financial crisis" aimed to analyse if poor financial literacy is connected with the usage of delinquency and risky mortgages. According to their findings, borrowers having inadequate financial literacy are prone to have a risky mortgage and are more likely to default on their payment of the mortgage. Financial literacy, according to the study, is crucial to the viability of the housing and mortgage markets. They also discovered that improving general financial literacy and, in particular, educating borrowers about mortgage conditions results in better matching of borrowers with loan instruments. It consequently, minimizes default, delinquency and harm to the borrowers' credit record.

In their study "The effects of perceived and actual financial literacy on financial behaviour," Allgood and Walstad (2016) looked at how respondents' overall financial literacy influences their financial behaviour on financial topics viz. investments, loans, insurance, credit cards, and financial counselling. In spite of the lack of causality, the

study demonstrates that perceived, as well as actual financial literacy, seem to affect financial behaviours, with the latter possibly being as important as the former.

According to the study, "The impact of financial literacy on student teachers saving intention and saving behaviour" (Widyastuti, Suhud, & Sumiati, 2016). They explore the effects of financial literacy, subjective norms, and attitudes on saving behaviour and intention of the teacher-student i.e., pre-service teachers at a public university. They were pre-service instructors who may become long-term promoters of financial literacy in the classroom. Through an online survey, 212 valid instruments were used to collect data. The results exhibited a negligible effect of financial literacy on attitudes toward saving and saving intentions, but financial literacy and saving intentions had a considerable effect on saving behaviour. Again, attitudes and subjective norms played a substantial role in saving intentions.

To evaluate the possible impact of financial literacy on investment return and portfolio choices of households (Chu, Wang, Xiao, & Zhang, 2017), the authors conducted a study named "Financial literacy, portfolio choice and financial well-being." Financial literacy was tested using data from ‘Chinese Survey of Consumer Finance’ (2014) and further classified into basic and advanced financial literacy. They found that households having higher levels of financial literacy, particularly advanced financial literacy, were more likely to entrust at least a part of their portfolios to professionals and make mutual fund investments. Overconfident householders, on the other hand, tend to invest on their own and end up with a portfolio of only stocks. Financial literacy was also associated with a better investment return for households who had higher financial literacy, indicating increased financial literacy may lead to better financial outcomes.

Murendo and Mutsonziwa (2017) sought to analyse the influence of respondents’ financial literacy on the savings behaviour of adult consumers in Zimbabwe using data from the Fin Scope Survey in their study "Financial literacy and savings decisions by adult financial consumers in Zimbabwe." They concluded that financial literacy affects both rural as well as urban individuals' savings behaviour. It also has a positive impact on both informal and formal savings.

Baidoo, Boateng, and Amponsah (2018) conducted a study titled “Understanding the determinants of saving in Ghana: Does Financial Literacy Matter?” They investigated the factors influencing individuals' savings among the people of Ghana in this paper, with a view on financial literacy. As per the findings of this study, financial literacy has a favourable link with savings. Individuals' propensity for saving increases as their score of

financial literacy rises on a scale ranging from 0 to 5. To be more specific, the marginal effect demonstrates that, at a 5% significance level, responding to an additional financial literacy question correctly improves the propensity to save by 2.3%. Individuals who are financially savvy, on the other hand, may see the necessity of saving as opposed to others who are less financially literate.

2.6 Financial Literacy and Financial Behaviour- Indian Scenario

Jariwala (2013) had carried out a study titled "To study the level of financial literacy and its impact on investment decision- an in-depth analysis of investors in Gujarat state." One of the principal goals of the study was to find out the effect of financial literacy on investors' investment decisions. The author discovered that the majority of investors had low financial literacy. Also, he observed that financial literacy encourages prudent spending and savings, and has a statistically significant impact on investors' investing decisions.

Bhushan (2014a) conducted a study titled "Relationship between financial literacy and investment behaviour of salaried individuals," to study how financial literacy levels affect salaried individuals' knowledge and investing preferences when it comes to financial products. The researcher found that financial literacy affects respondents' awareness of and investing preferences for financial products. Financially illiterate individuals, according to the report, make an investment in financial products that are traditional and are unable to take benefit of new financial products that has the potential to provide them with higher returns on their investments. As per the author, governments and policymakers should make the necessary efforts to raise the degree of financial literacy among people.

Bhusan (2014) in his study "An empirical study of financial and tax literacy of salaried individuals," sought to find out the salaried individual's financial literacy level and how financial literacy affects their awareness of financial products and investment preferences. According to the study, salaried workers have a low level of financial knowledge. He found that many of them invest in traditional and secure investing options. People were unable to take advantage of numerous financial products offered in the market due to a lack of awareness.

Krishnan (2014), in their project report "A study of financial inclusion and financial literacy the tribal people in Wayanad district in Kerala", examined the tribal people's financial literacy level and evaluated their abilities to select appropriate financial

products or services. The tribal people were found to be under-informed about a variety of financial items and procedures. A large majority of the respondents use banking services, according to the report. There is a general lack of interest in mutual funds, pension funds or financial markets, though.

As part of a study entitled "Financial literacy, perceived risk attitudes and investment intentions among young people in Jammu and Kashmir," Akhter (2016) sought to analyse the impact of financial literacy on the investment intentions of young people, and how risk attitudes affect that relationship. According to the study, there is a direct impact of the level of financial literacy on investment intentions. A better level of financial knowledge was found to increase investment intentions, the researcher concluded. A high level of financial awareness is also connected with a more positive attitude towards the risks associated with investments. Financial knowledge makes the youth realize the importance of properly evaluating the information and creating a favourable attitude towards investments in addition to savings by clearly enabling them to differentiate between the things to be avoided and the things to be accepted for better returns and proper utilization of the resources. Young people who are financially literate are better equipped to analyse information and develop a positive attitude towards investing by being able to distinguish between what should be avoided and what should be accepted for greater returns and proper usage of resources.

Kamboj (2017) carried out a study titled, “A study of financial literacy and its impact on investment behaviour.” Using the respondents' financial literacy and investment behaviour scores, the study sought to find out the effect of financial literacy on the respondents' investing behaviours. To investigate the respondents' financial literacy level and investment behaviour, six additional questions were asked of the respondents. The study examines respondents' willingness to take risks, their subsequent behaviour and their awareness of return on investment. The study also examines any regrettable financial decisions made by respondents, as well as the course of action they chose and the requirement for financial literacy programs. A substantial positive correlation was also found between investment behaviour and financial literacy, according to the results of the survey. People having a high level of financial literacy have a greater possibility of making good investing selections. Financial behaviour is one of the significant dimensions of financial literacy, and it has been found to be a major influence on investment behaviour. The researcher found that respondents with favourable financial behaviour tended to have positive investment behaviour as well. Some of this could be

attributed to the prudent financial strategies they adopt in their daily lives, such as budgeting, saving, long-term planning, and tracking financial affairs.

As per studies conducted both globally and in India, financial literacy increases the possibility that consumers/individuals will perform better in financial matters. According to studies, it has a favourable impact on cost-effective borrowing, mortgages, stock market participation, portfolio decisions, planning for retirement, household savings, and so on. It raises the standard of living and financial stability as a result.

The various literature reviews helped the researcher find out the existing research gap in the literature. Objectives for the proposed study are framed according to the gap identified. The research gap has been discussed in detail in the following section.

2.7 Research Gap

On reviewing the existing literature, it was found that some similar studies have been carried out on financial literacy all across the world. The majority of the studies have confirmed that financial is literacy is low among different groups of the society and needed to be improved. Although some work had already been done on investigating the bearing of financial literacy on financial behaviour, most of such studies were carried out in developed countries such as the USA, UK, Australia and many others, but only a few were found in developing countries (Murendo & Mutsonziwa, 2017; Sayinzoga et al., 2016; Thara & Ali, 2014). Moreover, only a few researches have focused on comparative studies like urban and rural financial literacy.

From the literature reviewed so far, it was found that such studies in the context of India are also less when compared to developed countries (Bhushan, 2014b; Bhushan & Medury, 2013; Bindhu, 2013; Jariwala, 2013; Prusty, 2011). While such studies are less in India, they are few in North-East India to the best knowledge of the researcher. In particular, no such study has been found in Arunachal Pradesh which is one of the least developed states in India. Further, such studies on tribal people are even more limited.

Socio-economic and demographic effects on financial literacy and how financial literacy is impacting the saving and investment behaviour have also been unexplored in Arunachal Pradesh to the best of the researcher's knowledge.

Thus, this study is a step in that direction, evaluating the state of financial literacy among individuals of Arunachal Pradesh and analyzing its impact on their saving and investment behaviour in a more intensive manner. At the same time, the effort will be made to determine the relationship between various socio-economic and demographic

factors that may affect financial literacy of tribal people in urban and rural areas of Arunachal Pradesh.

2.8 Chapter Summary

This chapter begins with a review of the literature on the assessment of financial literacy, which was followed by a discussion of its causes and relationship with financial behaviour. In three sections, investigations conducted in both an international and an Indian context are discussed. This is followed by the research gap based on the literature review.

CHAPTER 3

RESEARCH METHODOLOGY

3.0 Introduction

The research methodology is the path that researchers must take in order to conduct their research. In view of that, the approach used to attain the research objectives are discussed in this chapter. Comprehensive information on the research design, sampling design, procedure of data collection and the techniques used for data analysis are given in the following sections.

3.1 Objectives

The following objectives are the focus of this study:

1. To assess the level of financial literacy of selected urban and rural areas of Arunachal Pradesh.

   This objective is an attempt to assess the different financial literacy levels of the urban and rural people of the study area. It is an effort to know whether the financial literacy level varies in different areas of the state. Moreover, this objective was required to be fulfilled in order to achieve objectives 2 and 3.
2. To find out the relationship between the level of financial literacy and socio-economic and demographic factors.

   In order to know the various factors that may affect the level of financial literacy, objective 2 was also undertaken in the study. This objective was required to be fulfilled so as to know the key factors that influences the financial literacy of urban and rural people.
3. To study the impact of financial literacy on saving and investment behavior of selected urban and rural areas of Arunachal Pradesh.

   This objective was taken in order to know the impact of different levels of financial literacy on saving and investment behavior of the urban and rural households of selected districts.

3.2 Hypotheses

The following null hypotheses have been formulated in order to achieve the above objectives:

1. **H_0:** There is no significant association between area and the levels of financial literacy.

H_1: There is a significant association between area and the levels of financial literacy.

2. **H_0:** There is no significant difference between gender and the level of financial literacy.

   H_1: There is a significant difference between gender and the level of financial literacy.

3. **H_0:** There is no significant association between marital status and the levels of financial literacy.

   H_1: There is a significant association between marital status and the levels of financial literacy.

4. **H_0:** There is no significant association between education level and the levels of financial literacy.

   H_1: There is a significant association between education level and the levels of financial literacy.

5. **H_0:** There is no significant association between age and the levels of financial literacy.

   H_1: There is a significant association between age and the levels of financial literacy.

6. **H_0:** There is no significant association between category and the levels of financial literacy.

   H_1: There is a significant association between category and the levels of financial literacy.

7. **H_0:** There is no significant association between occupation and the levels of financial literacy.

   H_1: There is a significant association between occupation and the levels of financial literacy.

8. **H_0:** There is no significant association between respondent monthly income and the levels of financial literacy.

   H_1: There is a significant association between respondent monthly income and the levels of financial literacy.

9. **H_0:** There is no significant association between household monthly income and the levels of financial literacy.

   H_1: There is a significant association between household monthly income and the levels of financial literacy.

10. **H_0:** There is no significant association between the responsibility of money management and the levels of financial literacy.

    H_1: There is a significant association between the responsibility of money management and the levels of financial literacy.

11. **H_0:** There is no significant association between additional income and the levels of financial literacy.

    H_1: There is a significant association between additional income and the levels of financial literacy.

12. **H_0:** There is no significant association between the nature of workplace activity and the levels of financial literacy.

    H_1: There is a significant association between the nature of workplace activity and the levels of financial literacy.

13. **H_0:** There is no significant association between household size and the levels of financial literacy.

    H_1: There is a significant association between household size and the levels of financial literacy.

14. **H_0:** There is no significant association between the number of dependent and the levels of financial literacy.

    H_1: There is a significant association between the number of dependent and the levels of financial literacy.

15. **H_0:** There is no significant association between the number of earning members and the levels of financial literacy.

    H_1: There is a significant association between the number of earning members and the levels of financial literacy.

16. **H_0:** There is no significant influence of the financial literacy level of respondents on their saving and investment behaviour.

    H_1: There is a significant influence of the financial literacy level of respondents on their saving and investment behaviour.

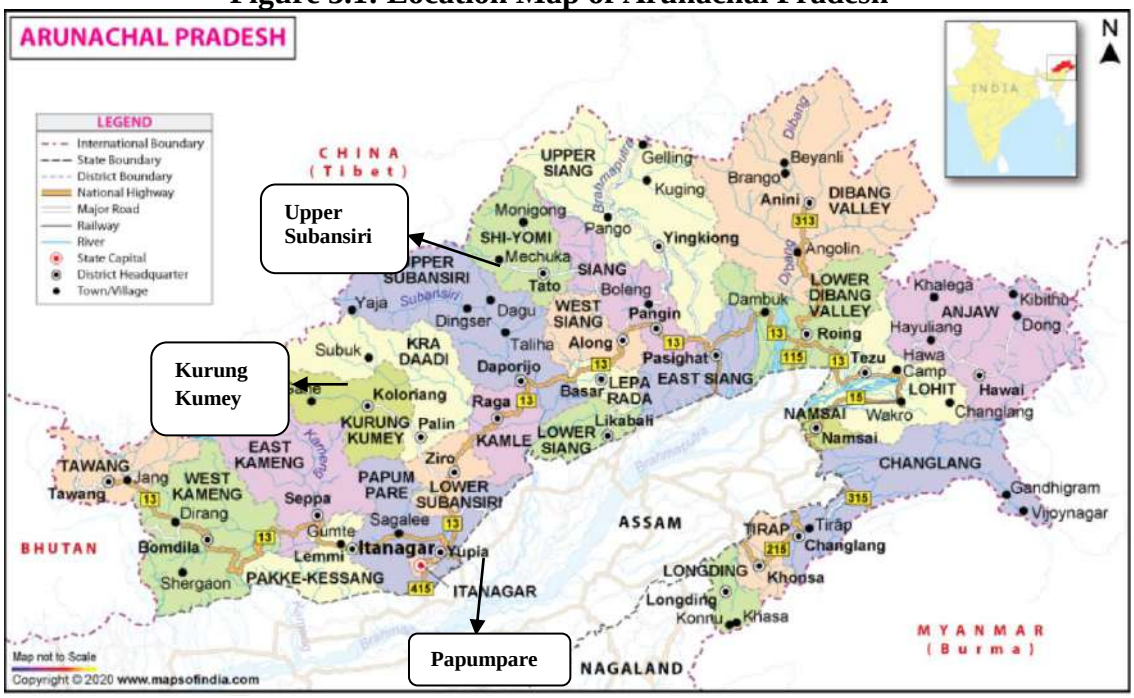
3.3 Scope and Limitations of the Study

3.3.1 Scope

The study's main focus was on household financial literacy in both urban and rural areas. The research attempted to ascertain whether there is any disparity in the degree of

financial literacy in both areas. It also aims to determine the relationship between various socio-economic and demographic factors that may affect the respondent's level of financial literacy. In addition, an effort is made to determine the impact of the level of financial literacy on household saving and investment behaviour in the selected districts of Arunachal Pradesh. The study has considered only those individuals who are financial decision-makers and take most of the financial decisions at home. The extent of the study is three districts of Arunachal Pradesh that are selected on the basis of high, average and low literacy rate of Arunachal Pradesh according to census 2011. The data have been collected within the time frame of October 2018 to August 2019.

Figure 3.1: Location Map of Arunachal Pradesh



Source: *https://www.mapsofindia.com/maps/arunachalpradesh/*

3.3.2 Limitations

The present research is only performed on household financial decision-makers in three districts of Arunachal Pradesh. The study is therefore subject to geographical limitations. As the socio-demographic and cultural structure of households varies within Arunachal and across India, the study's findings may not be generalizable to the states or the country as a whole. Due to the unavailability of proper data for the sampling frame and poor accessibility of houses in the study area, probabilistic sampling could not be used to select the individuals. The final sample collection was therefore carried out using convenience sampling that has its own disadvantages, but efforts were made to minimize

this issue as much as possible. The study was conducted only on-demand side of financial literacy.

3.4 Research Design

"A research design is a framework or blueprint for conducting the research. It details the procedures necessary for obtaining the information needed to structure or solve the research problem," (Malholtra & Dash, 2016, p.70). Depending upon the needs and nature of the problem or investigation, a research project may include more than one type of research design. The current study is both exploratory and descriptive in nature. It explores the individual's level of financial literacy as well as describe the impact of financial literacy level on the saving and investment behaviour of households. The sources used are both primary as well as secondary. The study was based on survey and observation methods, and the data were collected from three districts of Arunachal Pradesh between the period of October 2018 to August 2019. The instrument used for data collection was a structured questionnaire which was finalised after getting inputs from a preliminary study.

3.5 Sources of Data Collection

To collect data primary as well as secondary sources were used. Primary data was collected via a survey method using a questionnaire. For collecting secondary data several journals, theses, websites, annual reports, government publications, books, magazines and newspapers were used.

3.5.1 Preliminary Survey

Before conducting a final survey, a pilot survey was conducted in Papumpare and Kurung Kumey districts to understand the feasibility of the study, availability of data for selecting sampling technique and to finalize the questionnaire. The pilot survey revealed that there was a lack of data for sampling frame to select the households in the study area, thus the application of the probability sampling technique was not possible. This survey also helped in making necessary corrections that were required to accomplish the aims of the study. Total four places were undertaken for the pilot survey viz., in Papumpare district, Balijan (Rural) and Itanagar (Urban), in Kurung Kumey district, Sangram (Rural) and Koloriang (Urban). The total number of respondents taken for the pilot survey was:

Table 3.1: Sample Size for Pilot Survey

District	Area	Respondent
Papumpare	Itanagar (Urban)	20
	Balijan (Rural)	20
Kurung Kumey	Koloriang (Urban)	20
	Sangram (Rural)	20
Total Respondent		80

3.5.1.a Reliability

"Reliability refers to the extent to which a scale produces consistent results if repeated measurements are made," (Malholtra & Dash, 2016, p.278). It is a measure of how consistent multiple measurements of a variable are (Hair, Black, Babin, & Anderson 2009). Cronbach's alpha, one of the most commonly used reliability measures, is used to test the reliability. A value of 0.60 is considered a good reliability measure, implying a strong relationship between the variables. The estimated Cronbach's alphas are greater than 0.60, indicating that the questionnaire is reliable (Malholtra & Dash, 2016). The result of Cronbach's alpha for the pilot study is given below: -

Table 3.2: Reliability Test Result

Variables	Cronbach's Alpha	No. of Items
Financial Attitude	.717	13
Financial Behaviour	.736	16
Priority of Saving and Investment	.649	10
Factors Considered for Saving and Investment	.633	7
Overall	.760	46

3.6 Research Instrument

The data was collected using a structured questionnaire from respondents in the selected districts' rural and urban areas.

3.7 Variables Under Consideration

The following variables were considered to attain the study's objectives:

3.7.1 Assessing the Level of Financial Literacy of Selected Urban and Rural Areas of Arunachal Pradesh: To fulfil the study's first objective, a survey was conducted by using a questionnaire as the research instrument. Information required for measuring financial literacy was collected on the basis of questionnaires recommended by OECD/ INFE (International Gateway for Financial Education). The OECD approach for measuring financial literacy is widely used in literature and is more comprehensive. It

attempts to assess financial literacy by incorporating the most likely dimensions/ components of financial literacy, namely financial knowledge, financial behaviour, and financial attitude. Few additions were made in the questionnaire considering the need of the study areas (Bhushan, 2014; Potrich et al., 2015).

Various sub-variables under each of the above three dimensions are given in the second column of the table. Some studies which had used the same measurement are also shown in the third column as follow: -

Table 3.3: List of Variables

Variables	Sub-Variables	Sources
Financial Knowledge	a) Time value of money b) Compound interest c) Saving d) Risk and return e) Inflation f) Risk Diversification g) Stock market h) Mutual fund i) Bond	(Gupta, 2017; Jariwala, 2013; OECD/INFE, 2015; Potrich et al., 2015)
Financial Behaviour	a) Financial planning b) Saving c) Bill & Payment d) Responsible investment e) Source of information Financial products and services	(Bhusan, 2014; O'Neill & Xiao, 2012; OECD/INFE, 2015; Potrich et al., 2015)
Financial Attitude	a) Attitude toward money b) Financial responsibility	(Bhusan, 2014; Das & Dutta, 2014; J. Gupta & Madan, 2016; OECD/INFE, 2015; Potrich et al., 2015; Thapa & Nepal, 2015)

In this section of the questionnaire, the statements for the first dimension or variable i.e., financial knowledge are in categorical scales. For the other two dimensions i.e., financial behaviour and financial attitude the statements are on a 5-point Likert scale and are scored as strongly agree, agree, neutral, disagree and strongly disagree. The statements were modified according to the requirement of the study. The detailed method of assessing the financial literacy level is given in chapter 4.

3.7.2 Measuring Relationship Between the Level of Financial Literacy and Socio-Economic and Demographic Factors

To fulfil the second objective of the study, an analysis was performed for each of the socio-economic and demographic variables identified from the past literature that could have had an effect on the respondent's financial literacy level. Various variables that were used are given in the second column of this table.

Table 3.4: List of Variables

Variables	Sub-Variables	Sources
Socio-Economic and Demographic Variables	a) Gender b) Age c) Level of education d) Place of work e) Marital status f) Type of occupation g) Monthly income h) Nature of work i) Dependent family members j) Source of information	(Bhushan & Medury, 2013; Gallery et al., 2011; Jariwala, 2013; Kumar & Anees, 2013; Murendo & Mutsonziwa, 2017; Potrich et al., 2015; Thara et al., 2014)

3.7.3 Impact of Financial Literacy on Saving and Investment Behaviour of Selected Urban and Rural Areas of Arunachal Pradesh

To fulfil the third objective of the study, first of all, the saving and investment pattern of respondents were being identified. The saving pattern was divided into three broad variables i.e., Informal, Semi-formal and Formal saving mechanisms. The third column of table 3.6 lists the sub-variables for each broad variable. Similarly, various investment options are also given with sources. In tables 3.7, 3.8, 3.9, 3.10, variables related to the third objective viz., factors considered for saving and investment, sources of information and factors prevent from saving and investment are shown. These variables were adapted from various sources and some were also created by the researcher.

Table 3.5: List of Variables

Variables	Category	Sub-Variables	Sources
Saving	Informal saving/mechanisms	a) Saving cash at home b) Saving in-kind c) Need-based institution	(Bhardwaj et al., 2013; Bhusan, 2014; Jariwala, 2013; Maheswari, 2016; Moulick, 2008; Murendo & Mutsonziwa, 2017; Sangeetha, 2013)
	Semi-formal saving/mechanisms	a) Self-help group b) Micro Finance institution	
	Formal saving/mechanisms	a) Bank b) Post office saving c) Mutual fund d) Stocks e) Gold f) Real estate	
Investment		a) Debenture and Bond b) Shares c) Foreign exchange market d) Mutual fund e) Insurance f) Bank deposit g) Derivatives h) Government securities i) Provident funds j) Post office k) Pension plan l) Chit funds m) Land/Building (Real estate) n) Precious metals (Gold/Silver etc.) o) Commodity market p) Local ornaments	

Table 3.6: Priorities on Saving and Investment Purposes

Variables	Sub-Variables	Sources
Priorities place for saving and investment purposes	a) Children's education b) Daily household expenses c) Children's marriage d) House construction e) Social ceremonies f) Comfortable life g) Health care h) Repayment of debts i) To meet contingency j) Generate future income	(Bindhu, 2013; Gloria, 2014; Moulick, 2008)

Table 3.7: Factors Considered for Saving and Investment

Variables	Sub-Variables	Sources
Priorities place factors for saving and investment consideration	a) Safety of the Principal b) Low risk c) Regular returns d) High returns e) Liquidity f) Marketability g) Tax benefits h) Prompt return on maturity period	(Bhusan, 2014; Bindhu, 2013; Jariwala, 2013)

Table 3.8: Sources of Information

Variables	Sub-Variables	Sources
Sources of information for saving and investment queries	a) General advice b) Best buy guidance c) Own personal experience d) General advertisement on television e) Newspaper and magazine	(Bindhu, 2013; Jariwala, 2013)

Table 3.9: Factors Prevents from Saving and Investment

Variables	Sub-Variables	Sources
Factors prevent from saving and investment	a) Lack of support b) Lack of knowledge c) Complex bank procedure d) No additional income e) Discretionary spending f) Medical expenses g) Income is inadequate h) Cost of living is high i) Demanding financial responsibility j) Expenditure in social events is high	(Bhusan, 2014; Bindhu, 2013)

3.8 Sampling Design

(a) Target Population: It refers to "the collection of elements or objects that possess the information sought by the researchers and about which inferences are to be made," (Malholtra & Dash, 2016 p.342). For the present study, the target population is the financial decision-maker of households belonging to the selected urban and rural areas in three districts namely Papumpare, Lower Subansiri and Kurung Kumey of Arunachal Pradesh. Basically, it consists of elements, sampling units, extent and time, the details are provided below:

i. **Element:** An element denotes "the object about which or from which the information is desired," (Malholtra & Dash, 2016 p.342). For this study elements are the financial decision-maker of the house above the age of 18 years. They can be either male or female who takes care of money matter in the family.
ii. **Sampling Unit**: A sampling unit denotes "an element, or a unit containing the element that is available for selection at some stage of the sampling process," (Malholtra & Dash, 2016 p.342). Households in selected urban and rural areas of the three districts of Arunachal Pradesh are considered as sampling units for this study.
iii. **Extent:** The study was conducted in 3 districts of Arunachal Pradesh, in India viz., Papumpare, Upper Subansiri, Kurung Kumey.
iv. **Time:** The survey was conducted within a time period of 11 months from October 2018 to August 2019.

(b) Sampling Frame: First of all, for the selection of urban and rural areas, the list of Community developments (Census 2011) was used. Secondly, the location code number of villages from census 2011 was used to select villages and for urban areas, the total wards list was collected from the Municipal Corporation offices to select the wards.

(c) Sampling Techniques: The selection of the overall sample size for this study was done by following a multistage sampling method. Probability, as well as non-probability techniques, were used in this study to select the sample. In the **first stage**, judgment or purposive sampling were used to select the districts based on the literacy rate as shown in Table 3.10 The selection of the districts was done on the basis of literacy rates. This

criterion has been selected based on the availability of district-wise data of the state. The following table shows the literacy rate of the 16 districts of Arunachal Pradesh as per the census record of 2011. These 3 districts were classified into three viz. (**a)** District with the highest literacy rate; **(b)** District with the average literacy rate; and **(c)** District with the lowest literacy rate

Table 3.10: District Wise Literacy Rate

Sl. No.	Districts	Population	Literacy Rate (%)
1	**Papumpare**	**1,76,573**	**79.95**
2	Lower Subansiri	83,030	74.35
3	East Siang	99,214	72.54
4	Lower Dibang Valley	54,080	69.13
5	Lohit	1,45,726	68.18
6	West Kameng	83,947	67.07
7	West Siang	1,12,274	66.46
8	Dibang Valley	8,004	64.10
9	**Upper Subansiri**	**83,448**	**63.80**
10	East Kameng	78,690	60.02
11	Upper Siang	35,320	59.99
12	Changlang	1,48,226	59.80
13	Tawang	49,977	59.00
14	Anjaw	21,167	56.46
15	Tirap	1,11,975	52.19
16	**Kurung Kumey**	**92,076**	**48.75**

Source: *Directorate of Economics and Statistics, GoAP (2015)*

In the **second stage**, the selected districts were sub-divided into urban and rural areas. In the **third stage**, all the community development blocks and towns were selected from the rural and urban areas respectively. CD Blocks are meant for the implementation of various development schemes of the Government. A CD block consists of a group of contiguous circles. CD block-wise name of circles and the number of villages in each circle as existed in 2011 census stated below: -

Table 3.11: CD Blocks of Papumpare

Name of CD block	Name of Circle	Area	No. of Village
Doimukh	Doimukh	Rural	25
	Gumto	Rural	6
	Itanagar	Urban	22
	Naharlagun	Urban	35
	Banderdewa	Rural	52
Sagalee	Sagalee	Urban	61
	Parang	Rural	17
	Leporiang	Rural	42
	Toru	Rural	42
Mengio	Mengio	Rural	43

Kimin	Kimin	Rural	26
	Kakoi	Rural	9
Balijan	Balijan	Rural	29
	Taraso	Rural	28
	Sangdupota	Rural	48

Source: *Census, 2011*

Table 3.12: CD Blocks of Kurung Kumey

Name of CD block	Name of Circle	Area	No. of Village
Koloriang	Koloriang	Rural	66
		Urban	
Sarli	Sarli	Rural	38
Damin	Damin	Rural	53
Parsi Parlo	Parsi Parlo	Rural	65
Nyapin	Nyapin	Rural	42
	Passing	Rural	28
Sangram	Sangram	Rural	70
	Yangte	Rural	39

Source: *Census, 2011*

Table 3.13: CD Blocks of Upper Subansiri

Name of CD block	Name of Circle	Area	No. of Village
Limeking	Taksing	Rural	14
	Limeking	Rural	22
Nacho	Nacho	Rural	51
Siyum	Siyum	Rural	49
Taliha	Taliha	Rural	86
	Payeng	Rural	20
Giba	Giba	Rural	36
	Chetam (Peer Yapu)	Rural	58
Daporijo	Daporijo	Rural	47
		Urban	
Puchi Geko	Puchi Geko	Rural	50
Dumporijo	Dumporijo	Rural	18
	Gite Ripa	Rural	25
	Gussar	Rural	35
Baririjo	Baririjo	Rural	19
	Maro	Rural	23

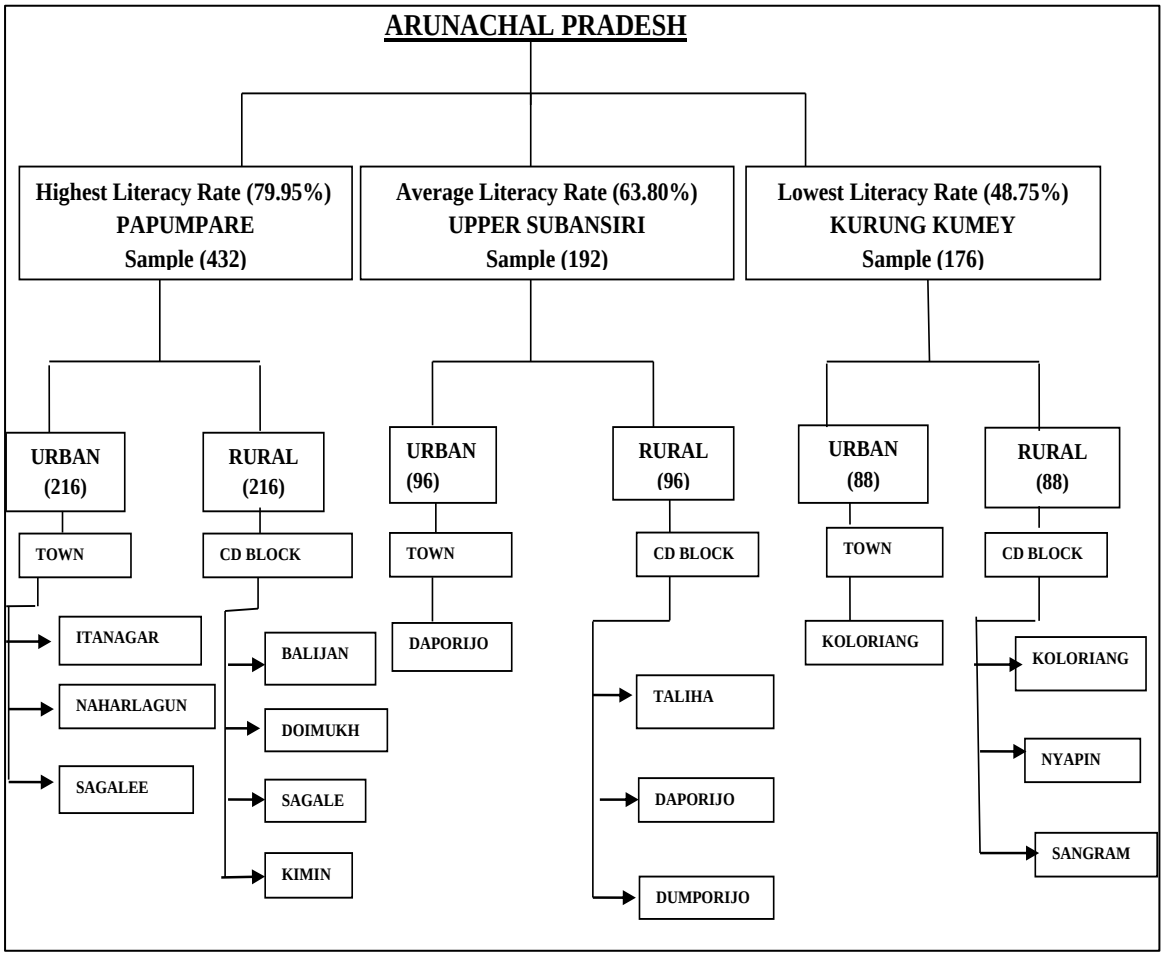
Source: *Census, 2011*

Next, the percentage of each of the community development blocks and towns under rural and urban areas were calculated out of the total number of households of all the blocks taken together.

In the **fourth stage**, villages were selected from each of the community development blocks by using simple random sampling for the rural area. From each of the selected villages, proportionate samples (with respect to the total number of households) were chosen using the convenience sampling technique. The convenience sampling had to be carried out due to the topography as well as the scattered population of the area, which restrict the use of random sampling in selecting samples. In order to obtain a more representative sample, any village selected with less than 10 households were not to be considered.

Again, for the urban area, municipality wards were selected from each of the selected towns using a simple random sampling technique. From each of the selected municipality wards, final samples were chosen using a convenience sampling technique. For better representation of the sample, at most 10 households were chosen from each of the municipality wards. Figure 3.2 gives a glimpse of sample selection.

Figure 3.2: Sample Selection Process for the Study



(d) Sample Size: The reference size of the related researches was used for sample determination in the current study. The total size of the sample for this study is 800 households. For similar studies, the average sample size was found to be approximately 679, as is shown in Table 3.14. Out of the total sample, 432 households were from Papumpare, 192 from Upper Subansiri and 176 from Kurung Kumey respectively.

The sample size for each district was calculated out of the total households of three districts. Again, the total sample in each district was divided equally for both urban and rural areas (Table 3.15). The sample size for both areas was divided equally in each district so that it can give an equal representation of the urban and rural population in the selected districts of Arunachal Pradesh.

Table 3.14: Average Sample Size of Related Studies

Author (Year)	Study Area	Sampling Technique	Sample Size
(Jariwala, 2013)	Gujarat	Convenient sampling technique	385
(Joseph, 2012)	Kerala Kottayam: Urban-75 Rural-75 Alapuzha: Urban-75 Rural-75	Multistage sampling technique, Simple random sampling technique	300
(Bindhu, 2013)	Tamil Nadu (Coimbatore city)	Multistage sampling technique, Cluster random sampling technique, Convenience sampling technique	1620
(Gloria, 2014)	Tamil Nadu Urban- Coimbatore city, Rural-Annur Taluk	Multistage random sampling technique, Stratified random sampling technique	600
(Bhusan, 2014)	Himachal Pradesh (Solan) Waknaghat	Multistage sampling technique, Random sampling technique, Purposive sampling technique	516
(Rathore, 2014)	Uttar Pradesh (Lucknow)	Convenience sampling technique	1676
(Gupta, 2017)	Delhi (Noida and Ghaziabad)	Convenience sampling technique	450
(Kamboj, 2017)	Haryana	Convenience sampling technique	500
(Bendre, 2017)	Chhattisgarh	Stratified random sampling technique	1201
(Usha, 2016)	Kerala (Alappuzha)	Stratified systematic random sampling technique	200
(Jain, 2016)	Jaipur	Purposive sampling, random	400

		sampling, systematic random sampling techniques	
(Akhter, 2016)	Srinagar	Judgement and convenience techniques	781
(Patil, 2016)	Navi Mumbai	Simple random sampling technique	400
(Suganya, 2017)	Tamil Nadu	Simple purposive random sampling technique	480
Average sample size (approximately)			**679**

Table 3.15: Sample Size Selection for the Study

Districts	Urban/Rural	Town/CD blocks	Total households	Percentage	Sample Size
Papumpare	Urban	Itanagar	13,465	63	136
		Naharlagun	7735	36	78
		Sagalee	285	1	2
		Total	**21,485**	**100**	**216**
	Rural	Balijan	2102	16	35
		Doimukh	7398	56	121
		Sagalee	2299	17	37
		Kimin	1392	11	24
		Total	**13,191**	**100**	**216**
Upper Subansiri	Urban	Daporijo	2,638	100	96
		Total	**2,638**	**100**	**96**
	Rural	Taliha	3,171	48	46
		Daporijo	1,228	19	18
		Dumporijo	2,207	33	32
		Total	**6606**	**100**	**96**
Kurung Kumey	Urban	Koloriang	463	100	88
		Total	**463**	**100**	**88**
	Rural	Koloriang	914	18	16
		Nyapin	1559	30	26
		Sangram	2656	52	46
		Total	**5129**	**100**	**88**
Total Sample Size					**800**

***Source**: Census 2011*

(a) Sample Characteristic: The sample characteristic is briefly highlighted with the help of the following table:

Table 3.16: Demographic and Socio-Economic details of respondents

Characteristics		Frequency	Percent
Area	Rural	400	50
	Urban	400	50
Gender	Male	535	66.9
	Female	265	33.1

Marital Status	Married	705	88.1
	Unmarried	69	8.6
	Separated/ Widow/ Widower	26	3.3
Age	18-25	58	7.3
	26-35	306	38.3
	36-45	250	31.3
	46-55	128	16.0
	56 and above	58	7.3
Level of Education	Primary	132	16.5
	Secondary	144	18.0
	Senior Secondary	118	14.8
	Diploma	11	1.4
	Under Graduate	82	10.3
	Post Graduate and above	161	20.1
	No Formal Education	152	19.0
Occupation	Unemployed	39	4.9
	Professional	13	1.6
	Student	10	1.3
	Self-employed	170	21.3
	Daily Wager	45	5.6
	Salaried	395	49.4
	Others	128	16.0
Nature of Workplace Activity	Finance	29	3.6
	Non-finance	771	96.4
Respondent Monthly Income	Up to 10,000	261	32.6
	10,001-20,000	127	15.9
	20,001-30,000	135	16.9
	30,001-40,000	98	12.3
	40,001-50,000	62	7.8
	50,001 and above	117	14.6
Household Monthly Income	Up to 10,000	159	19.9
	10,001-20,000	112	14.0
	20,001-30,000	119	14.9
	30,001-40,000	91	11.4
	40,001-50,000	64	8.0
	50,001 and above	255	31.9
Additional Income	No	481	60.1
	Yes	319	39.9
Additional Income Option	Agriculture	72	9.0
	Alternative business	90	11.3
	Rent from building/land	108	13.5
	Animal breeding	29	3.6
	Interest earned	14	1.7
	Share/stock	3	.4
	Multiple sources	2	.3
Household Size	2-4 members	199	24.9
	5-7 members	349	43.6
	More than 7 members	252	31.5

Number of Dependent	1	59	7.4
	2	122	15.3
	3	135	16.9
	4	129	16.1
	More than 4	322	40.3
	None	33	4.1
Number of Earning Member	1	343	42.9
	2	379	47.4
	3	50	6.3
	4	16	2.0
	More than 4	12	1.5
Category	Below Poverty Line (BPL)	259	32.4
	Above Poverty Line (APL)	541	67.6

Table 3.16 shows the demographic and socio-economic profile of the sample respondents used for the present study. The sample constitutes 50% of rural and 50% of urban respondents. 66.9% are male out of the total sample, while 33.1% are female. The majority of the respondents are married (88.1%), 8.6% is unmarried, and 3.3% belong to the separate/widow/widower group. With respect to age 7.3% of respondents is between 18-25 age group, 38.3% between 26-35, 31.3% between 36-45, 16.0% between 46-55 and 7.3% between 56 and above. Out of the total sample, 16.5% have studied up to the primary, 18.0% up to secondary, 14.8% up to senior secondary, 1.4% diploma, 10.3% undergraduate, majority of 20.1% did Postgraduate and above and 19.0% did not do any formal education. With regards to occupation, out of the total sample, 4.9% of respondents falls under the group unemployed, 1.6% are professionals, 1.3% are student, 21.3% are self-employed, 5.6% are daily wager, 49.4% salaried and 16.0% are engaged in other occupations. The nature of workplace activity is divided into two i.e., finance and non-finance, 3.6% of respondents work in finance-related work whereas 95.4% in non-finance related work. The sample constitute of 32.6% respondent whose monthly income is up to Rs.10,000, 15.9% falls under Rs.10,001-20,000 income level group, 16.9% under Rs. 20,001-30,000, 12.3% under Rs. 30,001-40,000, 7.8% under Rs. 40,001-50,000 and 14.6% have monthly income Rs. 50,001 and above. In case of household monthly income, 19.9% of total sample earn up to Rs.10,000 in a month, 14.0% have monthly income between Rs.10,001-20,000, 14.9% between Rs. 20,001-30,000, 11.4% between Rs. 30,001-40,000, 8.0% between Rs. 40,001-50,000 and majority of 31.9% respondents' household monthly income is Rs. 50,001 and above. 60.1% of the respondents do not have additional income whereas 39.9% have additional income. Of the total respondents with additional income, 9.0% earn from agriculture,

11.3% have an alternative business, 13.5% earn rent from building/land, 3.6% earn from animal breeding, 1.7% earn interest on loans, 0.4% earn from the stock market and 0.2% have multiple sources.

The total sample consists of respondents with a household size of 2-4 members (24.9%), 5-7 members (43.6%) and more than 7 members (31.5%). The sample also includes 7.4% of respondents with 1 dependent, 15.3% with 2 dependents, 16.9% with 3 dependents, 16.1% with 4 dependents, 40.3% with more than 4 dependents and 4.1% of respondents who do not have any dependents. 42.9% of the total sample have 1 earning member in the family, 47.4% have 2 earning members, 6.3% with 3 earning members, 2.0%with 4 and 1.5% with more than 4 earning members. With respect to the category, 32.4% of the total sample comes under the BPL group and 67.6% under the APL group.

3.9 Framework of Analysis

The present study uses both descriptive and inferential statistics. For checking the reliability of the questionnaire, Cronbach alpha has been calculated. The statistical tools administered to analyse the data were carefully selected depending upon the objectives focused and the nature of data to be processed. The applied statistical tools are:

Frequency distribution

The counting of responses or observations for each of a variable's categories or codes is known as frequency distribution (Deepak & Neena, 2015, p.323). This is a simple statistical method that is widely used in primary data analysis and interpretation. In the current analysis, frequency and percentages were used to determine the distribution pattern of respondents in relation to variables such as financial literacy level, socio-economic and demographic factors, scoring saving and investment behaviour etc.

Cross tabulation

"A statistical technique that describes two or more variables simultaneously and results in tables that reflect the joint distribution of two or more variables that have a limited number of categories or distinct values," (Malholtra & Dash, 2016, p.459). It aids in the understanding of how one variable interacts with another, or in other words, it aids in the identification of interrelationships between variables. In the study, cross-tabulation is done for level of financial literacy with areas (urban and rural) in objective 1, level of

financial literacy with socio-economic and demographic variables in objective 2, level of financial literacy and saving and investment behaviours in objective 3.

Chi-square Analysis

"It is used in cross-tabulation to see if the observed association is statistically significant," (Malholtra & Dash, 2016, p.465). It helps determine if the two variables are linked in a systematic way. In the current study, this test was carried out to test the association between financial literacy and various socio-economic and demographic factors.

Ordinal Logistic Regression

Logistic regression is the suitable regression analysis to apply whenever the dependent variable is dichotomous (binary). Logistic regression is a predictive analysis like any other regression analysis. It is carried out in order to explain data and the link between a dependent variable (binary) and one or more independent variables on a nominal, ordinal, interval or ratio scale. Ordinal regression models and logistic models for dichotomous outcomes are closely related (O'Connell, 2006). The dependent variable in ordinal logistic regression is an ordered categorical variable, while the independent variable might be a categorical, interval, or ratio scale variable. This regression is used in the current research to investigate the effects of financial literacy on saving and investment behaviours (Objective 3).

Further, MS Excel and SPSS version 20.0 (Statistical Package for Social Sciences) software were used for analysing the data.

3.10 Chapter Summary

The detailed research methodology of this study is described in this chapter. First, the study's objectives, scope, and limits were discussed. It is then followed by a description of the research design employed to meet the objectives of the study. After that, data collection sources were also clarified with an insight from the preliminary survey that was conducted. Next, research instrument information, considered objective wise variables, sampling design and ultimately statistical tools are also provided that are used to attain the study's objectives.

CHAPTER 4

ASSESSMENT OF FINANCIAL LITERACY

4.0 Introduction

This chapter studies the data and discusses the findings in relation to financial literacy. A holistic approach was applied to measure the level of financial literacy of financial decision-makers of the household. Financial literacy has been measured using this approach by integrating its three possible components, viz., financial knowledge, financial behaviour and financial attitudes. The chapter begins with a detailed discussion of the framework for measuring financial literacy. Then the results relating to the various components that were employed to capture respondents' overall financial literacy were discussed. In addition, findings on comparison between rural and urban areas with regard to financial literacy have also been discussed. The chapter concludes by providing a summary of the results.

4.1. Method for Assessing Financial Literacy

As described in the introduction, the tools designed by the OECD for measuring financial literacy were used in this report. Having developed comprehensive measurement tools for adults and young people, the OECD is at the vanguard of measuring financial literacy worldwide. It has been approved and utilised in numerous nations all over the world. (Goyal et al., 2021) . The OECD has conducted numerous surveys on financial literacy from time to time, and assessing financial literacy has been one of the OECD/INFE's priorities. Research started in 2009 to establish a standard method that could be used to build a reference financial indicator for adults and monitor improvements over time. Subsequently, the toolkit consists of main questionnaires and methodological instructions that have been established and made accessible to a large extent until now.

This study evaluates financial literacy by combining all three components since the OECD explains financial literacy as a blend of three components: financial knowledge, financial behaviour and financial attitude. However, a few more questions were added according to the study's needs. The aggregate individual scores of three components were taken to calculate the overall financial literacy. The total score can, therefore, have a minimum value of 1 and a maximum value of 22. The cumulative score was implicitly weighted since the scores on the three components have different maximum values. Further, in order to measure financial literacy as a proportion of the total population, the OECD recommends a cut off of 15 points out of the maximum aggregated value (NCFE, 2013). Any score less than 15 marks were considered low financial literacy on an aggregated basis

and scores more than 15 marks were considered high financial literacy. In the same way, the financial literacy of the respondents was calculated in this study. The only difference is the ‘maximum values’ of the aggregate as well as individual components. The following parts will address this in-depth.

4.1.1 Financial Knowledge

Financial knowledge is one of the essential components of financial literacy. It is needed to carry out activities such as staying up-to-date on economic and financial landscape news, making a comparison of products and services related to finance, and therefore making financial decisions that are well-informed (OECD, 2017). Various studies show that a higher level of financial knowledge leads to positive results like planning for retirement, participating in the stock market and many more (Chen & Volpe, 1998). Results show that those students whose financial knowledge is high are more likely to make the right choices related to financial matters and maintain financial records in comparison to those with low financial knowledge.

A person who is financially literate would comprehend basic financial concepts. The assessment of the respondents' basic knowledge was carried out on the basis of their ability to understand money's time value, inflation impact on prices, risk-return relationship and diversification, numeracy skills. Therefore, to assess the degree of financial knowledge, the OECD included 8 (eight) questions consisting of the basic concepts listed above and generated a score by calculating each respondent's total number of correct responses. The score may thus have a minimum value of 0 and a maximum value of 8 for financial knowledge and a minimum goal score stand as 6 out of 8 on the knowledge questions (OECD/INFE, 2015). Similarly, the number of accurate responses to the 11 (eleven) financial knowledge questions determines the current study's financial knowledge score. In order to determine the financial knowledge, each question was given equal weight. It ranges between 0 and 11, where 8 is considered to be the minimum target score. The respondent scoring 8 (75%) or more than 8 (75%) was considered to be highly financial knowledgeable and those scoring less than 8 (75%) were considered to be less financial knowledgeable. The minimum score was determined on the same proportion of the OECD’s minimum score. The financial knowledge level estimation method for the current study is discussed below.

The total percentage of the minimum score in OECD scores = Minimum score /Total question

= 6/8

= 75% (Self calculated)

Therefore, the minimum score for the current study would be

= 11(Total questions) × 75% (Percentage of minimum score-OECD)

= 8.25 or 8 minimum score

Table 4.1: Financial Knowledge Score

FK (≥ 8)	Respondent	Percentage
High	304	38
Low	496	62
Total	800	100

Source: *Primary*

Fig: 4.1 Pie Chart of Financial Knowledge Score

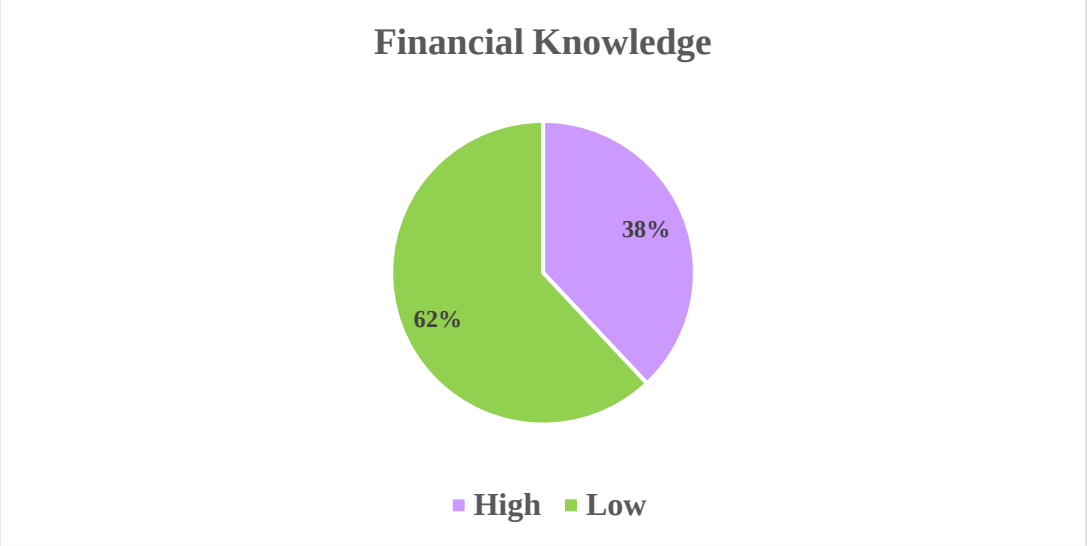


Table 4.1 shows the overall financial knowledge of all respondents. It depicts that the majority of respondents scored less in financial knowledge, 62% out of the total sample scored less than the minimum score i.e., 8 points and falls under the low financial knowledge category. That stands for around one-third of the whole sample. Only 38% of sample respondents have scored high on financial knowledge questions.

4.1.2 Financial Behaviour

This section deals with the importance of financial behaviour and evidence regarding the financial behaviour of the respondents. Financial behaviour is one of the essential components of financial literacy. In both the short and long run, it is the behaviour of respondents that ultimately shape their financial circumstances and well-being. Many who are financially literate display constructive results, such as budget planning and the creation of a financial safety net. Many who are not or less financially literate, on the other hand, are more likely to abuse their finances, such as choosing the wrong financial product without shopping around, taking extra credit, putting off bill payments, etc. These habits can adversely affect one's financial well-being. Therefore, evaluating the financial conduct of the respondents is important. Some may be financially intelligent, but they may not apply their knowledge into action in order to regulate their behaviour. Therefore, we concentrate on a wide range of behaviours in this section, with emphasis on those that can increase or decrease financial well-being (Atkinson & Messy, 2012). The OECD (OECD/INFE, 2015) scoring has been followed to obtain the financial behaviour level, the only difference being that few questions were added and the minimum score was measured in the same proportion as the OECD minimum score. The OECD take a maximum value of 9 to measure financial behaviour with a score of 6 or more being considered relatively high, and a score less than 6 being deemed low (OECD/INFE, 2015). With regard to the current study the total financial behaviour score was calculated by integrating the data on 17 items, so the maximum score a respondent can achieve is 17. Out of 17, 16 questions were based on a 5-point Likert scale and 1 question was based on a qualitative scale. The minimum score was set at 11 points, so respondents scoring 11 points or more than 11 points were considered as having good financial behaviour. The respondent who scored less than 11 were deemed to have adverse financial behaviour. The financial behaviour level estimation method for the current study is discussed below.

The total percentage of the minimum score in OECD scores = Minimum score / Total question

= 6/9

= 67%

Therefore, the minimum score for the current study would be:

= 17 (Total questions) × 67% (Percentage of minimum score-OECD)

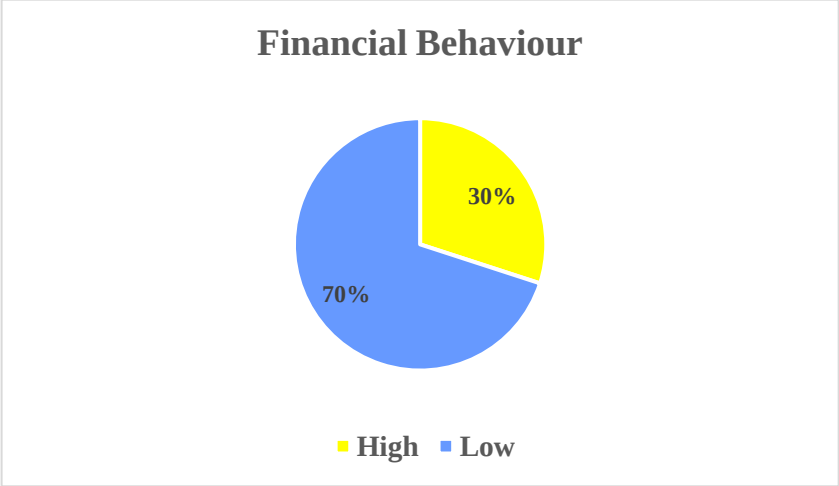
= 11.39 or 11 minimum score

Table 4.2: Financial Behaviour Score

FB (≥11)	Respondent	Percentage
High	244	30
Low	556	70
Total	800	100

Source: *Primary Survey*

Fig: 4.2 Pie Chart of Financial Behaviour Score



Overall performance on financial behaviour's questions is shown in table 4.2. The majority of respondents had poor financial behaviour, as can be seen in the table above. The result is quite similar to the financial knowledge result, only one-third of the sample (30%) have performed well in the financial behaviour segment.

4.1.3 Financial Attitude

The concept of financial literacy in the OECD/INFE recognises that the persons, despite of having sufficient knowledge and ability to act in a specific way, their attitude will affect their decision whether to act or not. Ultimately, the way one thinks or feels about money determines one's behaviour towards it. Financial attitude is considered as a vital component of financial literacy, for those individuals who have a positive attitude towards money or finance are most likely to have positive financial behaviour. For example, if a person has a negative attitude toward saving for the future, then he or she will be less

motivated to save. Similarly, it is unlikely that those who retain their short-term interests in the priority list can save or make long-term financial plans (Atkinson & Messy, 2012).

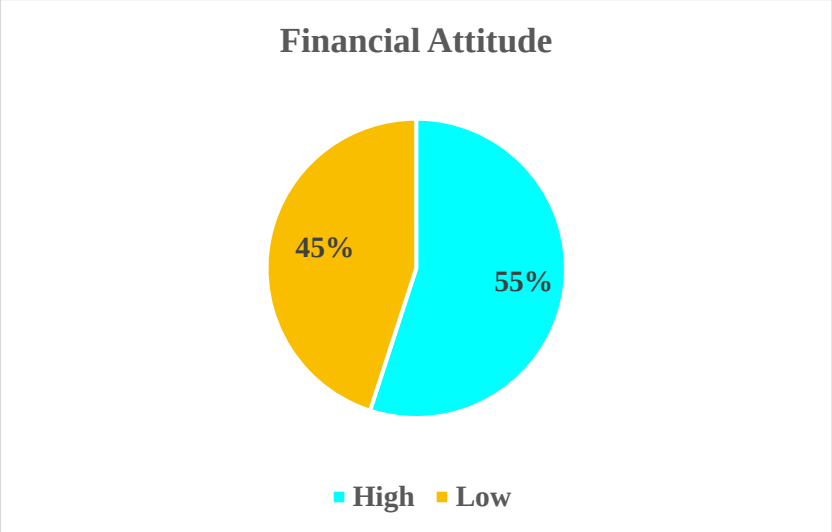
The attitude score was measured across three attitude questions as the average response i.e., the sum of the values for the three statements divided by 3 (total number of questions). Therefore, the financial attitudes score goes from 1 to 5 (OECD / INFE, 2018) and the minimum target score was set as more than 3 (OECD, 2015). In order to test respondents' attitudes towards finance, the current study used 3 OECD questions along with additional questions from relevant studies. Here, the participant's attitude towards money and their future planning was highlighted. All the answers to each financial attitude question were added together to create a score and then divided by 13, i.e., the total number of questions. To get their temperament, the respondents were questioned if they agreed or disagreed with particular statements. The maximum score was set at 5 and the minimum score was more than 3 points, following the OECD way of scoring. Those who rate higher than 3 have a good financial attitude and vice versa.

Table 4.3: Financial Attitude Score

FA (>3)	Respondent	Percentage
High	441	55
Low	359	45
Total	800	100

Source: *Primary Survey*

Fig: 4.3 Pie Chart of Financial Attitude Score



The overall result of financial attitude performance was comparatively better than financial knowledge and behaviour. Around 45 % (n=359) of the respondent's performance was slightly low in financial attitude. 55 % (n=441) of respondents have a positive attitude toward their money.

4.1.4 Overall Financial Literacy Score

Financial literacy, according to the OECD, is the combination of financial knowledge, attitude, and behaviour therefore three components have been explored. This provides a clear measure that takes account of the different facets of financial literacy, including future financial planning, financial product selection, and day-to-day management of income.

The overall financial literacy scoring has been adopted in line with the OECD recommendations (OECD/INFE, 2015). As a total of the three aforementioned scores viz., financial knowledge (8), financial behaviour (9) and financial attitudes (5), the overall financial literacy score was obtained. Any value of between 1 and 22 can be taken. If required, by multiplying by 100/22, it could be normalised to 100 for reporting.

The three-dimensional scores were summarised in order to determine financial literacy. The maximum score that could have been attained by a respondent was 41, i.e., financial knowledge (11) financial behaviour (17) financial attitude (13). Therefore, a minimum value of 1 and a maximum value of 41 was used for the score. The cumulative score was implicitly weighted since the three scores had different maximum values. The respondents were divided into two groups based on their level of financial literacy: high and low. The minimum score is 22, which is a total of minimum scores of three dimensions viz., 8 in financial knowledge, 11 in financial behaviour and 3 in financial attitude. Those scoring 22 or more were regarded as highly financial literate while scoring less than 22 suggests low financial literacy for the respondent. The minimum score for overall financial literacy of the current study have been calculated as below:

According to OECD the minimum score for overall financial literacy is the sum of the minimum scores for all components viz., financial knowledge, financial behaviour and financial attitude i.e., 6 (FK) + 6 (FB) +3 (FA) =15

Similarly, the minimum overall financial literacy for the current study will be = 8 (FK) +11(FB) +3 (FA) = 22

Table 4.4: Financial Literacy Score

FL (≥ 22)	Respondent	Percentage
High	213	27
Low	587	73
Total	800	100

Source: *Primary Survey*

Fig: 4.4 Pie Chart of Financial Literacy Score

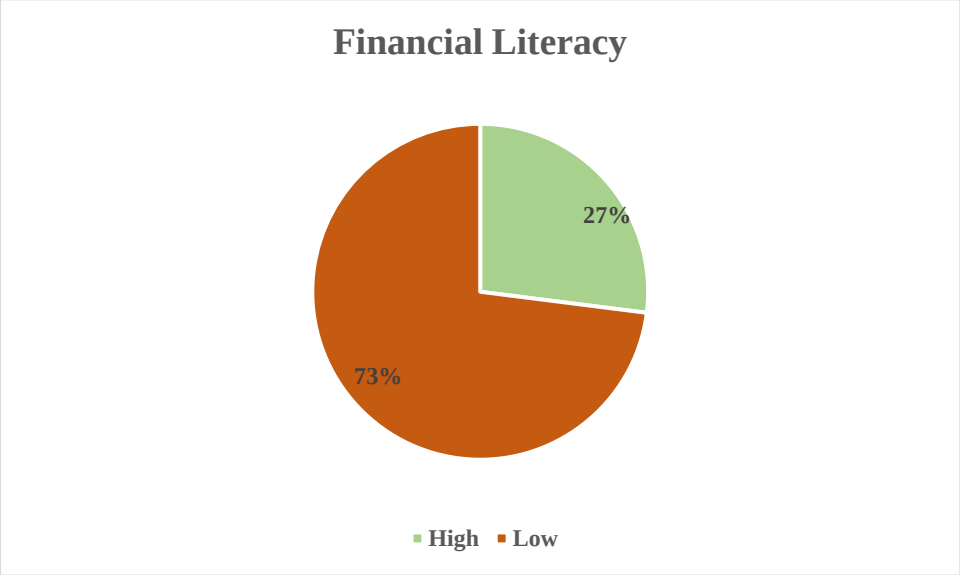


Table 4.4 shows that overall financial literacy in the study area is low. The findings show that 27% of respondents fell into the high level of financial literacy group which means that they are financially competent and have good financial knowledge, attitude and behaviour. Nevertheless, the majority of respondents (73%) were found to have a low level of financial literacy. This implies that the financial understanding, attitude and action that is needed for their financial well-being are poorly fitted.

The overall result clearly indicates that respondents have a low level of financial literacy. The majority of respondents did not perform well on three-dimensional problems. This poses a major problem and needs to be tackled. The interrelationship between the three dimensions may be one of the key reasons for this finding. They are interlinked and reliant on each other, which influences their overall financial literacy. Financial conduct, for instance, is influenced by the individual's attitude. If an individual's financial mindset is not in favour of excess saving and if he/she thinks charity etc. is better, then their actions will be influenced immediately, i.e., the saving will be low regardless of how competent

he/she is. However, the person may not be financially illiterate. It is, therefore, necessary to find financial knowledge, attitude and behaviour to measure an individual's level of financial literacy. Again, some people have a favourable attitude toward money and wish to invest, but they lack the financial resources to do so, therefore their financial behaviour gets negatively affected. And, since they lack money and do not grasp its significance, they are uninterested in learning about financial products and services.

4.2 Financial Literacy Performance in Urban and Rural Area:

For the purposes of this study, both areas were given equal weightage. Out of a total sample of 800, 400 samples were selected from urban areas and 400 samples were selected from rural areas. The results of the overall performance of financial literacy in both areas are presented below.

Table 4.5: Area and Financial Knowledge

Level of Financial Knowledge	Rural	Percentage	Urban	Percentage	Total	Percentage
High	121	30	183	46	304	38
Low	279	70	217	54	496	62
Total	400	100	400	100	800	100

Source: *Primary Survey*

Fig: 4.5 Bar Chart of Area and Financial Knowledge

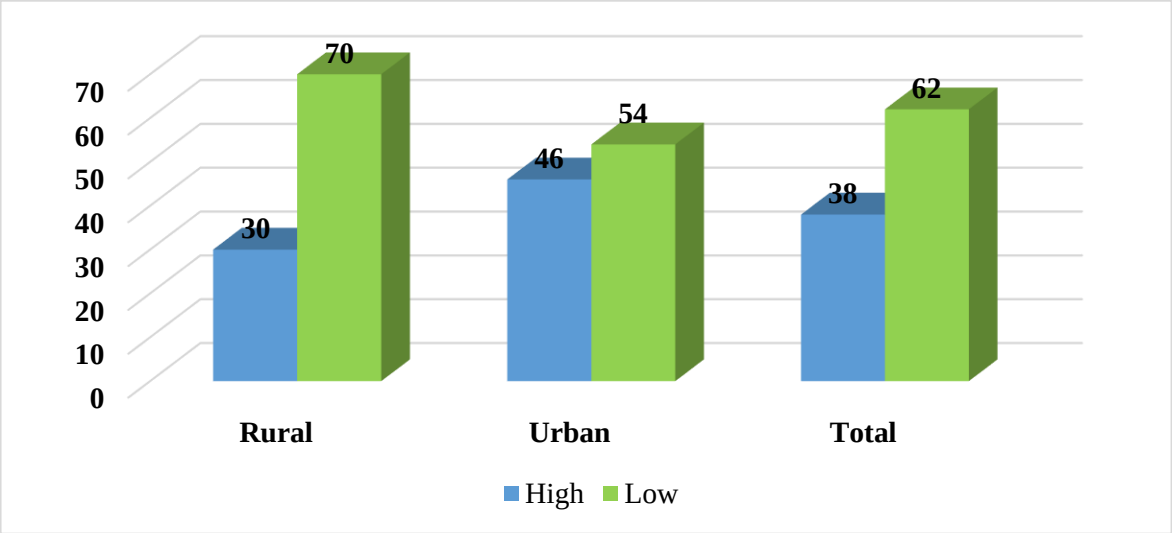


Figure 4.5 reflects respondents' financial knowledge in urban and rural areas in Arunachal Pradesh. The result shows that financial knowledge is poor in both areas. However, in urban areas, the percentage of respondents with high financial knowledge is more than in

rural areas. It is 46% in urban and 30% in rural areas. This result is in line with the national average of financial knowledge in both areas. At the national level, 55% of urban and 45% of the rural population have high financial knowledge according to the Financial Literacy and Inclusion Survey (NCFE-FLIS) (NCFE, 2019). It was also seen from Table 4.5, that 70% of the respondents in rural areas have low financial knowledge whereas it is 54% in urban areas.

Table 4.6: Area and Financial Behaviour

Level of Financial Behaviour	Rural	Percentage	Urban	Percentage	Total	Percentage
High	87	22	157	39	244	31
Low	313	78	243	61	556	70
Total	400	100	400	100	800	100

Source: *Primary Survey*

Fig: 4.6 Bar Chart of Area and Financial Behaviour

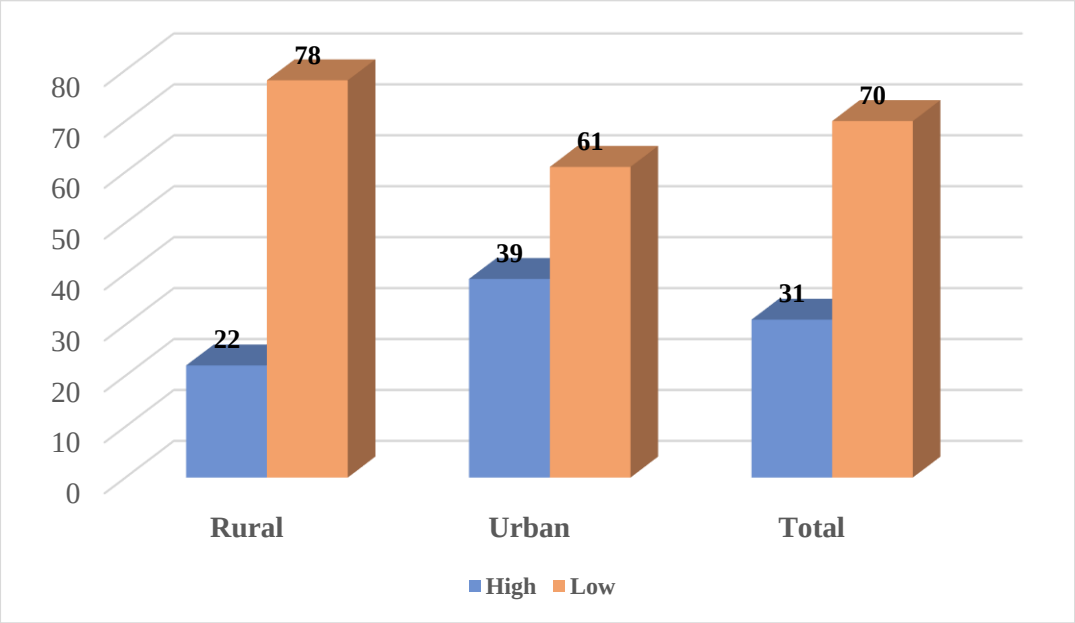


Table 4.6 shows the financial behaviour of respondents in urban and rural areas. The table clearly shows that the majority of respondents had poor financial behaviour in both areas. While 78% of respondents in the rural area have a low level of financial behaviour, it is 61% in urban areas. This shows that overall financial behaviour is low, however rural areas have more respondents with a low level of financial behaviour as compared to the urban area. Out of the total respondent, 22% in rural and 39% in urban areas possess a high level of financial behaviour. The findings show that the majority of respondents who live in rural areas have poor financial behaviour compared to those who live in urban areas. A

similar result can be seen among the urban and rural populations of India. According to the survey (NCFE-FLIS), the national average of financial behaviour is lower in rural areas than in urban areas. 57% of the urban population and 51% of the rural population were found to have high financial behaviour (NCFE, 2019). However, the national average of high financial behaviour in both areas is more than 50%, unlike the result of the present study, where not even 50% of the total sample has high financial behaviour in both areas.

Table 4.7: Area and Financial Attitude

Level of Financial Attitude	Rural	Percentage	Urban	Percentage	Total	Percentage
High	216	54	225	56	441	55
Low	184	46	175	44	359	45
Total	400	100	400	100	800	100

Source: *Primary Survey*

Fig: 4.7 Bar Chart of Area and Financial Attitude

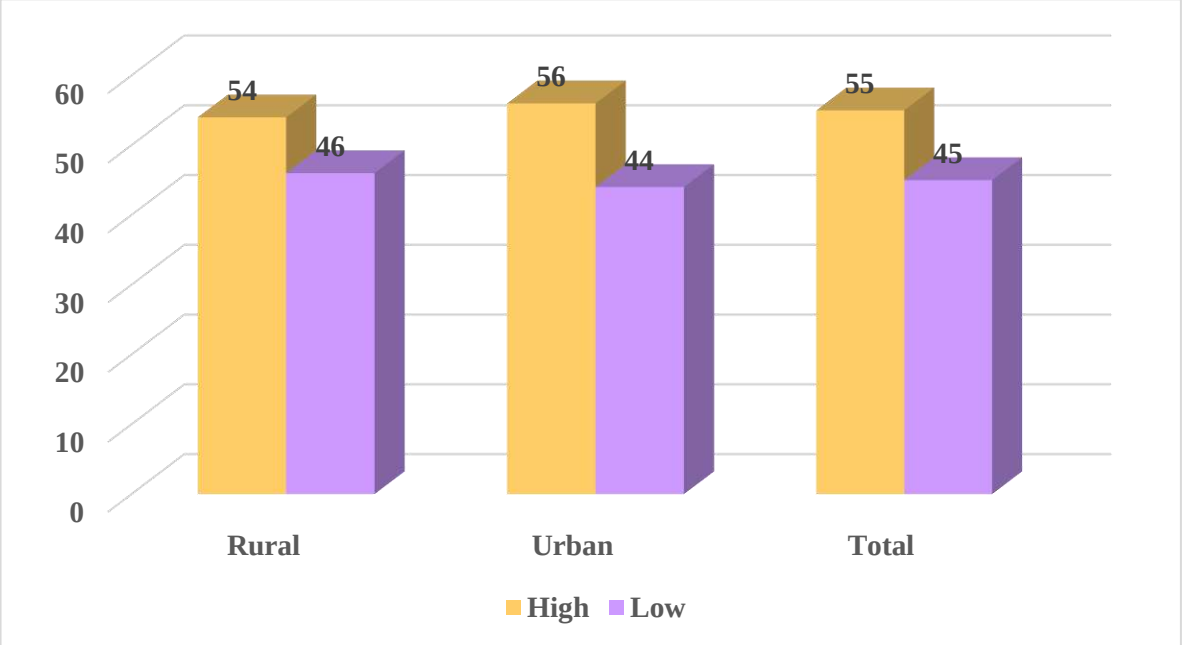


Table 4.7 shows the financial attitude ratings of respondents in urban and rural areas of Arunachal Pradesh. The result indicates that, unlike other components of financial literacy (i.e., financial knowledge and financial behaviour), overall financial attitude performance is good in rural areas. 54% of rural respondents have scored high in financial attitude, whereas 56% in urban areas have scored high in financial attitude. This shows that the overall financial attitude of respondents is somewhat better in both areas. In contrast to the results of the present study, it is seen that the national average of financial attitudes in both areas is high. The rural population has a better financial attitude than the urban population.

The survey shows that 89% of the rural population and 88% of the urban population have a high financial attitude (NCFE, 2019).

Table 4.8: Area and Financial Literacy

Level of Financial Literacy	Rural	Percentage	Urban	Percentage	Total	Percentage
High	68	17%	145	36%	213	27%
Low	332	83%	255	64%	587	73%
Total	400	100%	400	100%	800	100%

Source: *Primary Survey*

Fig: 4.8 Bar Chart of Area and Financial Literacy

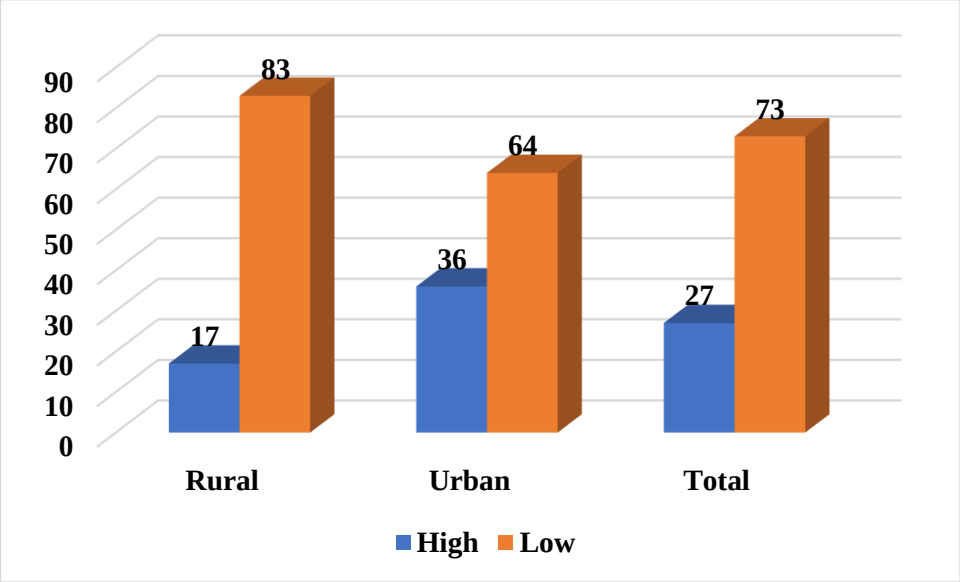


Figure 4.8 suggests that financial literacy is not very high in both the rural and urban areas of Arunachal Pradesh. It is 17% in rural and 36% in urban areas. However, when both areas were compared, the rural area performed poorer than urban, in rural only 17% of the respondents have high financial literacy, whereas in urban 36% of respondents have high financial literacy which is 19% more than rural areas. This result is consistent with the national average in both areas of financial literacy. According to the NCFE-FLIS, only 33% of the urban population and 24% of the rural population have high financial behaviour at the national level (NCFE, 2019). This demonstrates that financial literacy is low in both Arunachal Pradesh and at the national level. This result is a matter of concern.

4.3 Chapter Summary

From the above discussions, it may be inferred that the overall financial literacy level is low among the respondents. When a comparison was made between rural and urban, it was also found that rural people have less financial literacy than urban people.

CHAPTER 5

SOCIO-ECONOMIC AND DEMOGRAPHIC FACTORS AND FINANCIAL LITERACY

5.0 Introduction

The study's first objective was to assess the financial literacy of sample respondents of Arunachal Pradesh using the OECD methodology, which was covered in the previous chapter. The chapter also discussed the state of financial literacy in rural and urban areas of three districts in Arunachal Pradesh. The present chapter describes and discusses the study's second objective, which was to examine the association between financial literacy and socioeconomic and demographic factors of the sample respondents. Cross tabulation and the chi-square test were used to analyse the data in order to achieve the above objective. The hypotheses were tested to see if there was a link between financial literacy and socioeconomic and demographic factors, and the results are explained in the sections below. The chapter concludes by summarizing all of the findings.

5.1 Cross Tabulation and Test of Significance

In this section, Cross tabulation and Chi-square tests were carried out to determine the association between the financial literacy level and socio-economic demographic variables of the sample respondents. Cross tabulation is most commonly used to explain two or more variables at the same time. It assists us in comprehending the relationship between two variables (Malholtra & Dash, 2016). And "Chi-square is used to test the statistical significance of the observed association in a cross-tabulation. It assists in determining whether a systematic association exists between the two variables" (Malholtra & Dash, 2016, p-453). Nevertheless, Chi-square does not reveal the strength of association between variables in the cross-tabulation. Thus, the Cramer's V, one of the measures of indices of the agreement was used to measure the strength of this association. The value of V ranges from 0 to 1. "A large value of V merely indicates a high degree of association," (Malholtra & Dash, 2016, p.455). According to Akoglu (2018), a value greater than 0.25 (>0.25) is considered as a very strong relationship, a value greater than 0.15 (>0.15) is considered as a strong relationship, a value greater than 0.10 (>0.10) is considered as a moderate relationship, greater than 0.05 (>0.05) is considered as a weak relationship and greater than 0 (>0) is considered as no or weak relationship.

Various explainable variables used for the Chi-square test were area, gender, marital status, education, age, category, occupation, respondent's monthly income, household monthly income, the responsibility of money management, additional income, nature of

workplace activity, household size, number of dependents and number of earning member. Cross tabulations and hypotheses testing are given in the following sections:

5.1.1 Association Between Area and Level of Financial Literacy

The cross-tabulation of respondents' dwelling areas and their level of financial literacy is shown in table 5.1 and figure 5.1. The findings suggested that 73.3% of the entire sample has low financial literacy, with the majority of them belonging to the rural areas (83%) and 63.7% belonging to the urban areas. Out of the total sample, only 26.6% of respondents had a high level of financial literacy, with the majority (36.2%) belonging to the urban areas and 17% to rural areas.

A Chi-square test was conducted to study the relationship between the area and the level of financial literacy of the respondents. The hypothesis for the data shown in Table 5.1 for the Chi-square test is shown as follow:

H_0: There is no significant association between area and the levels of financial literacy.

H_1: There is a significant association between area and the levels of financial literacy.

Table 5.1: Cross Tabulation of Area and Financial Literacy

Financial Literacy Levels	Area		Total
	Rural	Urban	
High	68 (17.0)	145 (36.2)	213 (26.6)
Low	332 (83.0)	255 (63.7)	587 (73.3)
Total	400 (100)	400 (100)	80 (100)

Source: *Primary Survey*
Note: *Figures in parenthesis shows the percentage of respondents.*

Fig. 5.1 Area and Financial Literacy

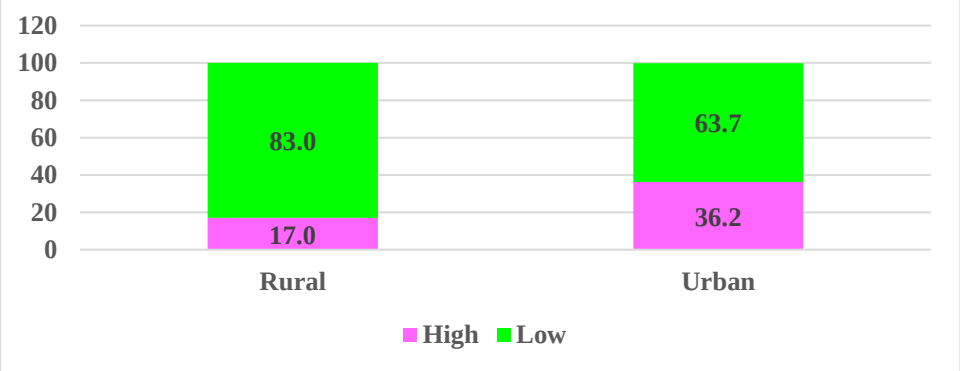


Table 5.2 Chi-Square Test

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	37.936[a]	1	.000		
Continuity Correction[b]	36.957	1	.000		
Likelihood Ratio	38.606	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	37.889	1	.000		
Numbers of Valid Cases	800				

Table 5.3 Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.218	.000
	Cramer's V	.218	.000
	Contingency Coefficient	.213	.000
Numbers of Valid Cases		800	

Table 5.2 shows the results of the Chi-square test. The null hypothesis was rejected since the p-value (0.000) was less than the significance level $\alpha = 0.05$, indicating that there was a significant relationship between respondents' living area and their level of financial literacy.

Since Chi-square does not demonstrate the strength of association in the cross-tabulation between two variables. Therefore, Cramer's V was used to measure the degree of association. Table 5.3 shows the degree of association between the two variables. It was seen that Cramer's V is 0.218 hence, the relationship is strong

5.1.2 Association between Gender and Level of Financial Literacy

The cross-tabulation of respondents' gender and financial literacy levels are shown in Table 5.4 and Figure 5.2. According to the findings, 78.1% of respondents with low financial literacy were female, whereas 71% were male. Also, males accounted for 28.9% of total respondents with high financial literacy, while females accounted for 21.9%.

The association between the gender of the respondents and their level of financial literacy was investigated using the Chi-square test. The hypothesis for the data shown in Table 5.4 for the Chi-square test is shown as follow:

H_0: There is no significant association between gender and the level of financial literacy.

H_1: There is a significant association between gender and the level of financial literacy.

Table 5.4 Cross Tabulation of Gender and Financial Literacy

Level of Financial Literacy	Gender		Total
	Male	Female	
High	155 (28.9)	58 (21.9)	213 (26.6)
Low	380 (71.0)	207 (78.1)	587 (73.4)
Total	535 (100)	265 (100)	800 (100)

Source: *Primary Survey*
Note: *Figures in parenthesis shows the percentage of respondents.*

Fig. 5.2 Gender and Financial Literacy

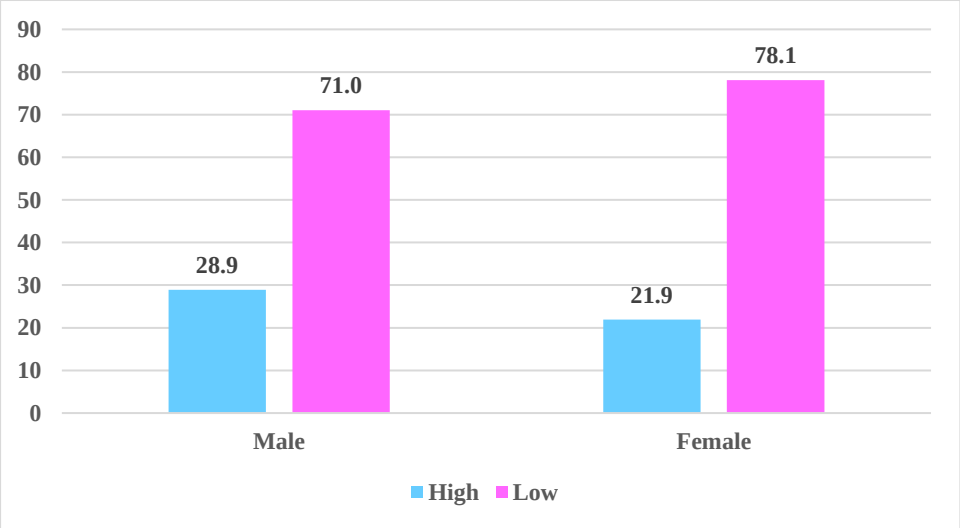


Table 5.5 Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.554[a]	1	.033		
Continuity Correction[b]	4.198	1	.040		
Likelihood Ratio	4.656	1	.031		
Fisher's Exact Test				.034	.019
Linear-by-Linear Association	4.548	1	.033		
Numbers of Valid Cases	800				

Table 5.6 Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.075	.033
	Cramer's V	.075	.033
	Contingency Coefficient	.075	.033
Numbers of Valid Cases		800	

Table 5.5 shows that the significance value of Chi-square is 0.033 which is less than the chosen significance level of $\alpha = 0.05$. Therefore, the null hypothesis was rejected and it was concluded that there is a significant association between the gender of respondents and their level of financial literacy. From below Table 5.6, it was seen that the degree of association between these two variables is .075 which is weak.

5.1.3 Association between Marital Status and Level of Financial Literacy

Table 5.7 and Figure 5.3 demonstrate the crosstabulation of respondents' marital status and their level of financial literacy. The results show that the majority of separated/widow/widower respondents (88.5%) had low financial literacy, followed by married respondents (73.6%) and unmarried respondents (65.9%). Unmarried respondents accounted for 34.8% of all respondents with high financial literacy, followed by married and separated/widow/widower respondents, who accounted for 26.4% and 11.5%, respectively.

A Chi-square test was conducted to find out the relationship between the marital status of respondents and their level of financial literacy. The hypothesis for the data shown in Table 5.7 for the Chi-square test is shown as under:

H_0: There is no significant association between marital status and the levels of financial literacy.

H_1: There is a significant association between marital status and the levels of financial literacy.

Table 5.7 Cross Tabulation of Marital Status and Financial Literacy

Level of Financial Literacy	Marital status			Total
	Married	Unmarried	Separated/ Widow/ Widower	
High	186 (23.3)	24 (3.0)	3 (0.4)	213 (26.6)
Low	519 (64.9)	45 (5.6)	23 (2.9)	587 (73.4)
Total	705 (88.1)	69 (8.6)	26 (3.3)	800 (100)

Source: *Primary Survey*
Note: *Figures in parenthesis shows the percentage of respondents.*

Fig. 5.3 Marital Status and Financial Literacy

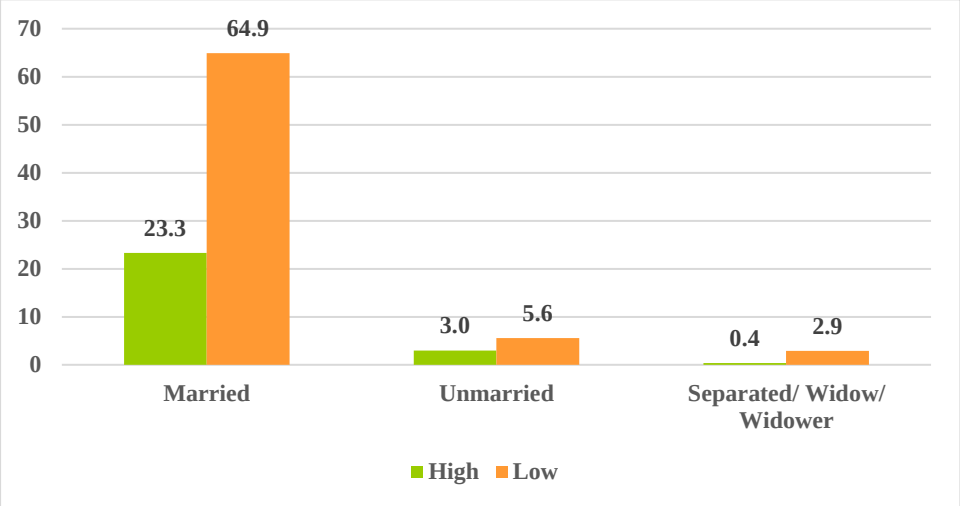


Table 5.8 Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.401[a]	2	.067
Likelihood Ratio	5.827	2	.054
Linear-by-Linear Association	.162	1	.687
Numbers of Valid Cases	800		

As it is evident from Table 5.8 the output of the Chi-square test shows that the P-value (0.067) is more than the significance level i.e., $\alpha = 0.05$. Therefore, the null hypothesis was not rejected and the conclusion was drawn that there is no significant association between the marital status of the respondent and the level of financial literacy. In other words, respondents' financial literacy is unaffected by their marital status. The value of Cramer's V was not be considered as no significant associations were found between the two variables.

5.1.4 Association between Level of Education and Level of Financial Literacy

A cross-tabulation of the association between financial literacy and educational attainment of the sample respondents are shown in Table 5.9 and Figure 5.4. According to the table, out of total respondents, 73.4% had inadequate financial literacy, while 26.6% had a good level of financial literacy. Financial literacy was highest among undergraduates, postgraduates, and those with a higher education qualification, accounting for 48.8% and 45.3% of all respondents, respectively.

The Table also shows that the majority of respondents with no formal education with (96.1%), who had studied up to primary level (86.4%), secondary level (76.4%) and senior secondary (68.6%) had low financial literacy.

A Chi-square test was conducted to study the relationship between the level of education of the respondents and their level of financial literacy. The hypothesis for the data shown in Table 5.9 for the Chi-square test is shown as under:

H_0: There is no significant association between education level and the levels of financial literacy.

H_1: There is a significant association between education level and the levels of financial literacy.

Table 5.9 Cross Tabulation of Level of Education and Financial Literacy

Level of Financial Literacy	Level of education						Total
	Primary	Secondary	Senior Secondary	Under Graduate	Post Graduate and above	No Formal Education	
High	18 (13.6)	34 (23.6)	37 (31.4)	45 (48.4)	73 (45.3)	6 (3.9)	213 (26.6)
Low	114 (86.4)	110 (76.4)	81 (68.6)	48 (51.6)	88 (54.7)	146 (96.1)	587 (73.4)
Total	132 (100)	144 (100)	118 (100)	82 (100)	161 (100)	152 (100)	800 (100)

Source: *Primary Survey*
Note: *Figures in parenthesis shows the percentage of respondents.*

Fig. 5.4 Level of Education and Financial Literacy

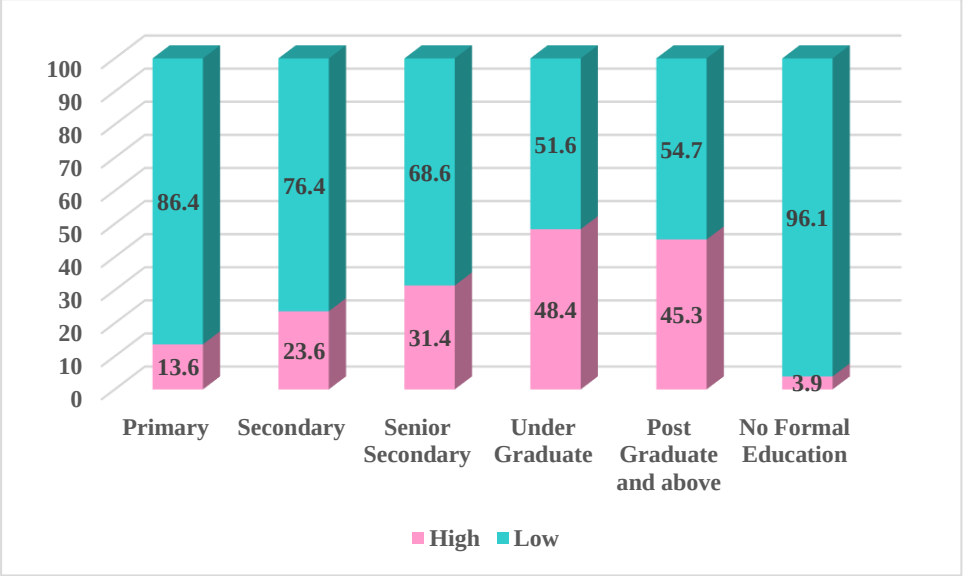


Table 5.10 Chi-Square Tests

	Value	df	Sig.
Pearson Chi-Square	104.848[a]	5	.000
Likelihood Ratio	116.687	5	.000
Linear-by-Linear Association	.504	1	.478
Numbers of Valid Cases	800		

Table 5.11 Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.362	.000
	Cramer's V	.362	.000
	Contingency Coefficient	.340	.000
Numbers of Valid Cases		800	

Table 5.10 reveals that the P-value is 0.000 which is lower than the significance level i.e., α = 0.001 indicating the null hypothesis is rejected. This means that there is a significant association between the level of education and the level of financial literacy of the sample respondents. These variables are not independent of each other. Table 5.11 reveals a very strong degree of association between the variables mentioned above, with Cramer's value 0.36 significant at 0.000.

This conclusion was supported by a number of studies, which explains that people with a higher level of education had more exposure to and access to financial information (Bharucha, 2017; Caroline, Potrich, Vieira, and Maria, 2016). Individuals who studied up to college or university are more likely to be financially savvy than those with a lower level of education (Thara et al., 2014).

5.1.5 Association between Age and Level of Financial Literacy

Table 5.12 and Figure 5.5 indicate the cross-tabulation of respondents' age and their level of financial literacy. As previously indicated, the number of respondents with high financial literacy are less; nonetheless, the results suggest that respondents aged 26-35 (30.4%), 36-45 (28.4%), and 46-55 (25%) had the highest financial literacy among this group. When it comes to low financial literacy, the respondents aged 56 and above had the lowest financial literacy (87.9%), followed by the respondents aged 18-25 years (82.8%).

A Chi-square test was conducted to examine the relationship between the age of the respondent and their level of financial literacy. The hypothesis for the data shown in Table 5.12 for the Chi-square test is shown as under:

H_0: There is no significant association between age and the levels of financial literacy.

H_1: There is a significant association between age and the levels of financial literacy.

Table 5.12 Cross Tabulation of Age and Financial Literacy

Level of Financial Literacy	Age					Total
	18-25	26-35	36-45	46-55	56 and above	
High	10 (17.2)	93 (30.4)	71 (28.4)	32 (25.0)	7 (12.1)	213 (26.6)
Low	48 (82.8)	213 (69.6)	179 (71.6)	96 (75.0)	51 (87.9)	587 (73.4)
Total	58 (100)	306 (100)	250 (100)	128 (100)	58 (100)	800 (100)

Source: *Primary Survey*
Note: *Figures in parenthesis shows the percentage of respondents.*

Fig. 5.5 Age and Financial Literacy

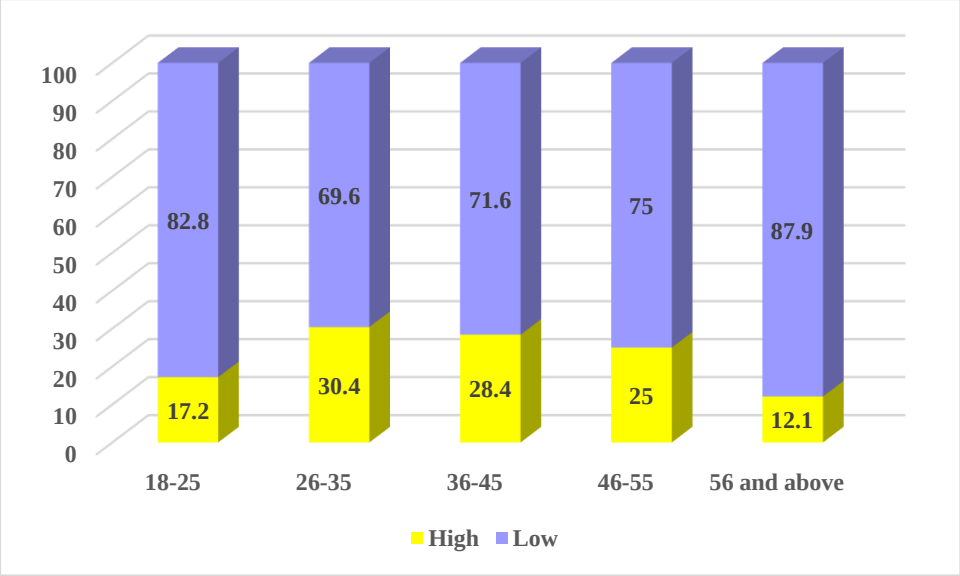


Table 5.13 Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.704[a]	4	.020
Likelihood Ratio	12.979	4	.011
Linear-by-Linear Association	2.290	1	.130
N of Valid Cases	800		

Table 5.14 Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.121	.020
	Cramer's V	.121	.020
	Contingency Coefficient	.120	.020
N of Valid Cases		800	

The result in the above table 5.13 shows that the P-value of Chi-square is 0.02 which is found to be less than the significance level $\alpha = 0.05$. Hence, it can be concluded that there is a significant association between the age of the respondents and their level of financial literacy. It means that the null hypothesis was rejected and both the variables are not independent of each other. Cramer's V value is significant at 0.020 and the degree of association between the mentioned variables is 0.121 which means the relationship is moderate.

5.1.6 Association Between Category and Level of Financial Literacy

Table 5.15 and Figure 5.6 shows a cross-tabulation of the respondent's category and their level of financial literacy. According to the results, the majority (92.3%) of respondents

who fall Below the Poverty Line (BPL), had low financial literacy. When comparing respondents from both categories, Above Poverty Line (APL) and Below Poverty Line (BPL), it was found that APL respondents had a higher proportion of financial literacy than BPL respondents, with 35.7% and 7.7%, respectively.

To examine the link between the category of the sample respondents and their level of financial literacy, a Chi-square test was performed. The hypothesis for the data shown in Table 5.15 for the Chi-square test is shown as below:

H_0: There is no significant association between category and the levels of financial literacy.

H_1: There is a significant association between category and the levels of financial literacy.

Table 5.15 Cross Tabulation of Category and Financial Literacy

Level of Financial Literacy	Category		Total
	BPL	APL	
High	20 (7.7)	193 (35.7)	213 (26.6)
Low	239 (92.3)	348 (64.3)	587 (73.4)
Total	259 (100)	541 (100)	800 (100)

Source: *Primary Survey*
Note: *Figures in parenthesis shows the percentage of respondents.*

Fig. 5.6 Category and Financial Literacy

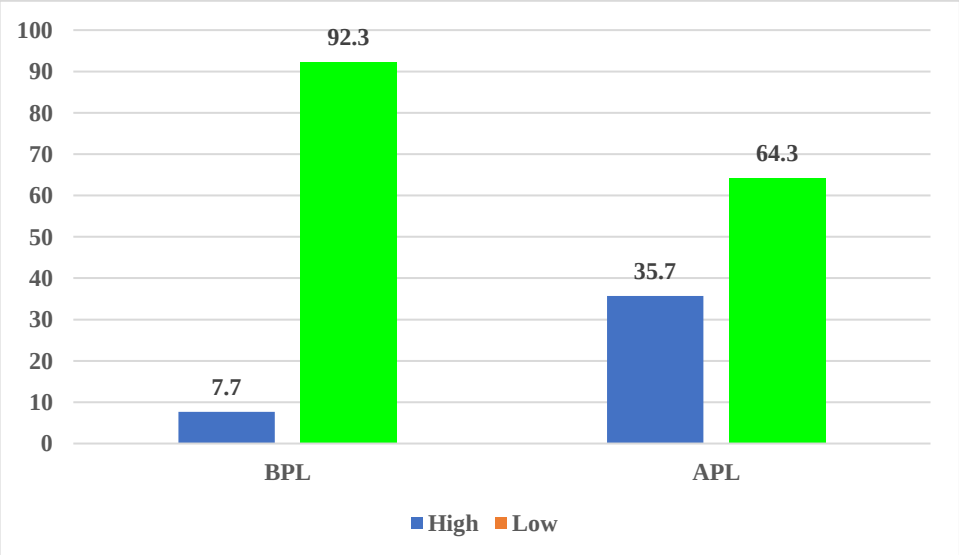


Table 5.16 Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	70.051[a]	1	.000		
Continuity Correction[b]	68.628	1	.000		
Likelihood Ratio	81.383	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	69.964	1	.000		
Numbers of Valid Cases	800				

Table 5.17 Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.296	.000
	Cramer's V	.296	.000
	Contingency Coefficient	.284	.000
N of Valid Cases		800	

The result in the table 5.16 shows that the P-value of Chi-square is 0.00 which is found to be less than the significance level $\alpha = 0.05$. Hence, it can be concluded that there is a significant association between the category of respondents and their level of financial literacy. It means that the null hypothesis was rejected and both the variables were not independent of each other. Cramer's V value is significant at 0.000 and the degree of association between two variables is 0.29 which means the relationship is very strong.

5.1.7 Association between Occupation and Level of Financial Literacy

Table 5.18 and Figure 5.7 presents a cross-tabulation of respondents' occupations and their financial literacy levels. The majority of respondents in the high financial literacy group (35.7%) were salaried, followed by professionals (30.8%), students (30%), and self-employed (28.2%). The daily wager (6.7%), the unemployed (7.7%), and other occupations (8.6%) had the lowest rates of high financial literacy. Similarly, the daily wager (93.3%), unemployed (92.3%), and other occupations (91.4%) had the highest numbers of respondents in the low financial literacy group.

A Chi-square test was performed to study the relationship between the age of the respondents' age and their level of financial literacy. The hypothesis for the Chi-square test for the data in table 5.18 is given below:

H_0: There is no significant association between occupation and the levels of financial literacy.

H_1: There is a significant association between occupation and the levels of financial literacy.

Table 5.18 Cross Tabulation of Occupation and Financial Literacy

Level of Financial Literacy	Occupation							Total
	Unemployed	Professional	Student	Self-employed	Daily Wager	Salaried	Others	
High	3 (7.7)	4 (30.8)	3 (30.0)	48 (28.2)	3 (6.7)	141 (35.7)	11 (8.6)	213 (26.6)
Low	36 (92.3)	9 (69.2)	7 (70.0)	122 (71.8)	42 (93.3)	254 (64.3)	117 (91.4)	587 (73.3)
Total	39 (100)	13 (100)	10 (100)	170 (100)	45 (100)	395 (100)	128 (100)	800 (100)

Fig. 5.7 Occupation and Financial Literacy

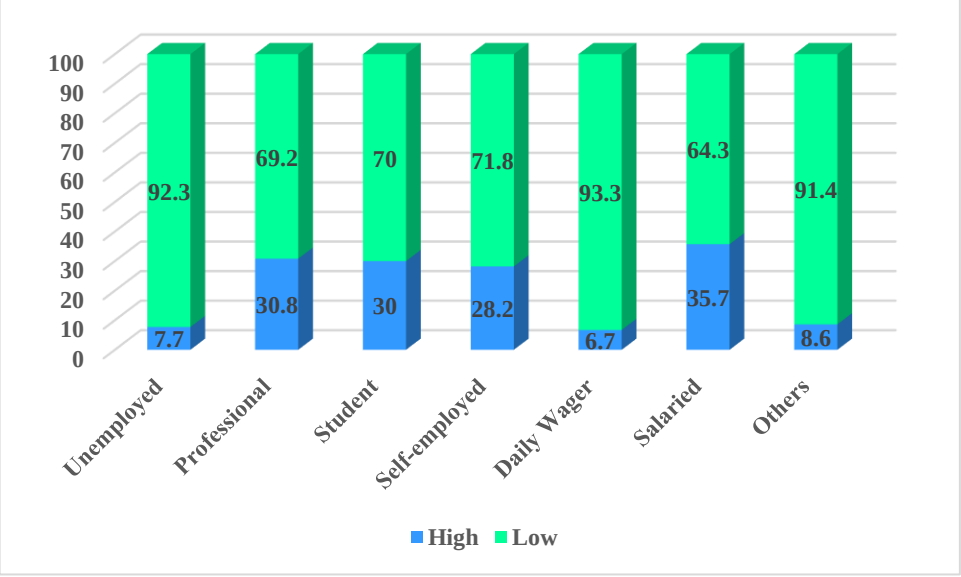


Table 5.19 Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	54.669[a]	6	.000
Likelihood Ratio	63.551	6	.000
Linear-by-Linear Association	.581	1	.446
Number of Valid Cases	800		

Table 5.20 Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.261	.000
	Cramer's V	.261	.000
	Contingency Coefficient	.253	.000
Number of Valid Cases		800	

The result in the Table 5.19 shows that the P-value of Chi-square is 0.00 which is found to be less than the significance level $\alpha = 0.05$. Hence, it can be concluded that there is a significant association between the occupation of respondents and their level of financial literacy. It means the null hypothesis was rejected and both the variables were not independent of each other. Table 5.20 shows that Cramer's V value is significant at 0.000 and the degree of association between two variables is 0.26 which mean the relationship is very strong.

5.1.8 Association between Respondent's Monthly Income and Level of Financial Literacy

Table 5.21and Figure 5.8 demonstrate the cross-tabulation of respondents' monthly income and their financial literacy. It was revealed from the result that majority (48.7%) of respondent in the high financial literacy group have a monthly income of 50,001 and above, followed by Rs. 40,001-50,000 income group (48.4%), Rs. 30,001-40,000 (42.9%), Rs. 20,001-30,000 (26.7%), Rs. 10,001-20,000 (15.7%) and up to Rs. 10,000 (10.7%). It was interesting to see that the proportion of respondents with high financial literacy increased as their income level improved. In other words, higher-income respondents were more financially literate than lower-income respondents. Similarly, the lowest financial literacy could be found among the lowest income group, i.e., respondents earning up to Rs. 10,000 (89.3%) and less low financial literacy could be found within the highest income group, i.e., Rs. 50,000 and up (51.3%).

A Chi-square test was carried out to study the relationship between the monthly income of the respondents and their level of financial literacy. The hypothesis for the Chi-square test for the data shown in table 5.21 is provided below:

H_0: There is no significant association between respondent monthly income and the levels of financial literacy.

H_1: There is a significant association between respondent monthly income and the levels of financial literacy.

Table 5.21 Cross Tabulation of Respondent Monthly Income and Financial Literacy

Level of Financial Literacy	Respondents' monthly income (Amount in Rs)						Total
	Up to 10,000	10,001-20,000	20,001-30,000	30,001-40,000	40,001-50,000	50,001 and above	
High	28 (10.7)	20 (15.7)	36 (26.7)	42 (42.9)	30 (48.4)	57 (48.7)	213 (26.6)
Low	233 (89.3)	107 (84.3)	99 (73.3)	56 (57.1)	32 (51.6)	60 (51.3)	587 (73.4)
Total	261 (100)	127 (100)	135 (100)	98 (100)	62 (100)	117 (100)	800 (100)

Fig. 5.8 Respondent's Income and Financial Literacy

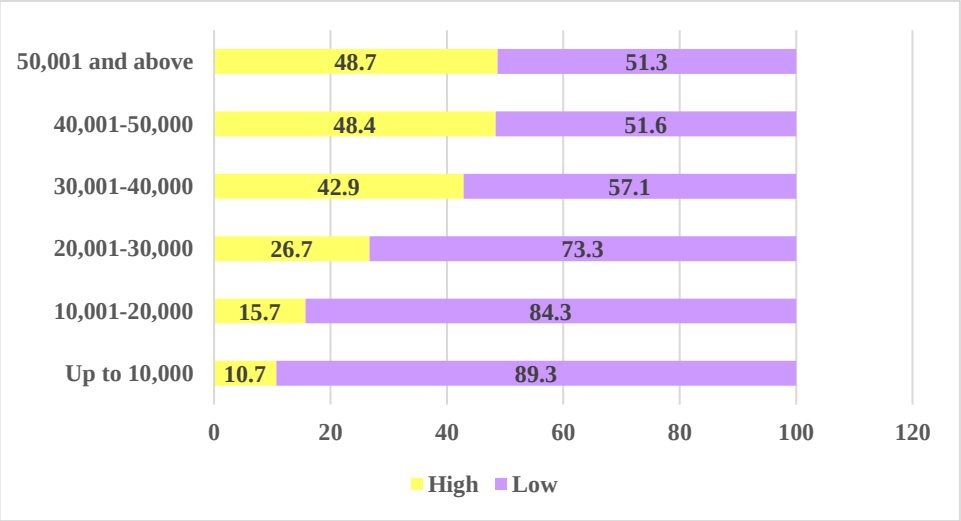


Table 5.22 Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	98.933[a]	5	.000
Likelihood Ratio	100.256	5	.000
Linear-by-Linear Association	94.139	1	.000
Numbers of Valid Cases	800		

Table 5.23 Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.352	.000
	Cramer's V	.352	.000
	Contingency Coefficient	.332	.000
Numbers of Valid Cases		800	

The result in the table 5.22 shows that the P-value of Chi-square is 0.00 which is found to be less than the significance level $\alpha = 0.05$. Hence, it can be concluded that there is a significant association between the respondent's monthly income and their level of financial literacy. It means the null hypothesis was rejected and both the variables were not independent of each other. Table 5.23 shows that Cramer's V value is significant at 0.000 and the degree of association between two variables is 0.35 which means the relationship is very strong.

As shown above, one of the most important factors of financial literacy is income of the respondents. The following analysis is performed to see whether the respondents' income levels play a different role in their financial knowledge and behaviour.

Table 5.24 Respondents' Income Level and Financial Knowledge

Score of Financial Knowledge	Respondents' monthly income (Amount in Rs)						
	Up to 10,000	**10,001-20,000**	**20,001-30,000**	**30,001-40,000**	**40,001-50,000**	**50,001 and above**	**Total**
High	53 (20.3)	46 (36.2)	50 (37.0)	49 (50.0)	31 (50.0)	75 (64.1)	304 (38.0)
Low	208 (79.7)	81 (63.8)	85 (63.0)	49 (50.0)	31 (50.0)	42 (35.9)	496 (62.0)
Total	261 (100)	127 (100)	135 (100)	98 (100)	62 (100)	117 (100)	800 (100)

The table 5.24 shows that high financial knowledge is seen among the respondents with the highest income, i.e., Rs. 50,001 and above (64.1 %). On the other hand, respondents' financial knowledge is observed to be less among the lowest income level group, i.e., up to Rs. 10,000 (20.3 %). Thus, the trend shows that people with higher incomes are more likely to have high financial knowledge compared to people with lower income levels.

Table 5.25 Respondents' Income Level and Financial Behaviour

Financial Behaviour	Respondents' monthly income (Amount in Rs)						
	Up to 10,000	**10,001-20,000**	**20,001-30,000**	**30,001-40,000**	**40,001-50,000**	**50,001 and above**	**Total**
Check affordability	254 (97.3)	122 (96.1)	130 (96.3)	93 (94.9)	58 (93.5)	108 (92.3)	765 (95.6)
Timely payment of utility bill	197 (75.5)	104 (81.9)	112 (83.0)	82 (83.7)	55 (88.7)	108 (92.3)	658 (82.3)
Close watch on financial affairs	116 (44.4)	56 (44.1)	74 (54.8)	64 (65.3)	39 (62.9)	73 (62.4)	422 (52.8)

Long term financial goals	146 (55.9)	86 (67.7)	98 (72.6)	74 (75.5)	51 (82.3)	80 (68.4)	535 (66.9)
Goals to guide financial decisions	125 (47.9)	76 (59.8)	91 (67.4)	65 (66.3)	47 (75.8)	81 (69.2)	485 (60.6)
Develop a budget	74 (28.4)	37 (29.1)	57 (42.2)	39 (39.8)	30 (48.4)	50 (42.7)	287 (35.9)
Set aside money for special events	75 (28.7)	42 (33.1)	55 (40.7)	50 (51.0)	28 (45.2)	42 (35.9)	292 (36.5)
Set part of income every month	91 (34.8)	60 (47.2)	97 (71.9)	76 (77.6)	57 (91.9)	90 (76.9)	470 (58.8)
Make notes and control personal spending	66 (25.3)	34 (26.8)	45 (33.3)	40 (40.8)	24 (38.7)	51 (43.6)	260 (32.5)
Compare prices when making purchases	218 (83.5)	100 (78.7)	106 (78.5)	79 (80.6)	52 (83.9)	87 (74.4)	642 (80.3)
Seek information regarding investment	116 (44.4)	75 (59.1)	103 (76.3)	75 (76.5)	54 (87.1)	90 (76.9)	513 (64.1)
Consider options from various institutions	49 (18.8)	29 (22.8)	51 (37.8)	48 (49.0)	32 (51.6)	63 (53.8)	272 (34.0)
Evaluate financial products before investing	53 (20.3)	34 (26.8)	61 (45.2)	51 (52.0)	30 (48.4)	74 (63.2)	303 (37.9)
Invested in more than one investment avenue	63 (24.1)	39 (30.7)	55 (40.7)	49 (50.0)	33 (53.2)	71 (60.7)	310 (38.8)
Use mobile phone to make payments	21 (8.0)	26 (20.5)	45 (33.3)	42 (42.9)	25 (40.3)	64 (54.7)	223 (27.9)
Buy lottery ticket	90 (34.5)	50 (39.4)	62 (45.9)	43 (43.9)	28 (45.2)	35 (29.9)	308 (38.5)

The table 5.25 shows that financial behaviour varies among respondents with different income levels. The study considered 16 variables that form the financial behaviour of people. It can be seen from the table that all the income groups check the affordability before buying anything carefully. However, this behaviour is observed more among the respondents whose income is low i.e., up to Rs. 10,000 (97.3 %). Respondents with income Rs. 50,001 and above does this practice lesser than other income groups (92.3 %). However, most of them pay utility bills on time. On the other hand, lowest income group (up to Rs. 10,000) are least likely to pay such bills on time (75.5 %). Majority of respondents who fall under the income group Rs. 30,001-40,000 keep close watch on their financial affairs (65.3 %). Whereas, the lower income groups i.e., Rs. 10,001-20,000 (44.1

%) and up to Rs. 10,000 (44.4 %) are least likely to keep close watch on their financial affairs.

The proportion of people who set long term financial goals such as children's education, buying home, and retirement is highest in case of income group Rs. 40,001-50,000 (82.3%). Their proportion is also highest in case of setting goals to guide financial decisions (75.8 %) and developing a budget (48.4 %). These behaviours are least seen among respondents whose income level is up to Rs. 10,000 i.e., 55.9 %, 47.9 % and 28.4 % respectively. Setting aside money for special events/occasions is mostly seen among the income group Rs. 30,001-40,000 (51.0 %) followed by the income group Rs. 40,001-50,000. Whereas, the proportion of people with such habit was found to be lowest among the income group 'up to Rs. 10,000' (28.7 %) found to be the least in doing this practice. Similarly, they are the minority when it comes to saving a part of their income every month and also to make notes and control their personal spending with 34.8 % and 25.3 % respondents respectively. These the saving habit could be seen most among the respondents with income level Rs. 40,001-50,000 (91.9 %), while those with income 50,001 and above (43.6 %) comprised the majority of those who made notes and controlled their spendings.

When it comes to comparing prices while making a purchase, it is found that it is least frequent among the highest income group i.e., Rs. 50,001 and above (74.4 %) and most frequent among respondents earning Rs. 40,001-50,000 (83.9 %) and up to Rs, 10,000 (83.5 %). It is also found that respondent belonging to income group Rs. 40,001-50,000 (87.1 %) comprised the highest proportion of those who sought information before making any decision regarding investment. This practice was least frequent among the income group up to Rs. 10,000 (44.4 %).

The proportion of respondents under income level Rs. 50,001 and above is highest when it comes to 'considering options from various institutions' and 'evaluate financial products before investing'. Their proportion is also highest in case of 'investing in more than one investment avenue' and 'use mobile phone to make payments etc'. However, these behaviours were least frequent among the lowest income groups i.e., up to Rs. 10,000. When it comes to buying lottery tickets, it was observed that the proportion of respondents who buy lottery tickets is highest in case of income groups Rs. 20,001-30,000 (45.6 %)

and 40,001-50,000 (45.2 %). Whereas respondents with highest income level (29.9 %) were found to be least frequent in buying lottery tickets.

5.1.9 Association between Household Monthly Income and Level of Financial Literacy

Table 5.26 and Figure 5.9 shows the cross-tabulation of respondents' household monthly income and their level of financial literacy. The table depicts that most of the respondents in the high financial literacy category belonged to the income groups of 40,001-50,000 (42.2%), 50,001 and above (41.6%), and 30,001-40,000 (33%). In terms of low financial literacy, respondents with a monthly household income of up to 10,000 (94.3%) had the lowest financial literacy, followed by income groups 10,001-20,000 (84.8%) and 20,001-30,000 (79.8%).

The Chi-square test was conducted to study the relationship between the household monthly income of the respondents and their level of financial literacy. The hypothesis for the data shown in table 5.26 is provided below:

H_0: There is no significant association between household monthly income and the levels of financial literacy.

H_1: There is a significant association between household monthly income and the levels of financial literacy.

Table 5.26 Cross Tabulation of Household Monthly Income and Financial Literacy

Level of Financial Literacy	Households' monthly Income						
	Up to 10,000	10,001-20,000	20,001-30,000	30,001-40,000	40,001-50,000	50,001 and above	Total
High	9 (5.7)	17 (15.2)	24 (20.2)	30 (33)	27 (42.2)	106 (41.6)	213 (26.6)
Low	150 (94.3)	95 (84.8)	95 (79.8)	61 (67)	37 (57.8)	149 (58.4)	587 (73.4)
Total	159 (100)	112 (100)	119 (100)	91 (100)	64 (100)	255 (100)	800 (100)

Fig. 5.9 Household's Income and Financial Literacy

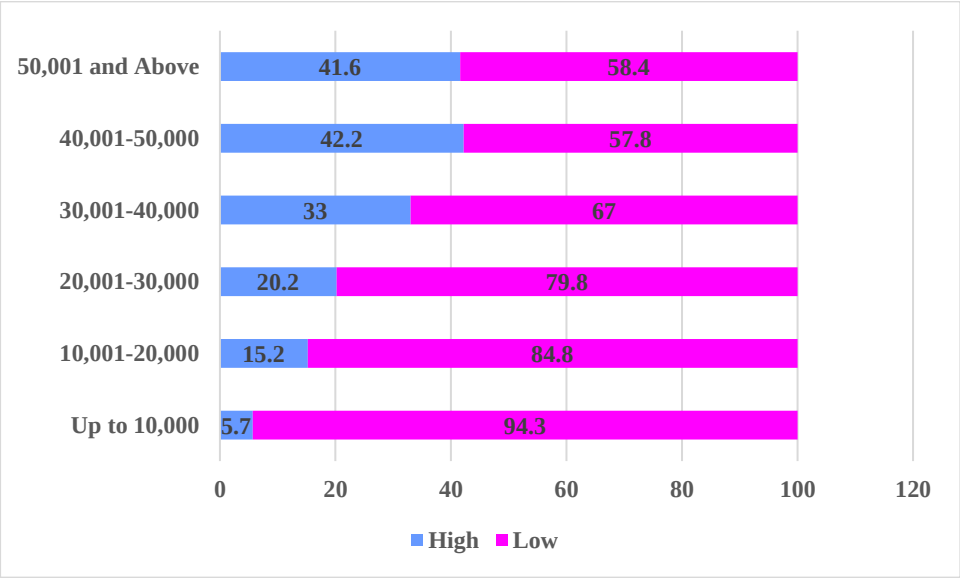


Table 5.27 Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	84.778[a]	5	.000
Likelihood Ratio	94.241	5	.000
Linear-by-Linear Association	81.929	1	.000
Numbers of Valid Cases	800		

Table 5.28 Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.326	.000
	Cramer's V	.326	.000
	Contingency Coefficient	.310	.000
Numbers of Valid Cases		800	

The result in the Table 5.27 demonstrates that the P-value of Chi-square is 0.00 which was found to be less than the significance level $\alpha = 0.05$. Hence, the conclusion can be made that there is a significant association between the respondent's household monthly income and their level of financial literacy. It means the null hypothesis was rejected and both the variables were not independent of each other. Table 5.28 shows that Cramer's V value is significant at 0.000 and the degree of association between two variables is 0.32 which means the relationship is very strong.

5.1.10 Association between Responsibility of Money Management and Level of Financial Literacy

The cross-tabulation in Table 5.29 and Figure 5.10 depicts the responsibility for money management in respondents' households along with their level of financial literacy. The majority (37%) of respondents who manage money with other family members were more financially savvy. It was followed by those who manage money with their spouse (29.1%), and those who handled money alone had the lowest percentage of high financial literacy. As a result, it was clear that the majority of respondents who made financial decisions on their own had the lowest level of financial literacy (78.4%).

A Chi-square test was carried out to study the relationship between the responsibility of money management and their level of financial literacy. The hypothesis for the data shown in table 5.29 is provided below:

H_0: There is no significant association between the responsibility of money management and the levels of financial literacy.

H_1: There is a significant association between the responsibility of money management and the levels of financial literacy.

Table 5.29 Cross Tabulation of Responsibility of Money Management and Financial Literacy

Level of Financial Literacy	Responsibility of money management				Total
	Yourself	Yourself and your spouse	Yourself and other member	Another family member	
High	61 (21.6)	125 (29.1)	17 (37.0)	10 (24.3)	213 (26.6)
Low	222 (78.4)	305 (70.9)	29 (63.0)	31 (75.6)	587 (73.4)
Total	283 (100)	430 (100)	46 (100)	41 (100)	800 (100)

Fig. 5.10 Responsibility of Money Management and Financial Literacy

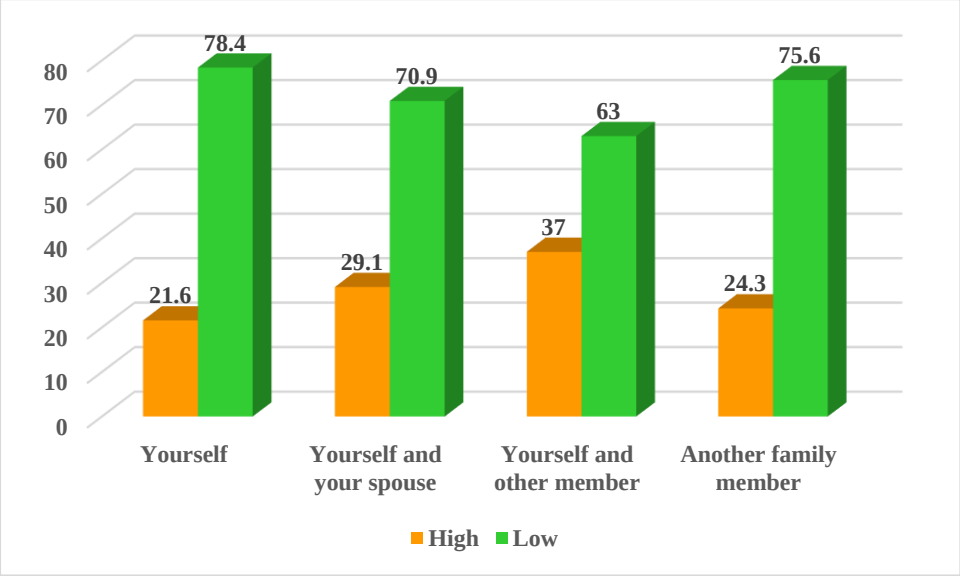


Table 5.30 Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.298[a]	4	.081
Likelihood Ratio	8.789	4	.067
Linear-by-Linear Association	3.023	1	.082
Numbers of Valid Cases	800		

As observed in Table 5.30, the output of the Chi-square test shows that the P-value is 0.08 which is more than the significance level i.e., $\alpha = 0.05$. Therefore, the null hypothesis was not rejected and it was concluded that there is no significant association between the responsibility of money management of the respondent and the level of financial literacy. To put it another way, the respondents' financial literacy is unrelated to who manages the household finances. The value of Cramer's V was not considered as no significant association has been found between the two variables.

5.1.11 Association between Additional Income and Level of Financial Literacy

The cross-tabulation of the respondents with additional income and their level of financial literacy is shown in Table 5.31 and Figure 5.11. According to the table, respondents (33.2%) with additional income were more financially literate than those without additional income (22.2%). The majority of respondents (77%) with no additional source of income had low financial literacy, whereas 66.8% with an additional source of income had high financial literacy.

A Chi-square test was carried out to study the relationship between respondents with additional income and their level of financial literacy. The hypothesis for the data shown in Table 5.31 is presented below:

H_0: There is a significant association between additional income and the levels of financial literacy.

H_1: There is a significant association between additional income and the levels of financial literacy.

Table 5.31 Cross Tabulation of additional income and Financial Literacy

Level of Financial Literacy	Additional income		Total
	No	Yes	
High	107 (22.2)	106 (33.2)	213 (26.6)
Low	374 (77.8)	213 (66.8)	587 (73.4)
Total	481 (100)	319 (100)	800 (100)

Fig. 5.11 Additional Income and Financial Literacy

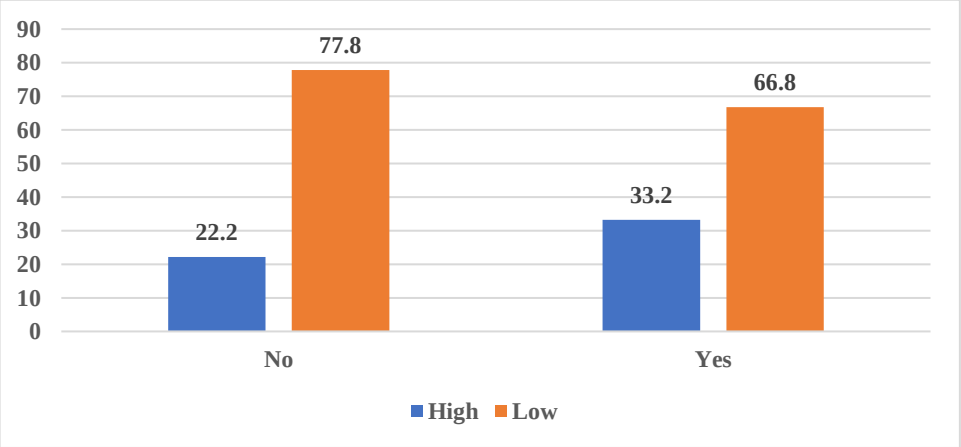


Table 5.32 Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	11.844[a]	1	.001		
Continuity Correction[b]	11.288	1	.001		
Likelihood Ratio	11.701	1	.001		
Fisher's Exact Test				.001	.000
Linear-by-Linear Association	11.829	1	.001		
Numbers of Valid Cases	800				

Table 5.33 Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.122	.001
	Cramer's V	.122	.001
	Contingency Coefficient	.121	.001
Numbers of Valid Cases		800	

The result in the Table 5.32 shows that the P-value of Chi-square is 0.00 which is found to be less than the significance level $\alpha = 0.05$. Hence, the conclusion can be made that there is a significant association between the respondents with additional income and their level of financial literacy. It means the null hypothesis was rejected and both the variables were not independent of each other. Table 5.33 shows that Cramer's V value is significant with 0.001and the degree of association between two variables is 0.12 which means the relationship is moderate.

5.1.12 Association between Nature of Workplace Activity and Level of Financial Literacy

Table 5.34 and Figure 5.12 depicts the cross-tabulation of respondents' nature of workplace activity and their level of financial literacy. The table demonstrates that the majority (58.6%) of respondents with financial-related employment activities were more likely to have high financial literacy. However, respondents whose nature of work was not financed as well as those who were not employed were found to have lower financial literacy (25.4%).

The Chi-square test was carried out to study the relationship between the nature of workplace activities of the respondent and their level of financial literacy. The hypothesis for the data shown in Table 5.34 is presented below:

H_0: There is no significant association between the nature of workplace activity and the levels of financial literacy.

H_1: There is a significant association between the nature of workplace activity and the levels of financial literacy.

Table 5.34 Cross Tabulation of Nature of Workplace Activity and Financial Literacy

Level of Financial Literacy	Nature workplace activity		Total
	Finance	Non-finance and others	
High	17 (58.6)	196 (25.4)	213 (26.6)
Low	12 (41.4)	575 (74.6)	587 (73.4)
Total	29 (100)	771 (100)	800 (100)

Fig. 5.12 Nature of Workplace Activity and Financial Literacy

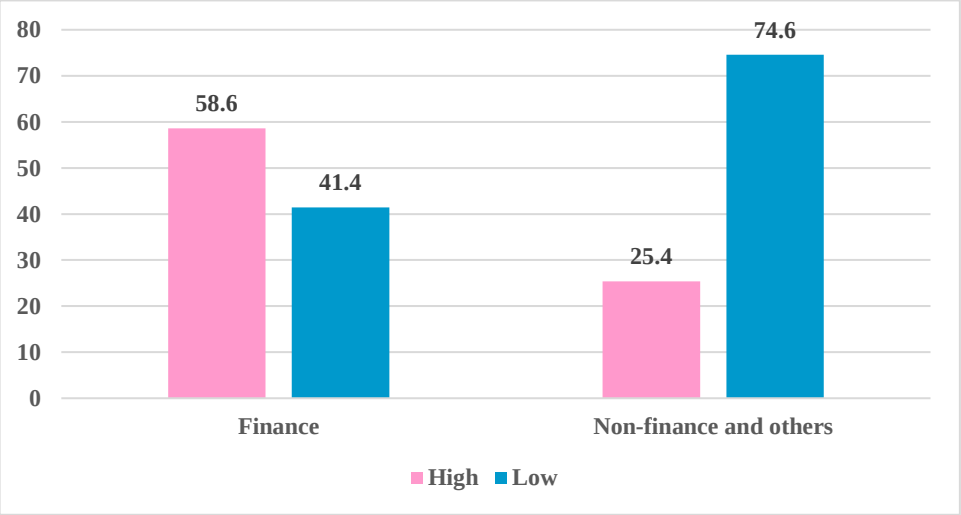


Table 5.35 Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	15.768[a]	1	.000		
Continuity Correction[b]	14.114	1	.000		
Likelihood Ratio	13.664	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	15.748	1	.000		
Numbers of Valid Cases	800				

Table 5.36 Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.140	.000
	Cramer's V	.140	.000
	Contingency Coefficient	.139	.000
Numbers of Valid Cases		800	

The result in the Table 5.35 shows that the P-value of Chi-square is 0.000 which is found to be less than the significance level $\alpha = 0.05$. Hence, it can be concluded that there is a significant association between the respondent's nature of workplace activity and their level of financial literacy. It means the null hypothesis was rejected and both the variables were not independent of each other. Table 5.36 shows that Cramer's V value is significant with 0.001 and the degree of association between two variables is 0.140 which means that the relationship is moderate.

5.1.13 Association between Household Size and Level of Financial Literacy

The cross-tabulation of respondents' family size and level of financial literacy is shown in Table 5.37 and Figure 5.13. The results indicate that the majority (35.2%) of respondents in the high financial literacy group had 2-4 family members, whereas the percentage of high financial literacy was lowest among respondents with more than 7 family members (18.3%). The findings revealed that the number of family members had a significant effect on financial literacy.

The Chi-square test was carried out to study the association between the size of the household of the respondent and their level of financial literacy. The hypothesis for the data shown in Table 5.37 is presented below:

H_0: There is no significant association between household size and the levels of financial literacy.

H_1: There is a significant association between household size and the levels of financial literacy.

Table 5.37 Cross Tabulation of Household Size and Financial Literacy

Level of Financial Literacy	Household size			Total
	2-4 members	5-7 members	More than 7 members	
High	70 (35.2)	97 (27.8)	46 (18.3)	213 (26.6)
Low	129 (64.8)	252 (72.2)	206 (81.7)	587 (73.4)
Total	199 (100)	349 (100)	252 (100)	800 (100)

Fig. 5.13 Household Size and Financial Literacy

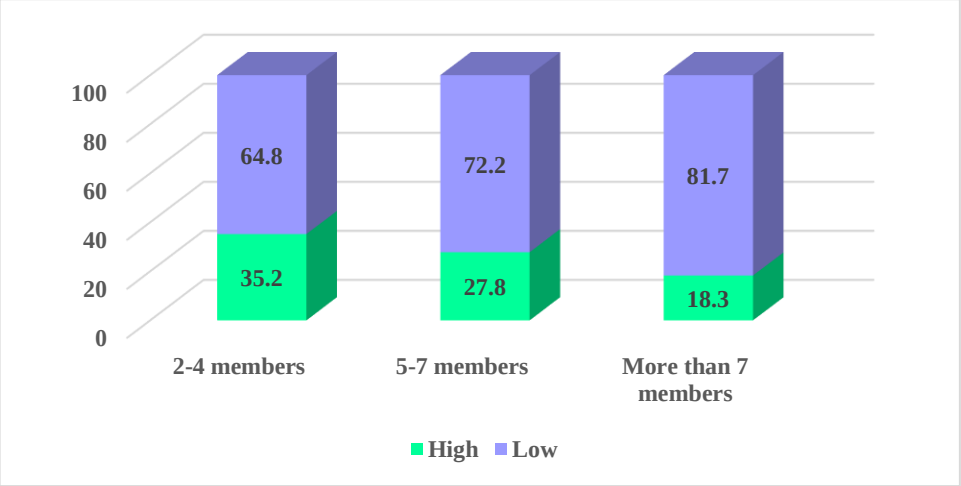


Table 5.38 Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.731[a]	2	.000
Likelihood Ratio	17.048	2	.000
Linear-by-Linear Association	16.594	1	.000
Numbers of Valid Cases	800		

Table 5.39 Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.145	.000
	Cramer's V	.145	.000
	Contingency Coefficient	.143	.000
Numbers of Valid Cases		800	

The result in the table 5.38 shows that the P-value of Chi-square is 0.000 which is found to be lower than the significance level $\alpha = 0.05$. Hence, the conclusion can be made that there is a significant association between the respondent's household size and their level of financial literacy. It means that the null hypothesis was rejected and both the variables were not independent of each other. Table 5.39 shows that Cramer's V value is significant at 0.000 and the degree of association between two variables is 0.145 which means the association is moderate.

5.1.14 Association between Number of Dependent and Level of Financial Literacy

Table 5.40 and Figure 5.14 shows the cross-tabulation of respondents' number of dependent and their level of financial literacy. According to the table, the majority (37.7%) of respondents with two dependents, had a high percentage of financial literacy, followed

by respondents with no dependents, 33.3%, three dependents, 32.6%, and respondents with more than four respondents, 20.2%. Similarly, respondents with more than four dependents had lesser financial literacy than others (79.8%), according to the findings.

A Chi-square test was carried out to study the relationship between the number of dependents of the respondent and their level of financial literacy. The hypothesis for the data shown in Table 5.40 is presented below:

H_0: There is no significant association between the number. of dependent and the levels of financial literacy.

H_1: There is a significant association between the number of dependent and the levels of financial literacy.

Table 5.40 Cross Tabulation of Number of Dependent and Financial Literacy

Level of Financial Literacy	Number of dependent						
	1	2	3	4	More than 4	None	Total
High	15 (25.4)	46 (37.7)	44 (32.6)	32 (24.8)	65 (20.2)	11 (33.3)	213 (26.6)
Low	44 (74.6)	76 (62.3)	91 (67.4)	97 (75.2)	257 (79.8)	22 (66.7)	587 (73.4)
Total	59 (100)	122 (100)	135 (100)	129 (100)	322 (100)	33 (100)	800 (100)

Fig. 5.14 Number of Dependent and Financial Literacy

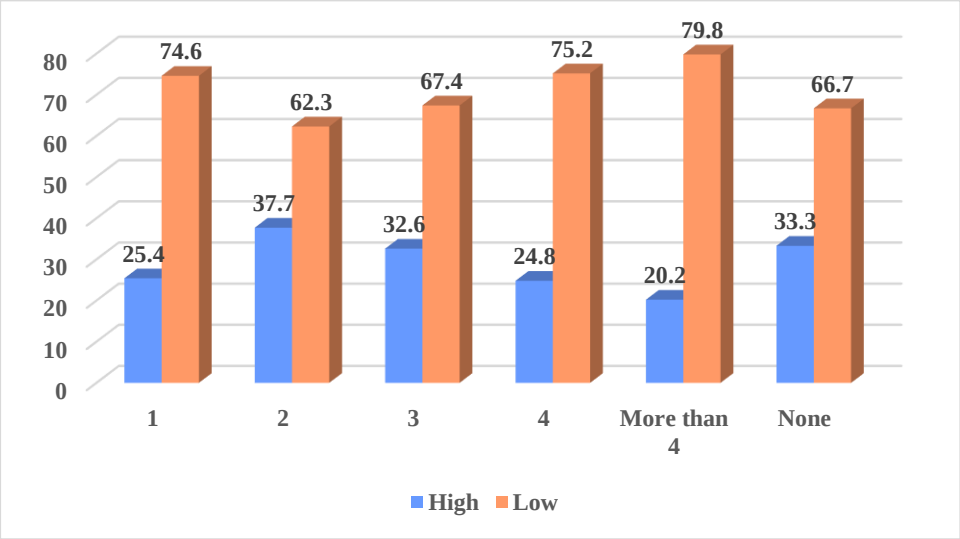


Table 5.41 Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.983[a]	5	.003
Likelihood Ratio	17.720	5	.003
Linear-by-Linear Association	7.891	1	.005
Numbers of Valid Cases	800		

Table 5.42 Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.150	.003
	Cramer's V	.150	.003
	Contingency Coefficient	.148	.003
Numbers of Valid Cases		800	

The result in the Table 5.41 shows that the P-value of Chi-square is 0.003 which is found to be less than the significance level $\alpha = 0.05$. Hence, the conclusion can be made that there is a significant association between the respondent's number of dependent and their level of financial literacy. It means the null hypothesis was rejected and both the variables were not independent of each other. Table 5.42 shows that Cramer's V value is significant with 0.003 and the degree of association between two variables is 0.150 which mean the relationship is moderate.

5.1.15 Association between Number of Earning Members and Level of Financial Literacy

Table 5.43 and Figure 5.15 display the cross-tabulation of the number of earning members and level of financial literacy. The majority of respondents having more-earning members in the household had high financial literacy, according to the findings. The largest percentage of high financial literates was 62.5%, having respondents with four earning members and 41.5% of respondents with more than four earning members. Respondents with one, three, and two earning members in their family had the lowest percentage of high financial literacy, at 23.3%, 26%, and 27.7%, respectively.

The Chi-square test was conducted to examine the relationship between the earning member of the family and their level of financial literacy. The hypothesis for the data shown in Table 5.43 is presented below:

H_0: There is no significant association between the number of earning members and the levels of financial literacy.

H_1: There is a significant association between the number of earning members and the levels of financial literacy.

Table 5.43 Cross Tabulation of Number of Earning Members and Financial Literacy

Level of Financial Literacy	Number of earning members					Total
	1	2	3	4	More than 4	
High	80 (23.3)	105 (27.7)	13 (26.0)	10 (62.5)	5 (41.7)	213 (26.6)
Low	263 (76.7)	274 (72.3)	37 (74.0)	6 (37.5)	7 (58.3)	587 (73.4)
Total	343 (100)	379 (100)	50 (100)	16 (100)	12 (100)	800 (100)

Fig. 5.15 Number of Earning Member and Financial Literacy

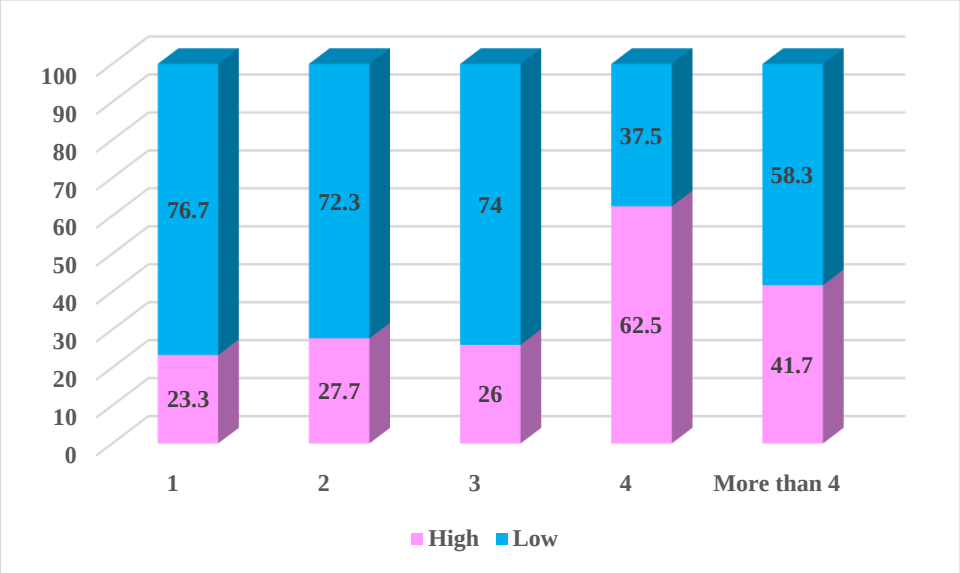


Table 5.44 Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.080[a]	4	.007
Likelihood Ratio	12.480	4	.014
Linear-by-Linear Association	7.935	1	.005
Numbers of Valid Cases	800		

Table 5.45 Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.133	.007
	Cramer's V	.133	.007
	Contingency Coefficient	.132	.007
Numbers of Valid Cases		800	

The result in Table 5.44 shows that the P-value of Chi-square is 0.007 which is found to be less than the significance level $\alpha = 0.05$. Hence, the conclusion can be made that there is a significant association between the respondent's number of earning members in the family and their level of financial literacy. It means the null hypothesis was rejected and both the variables were not independent of each other. Table 5.45 shows that Cramer's V value is significant with 0.007 and the degree of association between two variables is 0.133 which shows that association is moderate.

5.2 Chapter Summary

This chapter presents the analyses and findings of the second objective of the study. This chapter looked at the overall association between respondents' socioeconomic and demographic characteristics and their level of financial literacy. The findings also provide insight into the various factors that affect respondents' financial literacy in the study area. The summary table of all the Chi-square results is as follow:

Table 5.46 Summary of Chi-square Results

Variables	p-value	H_0	Cramer's V
Area	.000	Rejected	.218
Gender	.033	Rejected	.075
Marital Status	.067	Accepted	-
Level of Education	.000	Rejected	.362
Age	.020	Rejected	.121
Category	.000	Rejected	.296
Occupation	.000	Rejected	.261
Respondent's Monthly Income	.000	Rejected	.352
Household's Monthly Income	.000	Rejected	.326
Responsibility of Money Management	.081	Accepted	-
Additional Income	.001	Rejected	.122
Nature of Workplace Activity	.000	Rejected	.140
Household Size	.000	Rejected	.145
Number of Dependent	.003	Rejected	.150
Number of Earning Members	.007	Rejected	.133

The study found a statistically significant association between several socioeconomic and demographic variables and financial literacy. However, among other factors, the respondent's level of education, category, occupation, respondent monthly income, household income and area where they live had a strong association with their level of

financial literacy. Furthermore, other factors such as the respondent's residence area, gender, and age, a respondent additional source of income, the nature of their workplace activity, household size, number of dependents, and earning members in the family were found to influence the respondent’s level of financial literacy moderately in the area of study. On the other hand, only the respondent's marital status and responsibility of money management in the house were found to have no bearing on their financial literacy.

CHAPTER 6

IMPACT OF FINANCIAL LITERACY ON SAVING AND INVESTMENT BEHAVIOUR

6.0 Introduction

The preceding chapter explored the association between financial literacy and socio economic and demographic variables of respondents. This chapters deal with the relation between financial literacy and saving and investment behavior of the respondents. The chapter starts with discussion about how saving and investment behavior scores were calculated. Next, frequency distribution showing different aspects on the basis of which saving and investment behavior scores were calculated. It was followed by the crosstabulation of financial literacy and different saving and investment of the respondents. And finally, analysis and result of logistic regression to find impact of financial literacy on saving and investment behavior has been discussed.

6.1 Saving and Investment Behaviour Score

The information about the respondents' saving and investment activity was gathered based on the financial instruments they own and how they behave when buying and maintaining these savings and investments. Their saving and investment behaviours were assessed using five questions which are comprised in the survey instrument, as shown in table 6.1. The aspects covered were: channels of saving, investment avenues, priorities place on purposes for saving and investment, priority place on factors taken into consideration before saving and investment, and frequently used sources of information.

These aspects and variables have been considered from literatures, and some were introduced after the pilot study to account for the specific needs of the study area. In deciding the respondent's saving and investment behaviour, all questions were given equal weight. For each question, the correct answer carried one point. The status of saving and investment behaviour were considered based on percentiles as shown in Table 6.1, with 15 and below (negative), 16-20 (neutral), and 21 and above (positive). Respondents who scored 21 or higher were deemed to have positive saving and investment habits. Respondents with a ranking of 16 to 20 were listed as having neutral saving and investment behaviour. Finally, respondents with a score of less than 15 were given a negative rating in the field of saving and investing conduct.

Table 6.1: Percentiles for Score

Score for saving and investment	Percentiles	Values
	25	15.00
	50	18.00
	75	21.00

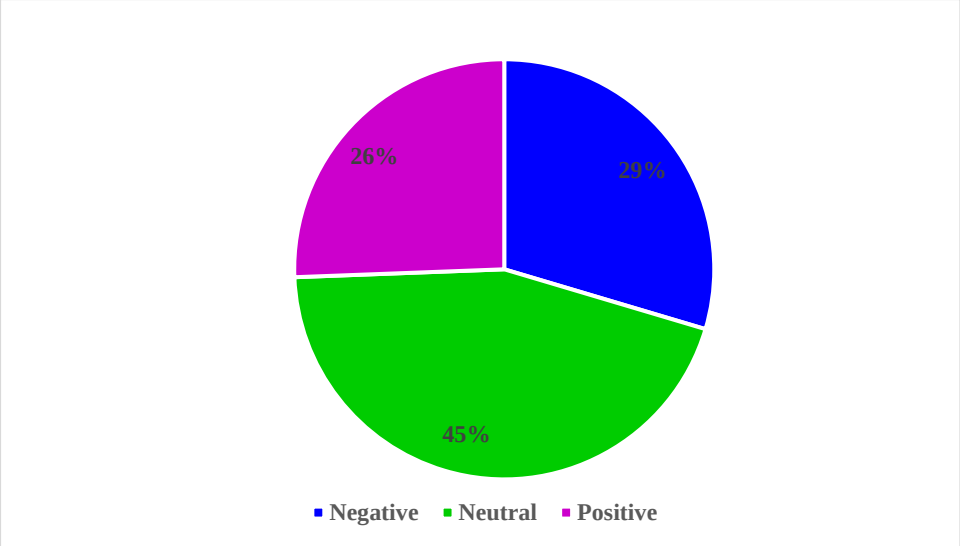
Table 6.2: Saving and Investment Score

Questions		Score	Total items
Saving	What are your channels of saving?	1 for saving and 0 for not saving.	12 items
Investment	Which investment avenues have you invested?	1 for investing and 0 for not investing	16 items
Saving and investment purposes	State the level of priority you place on the following saving and investment purposes.	1 for very high, high or 0 otherwise.	10 items
Considered factors for saving and investment	State your level of priority on the following factors taken into consideration before saving and investment.	1 for very high, high or 0 otherwise.	7 items
Sources of information	Rank the following sources of information where you search frequently for your saving and investment related queries.	1 for best buy guidance, 0 otherwise	5 items
Total Score			**50 items**

Table 6.3: Overall Saving and Investment Behavior

Responses	Frequency	Percentage
Negative	237	29.6
Neutral	358	44.8
Positive	205	25.6
Total	800	100.0

Fig: 6.1 Pie Chart of Overall Saving and Investment Behavior



The savings and investment behaviours of respondents in the study area are shown in Table 6.3 and Figure 6.1. The overall report revealed that nearly half of the respondents (44.8%) had neutral saving and investment behaviours, implying that the majority's behaviour was neither negative nor positive. However, by comparing the two classes, negative and positive behaviours, the study found that the majority of the respondents (29.6%of the total sample) had negative saving and investment habits. It demonstrates that people have poor saving and investment habits, which may lead to financial difficulties in the future. It is also worth noting that the lowest proportion of respondents, 25.6% of the overall sample, had positive behaviour.

6.2 Frequency Distribution of Aspects Considered for Saving and Investment Behavior

Table 6.4 and Figure 6.2 depicts various channels of saving employed by respondents. The channels of saving have been categorized into three parts namely, informal saving, semi-formal saving and formal saving. When it comes to informal saving, the majority of respondents chose to save in kind, as seen in Table 6.4. A total of 76.9% of the respondents saved in kind, such as animals, and it was followed by need-based institutions (39.8%). Just 20.9% of the respondents said they save money at home.

In terms of semi-informal saving, the majority of the respondents, 19.3%, save their money via self-help groups. Microfinance institutions and mutual liability groups were used by 1.9% and 1.3% of respondents, respectively, to save. This demonstrates that respondents do not prefer the semi-informal saving mode.

When it came to formal saving, the most common mode was the bank, where 88.4% of the respondents saved their money. It was followed by savings at the post office, where 18.8% of the respondents saved their income. The next most popular investment was real estate, in which 6.6% of the respondents saved their money. Approximately 4.3% saved in mutual funds, 3.4% in gold, and 0.5% in the stock market, which seemed to be a relatively unpopular choice.

Overall, the findings show that most of the sample respondents saved their money in the bank (88.4%). Saving in kind (76.9%) and need-based institutions (39.8%) came in second and third, respectively. Stocks (0.5%), joint liability groups (1.3%), and micro-financial institutions (1.9%) were the least common channels of savings.

Table 6.4: Channels of Saving

Types of Saving	Channels of Saving	Yes	No
Informal saving	Saving cash at home	167 (20.9)	633 (79.1)
	Saving in kind	615 (76.9)	185 (23.1)
	Need-based institution	318 (39.8)	482 (60.3)
Semi-Formal saving	Self Help Group	154 (19.3)	646 (80.8)
	Micro Finance Institution	15 (1.9)	785 (98.1)
	Joint Liability Group	10 (1.3)	790 (98.8)
Formal Saving	Bank	707 (88.4)	93 (11.6)
	Post office saving	150 (18.8)	650 (81.3)
	Mutual fund	34 (4.3)	766 (95.8)
	Stocks	4 (0.5)	796 (99.5)
	Gold	27 (3.4)	773 (96.6)
	Real Estate	53 (6.6)	747 (93.4)

Source: *Primary survey*
Note: *Figures in parentheses shows the percentage of respondents*

Fig.6.2 Bar Chart of Channels of Saving

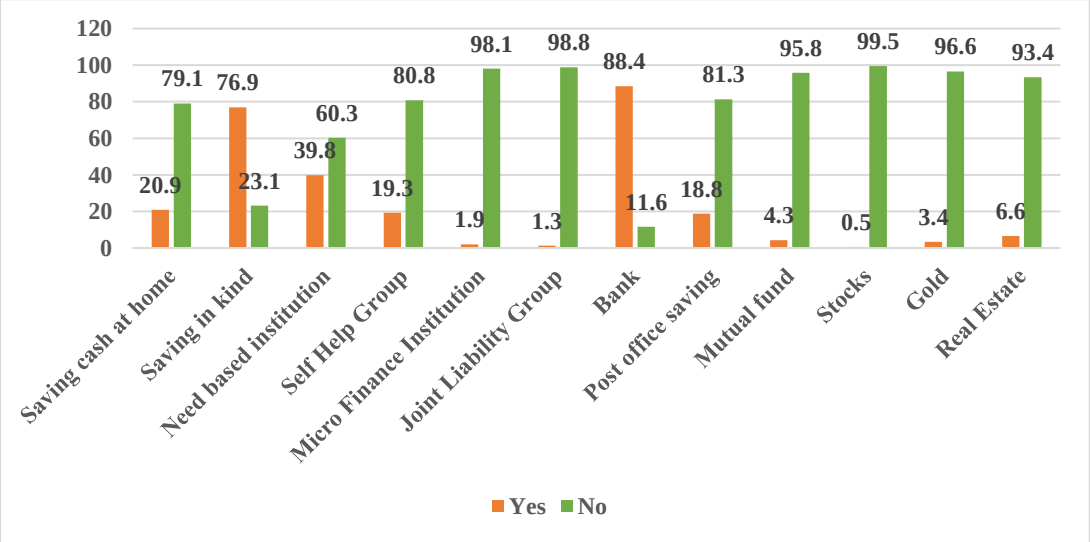


Table 6.5 and Figure 6.3 depicts the various investment options availed by the sample respondents. A majority of 46.5% of all respondents have invested their money in bank deposits. According to the results of the study, a large percentage of respondents seem to be most comfortable investing their money in bank deposits such as recurring and fixed deposits. Furthermore, many of them were unaware of other investment options, some did not want to take financial risks, and some did not have sufficient money to invest. Insurance and provident fund were the next most prominent investment options, accounting for 40.3% and 22.8% of the total sample, respectively. The result also shows that the least popular avenues among respondents were the foreign exchange market (0.1%), which was followed by 0.8% derivatives, 0.9% and 0.9% respondents in debenture

and bond and commodity market respectively. The overall result indicated that respondents' investment habits were not very encouraging. Demanding family commitments, a lack of additional income, and a lack of expertise were among the major causes of such poor investment habits.

Table 6.5: Investment Avenues

Investment Avenues	Yes	No
Debenture and bond	7 (0.9)	793 (99.1)
Shares	14 (1.8)	786 (98.3)
Foreign exchange market	1 (0.1)	799 (99.9)
Mutual fund	47 (5.9)	753 (94.1)
Insurance	322 (40.3)	478 (59.8)
Bank deposit	372 (46.5)	428 (53.5)
Derivatives	6 (0.8)	794 (99.3)
Government securities	27 (3.4)	773 (96.6)
Provident funds	182 (22.8)	618 (77.3)
Post office saving schemes	138 (17.3)	662 (82.8)
Pension plan	156 (19.5)	644 (80.5)
Chit funds	11 (1.4)	789 (98.6)
Real estate	113 (14.1)	687 (85.9)
Precious metals	17 (2.1)	783 (97.9)
Commodity market	7 (0.9)	793 (99.1)
Local ornaments	46 (5.8)	754 (94.3)

Source: *Primary survey*

Note: *Figures in parentheses shows the percentage of respondents*

Fig 6.3 Bar Chart of Investment Avenues

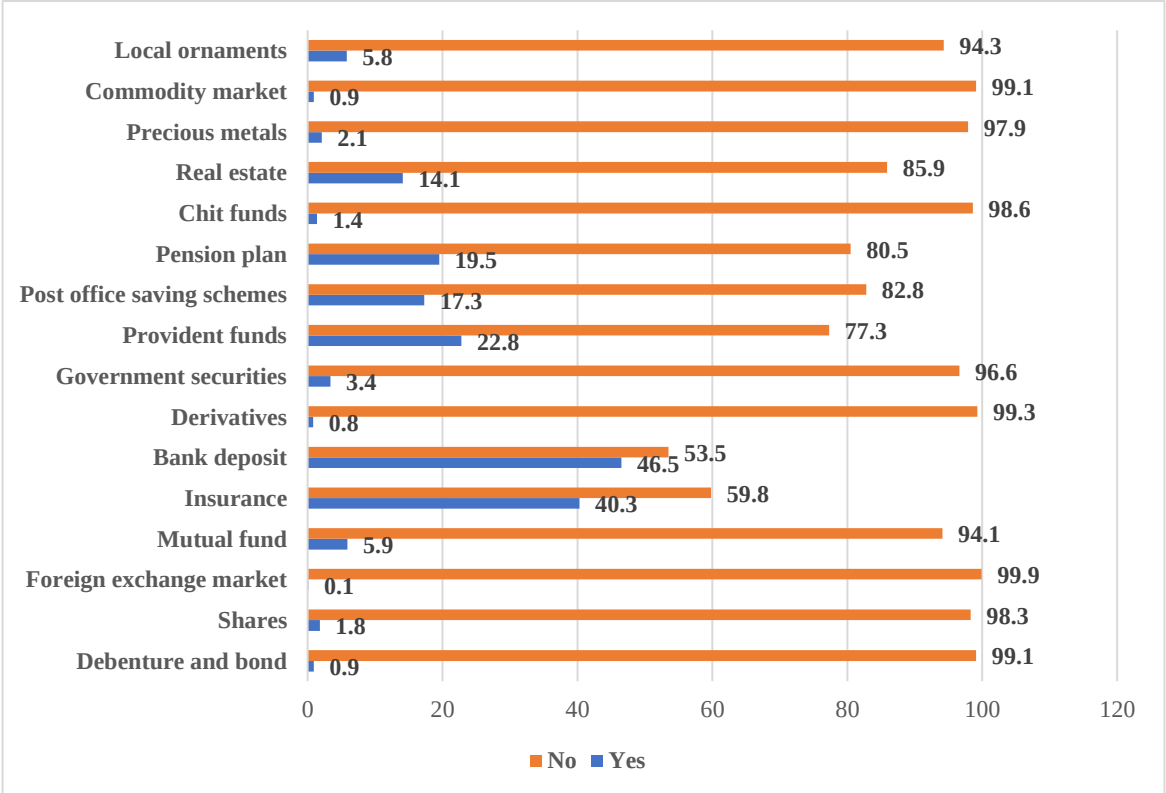


Table 6.6: Priorities Placed on Purposes

Responses	Children Education	Daily Household Expenses	Children Marriage	Construction of House	Social ceremonies	Comfortable Life	Health Care	Repayment of Debt	To Meet Contingency	Generate Future Income
1	28 (3.5)	13 (1.6)	427 (53.4)	127 (15.9)	363 (45.4)	97 (12.1)	102 (12.8)	279 (34.9)	142 (17.8)	272 (34)
2	50 (6.3)	20 (2.5)	112 (14)	81 (10.1)	139 (17.4)	192 (24)	93 (11.6)	145 (18.1)	115 (14.4)	118 (14.8)
3	722 (90.3)	767 (95.9)	261 (32.6)	592 (74)	298 (37.3)	511 (63.9)	605 (75.6)	376 (47)	543 (67.9)	410 (51.3)

Source: *Primary survey*
**1= Low/Very low, 2=Neutral, 3= Very high/High*
Note: *Figures in parentheses shows the percentage of respondents*

Fig.6.4 Bar Chart of Priorities Placed on Purposes

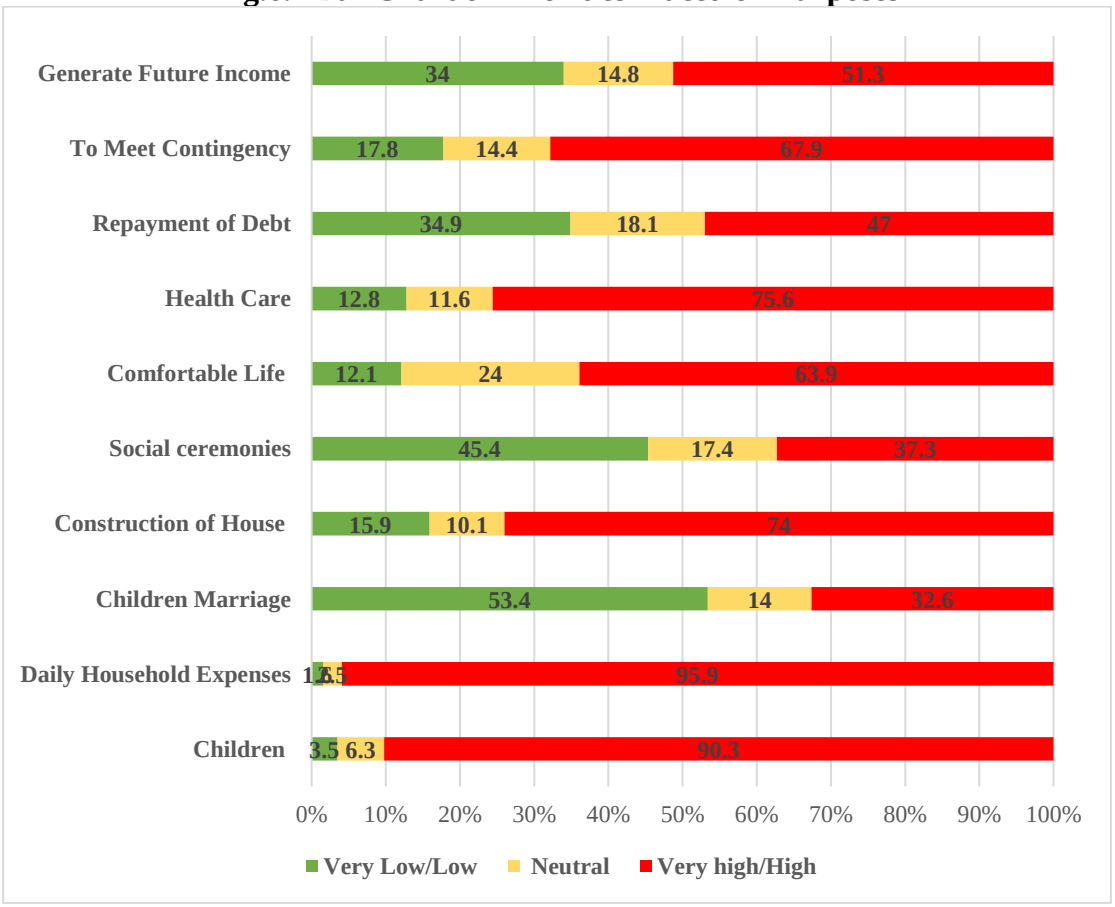


Table 6.6 and Figure 6.4 displays the respondent's priorities for various saving and investment purposes. The responses of the respondents were divided into three categories. Those who prioritize their purpose 'very high' or 'high' were rated as 3, which is a positive behaviour. Those who chose 'neutral' were given a score of 2 and those who chose 'very

low' or 'low' priorities on purposes were given a score of 1, which is negative. The table indicated that the majority of respondents (90.3%) put a high priority on their children's education. Just 3.5% of the respondents placed a low priority for their children's education, while 6.3% placed neutral priorities on the same reason. This demonstrated that children's education was a vital cause to save and invest.

In terms of daily household expenses, it was revealed that 95.9% of the respondents considered their daily household expenses to be high-level priorities for saving and investment. It received neutral and low priorities from 2.5% and 1.6% of the respondents, respectively. The table also pointed out that most of the respondents (53.4%) did not give so much importance to children's marriage. Just 32.6% of the respondents placed a higher priority on saving and investing money for their children's marriages. However, 14% of the respondents were neutral, indicating that they either did not put a lot of emphasis on saving or investing for their children or that they did not have any children.

The table also indicates that respondents placed a higher value on house construction. As it can be seen, 74% of the respondents placed a high priority on saving or investing money in home construction. In terms of social ceremonies, the majority of the respondents placed a low priority on this purpose (45.4%), while 37.3% of them placed a high priority on such ceremonies and usually set aside money for this particular purpose. However, 17.4% of the respondents were undecided about this goal.

The aim to aspiration to live a comfortable life was given high priority by 63.9% of the respondents. 24% of the respondents were undecided about their priorities, and 12.1% prioritized saving or investing money for a comfortable life lower on their priority list. The table also shows that 75.6% of the respondents saved or invested money in healthcare expenses. Health care was one of their top priorities. 12.8% and 11.6% of the respondents were neutral and gave this aim low priority, respectively.

With regards to the repayment of the debt, the table shows that 47% of the respondents kept this at a high priority level as their saving or investment purpose. 34.9% of the respondents did not keep it as a priority or they gave it less priority. 18.1% of the respondent were neutral about the purpose either because they had less or no debt. When it came to saving or investing money to meet contingency, it was discovered that the vast majority of respondents i.e., 67.9% gave high priority to this purpose. 17.8% of the respondents were neutral and 14.4% placed a low priority on saving or investing money for contingencies.

Similarly, the majority of 51.3% of the respondents prioritized saving or investing money to produce future income, as seen in Table 6.6. Approximately 34% placed a low priority on this goal, while 14.8% were undecided or neutral.

However, when comparing overall purposes, the majority of the respondents rated daily household expenses (95.9%) as their highest priority, followed by children's education (90.3%) and healthcare (75.6%). Children's marriage (32.6%), social ceremonies (37.3%), and debt repayment (47%) were the least prioritized purposes.

Table 6.7: Factors Considered before Saving and Investment

Responses	Safety of Principle	Low Risk	Regular Returns	High Returns	Liquidity	Market-ability	Prompt Return
1	10 (1.3)	24 (3)	111 (13.9)	196 (24.5)	108 (13.5)	155 (19.4)	57 (7.1)
2	51 (6.4)	73 (9.1)	228 (28.5)	243 (30.4)	255 (31.9)	318 (39.8)	241 (30.1)
3	739 (92.4)	703 (87.9)	461 (57.6)	361 (45.1)	437 (54.6)	327 (40.9)	502 (62.8)

Source: *Primary survey*
**1= Low/Very low, 2=Neutral, 3= Very high/High*
Note: *Figures in parentheses shows the percentage of respondents*

Fig.6.5 Bar Chart of Factors Considered before Saving and Investment

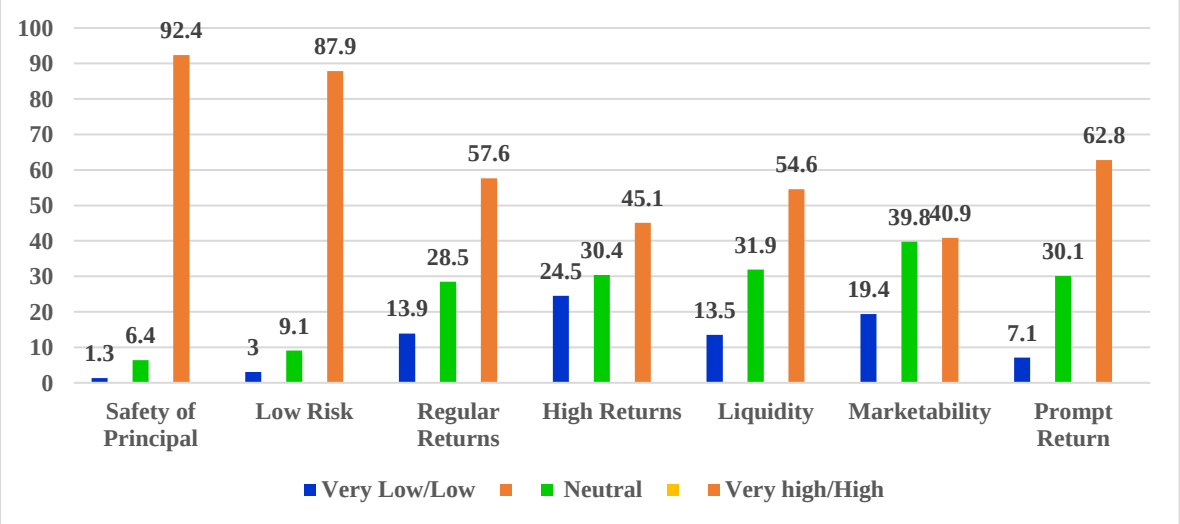


Table 6.7 and Figure 6.5 depicts how important each consideration was to a respondent before making a saving or investment decision. The majority of respondents (92.4%) placed a high priority on the safety of principal money when saving or investing their money. It was given neutral importance by 6.4% of the respondents, whereas it was given low priority by 1.3%. It was also observed that 87.9% of the respondents placed a high priority on the low-risk factor when making financial decisions. However, 9.1% were

neutral, and 3% placed a low value on this factor. With regard to regular returns, 57.6% of the respondents placed high priorities on it. 28.5% were neutral, while 13.9% of the respondents gave low priority to regular returns.

With regards to the high return factor, the table shows that 45.1% of the sample respondents highly prioritised this factor while making any decision on saving or investment. 30.4% of the respondents were undecided or neutral, while 24.5% placed a low priority on the high return factor. When it comes to liquidity, it is seen that the majority of the respondents (54.6%) placed a high priority on this factor. It is followed by those respondents who were neutral about this factor (31.9%). Only 13.5% of the total sample respondents placed a low priority on liquidity while considering financial products and services.

The table also shows that the majority of the respondents (40.9%) placed a high priority on marketability while saving or investing their money. 39.8% of the respondents were neutral while 19.4% placed a low priority on this factor. Concerning the factor 'prompt return,' it is observed that the majority of the respondents (62.8%) placed a high value on this factor. Out of the total sample, 30.1% were neutral while 7.1% gave low priority to the prompt return factor before saving or investing.

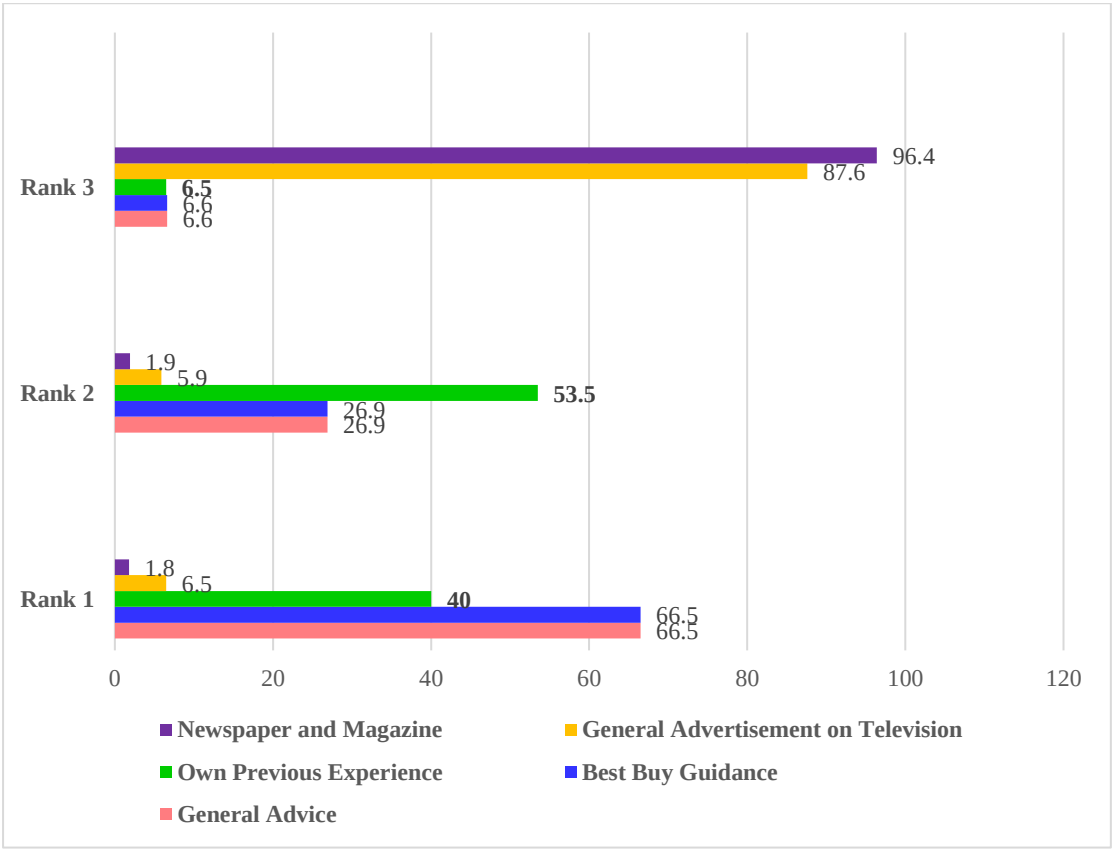
Overall, the findings suggest that when it comes to saving and investing, respondents are most concerned with the protection of their principal amount (92.4%). Low risk (87.9%) and prompt returns (62.8%) came in second and third, respectively. Marketability (40.9%) and a high return (45.1%) were found to be the least important factors considered before taking saving and investment decisions.

Table 6.8: Preferred Sources of Information

Responses	General Advice	Best Buy Guidance	Own Previous Experience	General Advertisement on Television	Newspaper and Magazine
1	532 (66.5)	532 (66.5)	320 (40)	52 (6.5)	14 (1.8)
2	215 (26.9)	215 (26.9)	428 (53.5)	47 (5.9)	15 (1.9)
3	53 (6.6)	53 (6.6)	52 (6.5)	701 (87.6)	771 (96.4)

Source: *Primary survey*
** 1=Rank 1 and 2, 2= Rank 3, 3= Rank 4 and 5*
Note: *Figures in parentheses shows the percentage of respondents*

Fig.6.6 Bar Chart of Preferred Sources of Information



The respondents were requested to rank the sources of information on saving and investing that they use the most. Table 6.8 and Figure 6.6 shows the respondent's responses to the survey. The table indicates that general advice was ranked first as the most commonly used source of information by the majority of respondents (66.5%). That is, they often seek advice from peers, acquaintances, co-workers, and family members on matters of saving and investing. 26.9% of the sample respondents ranked it second and just 6.6% rated this source third, indicating that they considered general advice to be the last source of information when making financial decisions. With respect to best buy guidance, the result was similar to general advice. Means, majority of the respondent (66.5%) mostly preferred best buy guidance and approach bank staffs, financial advisors, agents, financial literacy or awareness programmes etc. whereas 26.9% kept this source in the second rank and 6.6% in the third rank. In addition, the table indicates that when making financial decisions, 40% of the respondents placed their own previous experiences first. However, more than half of the respondents (53.5%) rated it as the second most reliable source of information. Only 6.5% ranked own previous experience as the third most reliable source of information.

It can also be seen from the table that general television advertising was not a common source of information for saving and investment decisions. Just 6.5% of the respondents gave it a higher ranking, according to the findings. It was ranked second by 5.9% of respondents, and third by 87.6% of all respondents. Similarly, newspapers and magazines were also seen to be the least popular source of information among respondents when it came to saving and investment. Just 1.8% and 1.9% of the respondents, respectively, ranked it first and second. The majority of respondents (96.4%) ranked it third, indicating that they didn't rely on these sources for much information when making financial decisions. According to the overall results, the most prevalent sources of information used were general advice and best buy advice.

6.3 Cross Tabulation Results

In order to identify the relationship between different aspects considered for saving and investment behaviour of individuals and their levels of financial literacy, cross-tabulation analysis was carried out and results are discussed below.

Table 6.9 displays a cross-tabulation of saving channels used by the respondents with different levels of financial literacy. According to the results, the majority of respondents in the informal saving category (76.9%) saved in kind, with 56.3% having low financial literacy and 20.6% having high financial literacy. It can also be seen from the table that the semi-informal saving mode was not very popular among the sample respondents. The majority of them had low financial literacy, 15.6% in the self-help group, 1.5% in microfinance institutions and 1.0% in the joint liability group. When it comes to formal saving it was found that a high percentage of the respondents were saving their money in bank 88.4%, out of which 25.4% fell under the high financial literacy category, while 63% had low financial literacy.

Table 6.9: Channel of Saving and Financial Literacy

Channels	Response	Levels of financial literacy		Total
		Low	High	
Saving cash at home	No	458 (57.3)	175 (21.9)	633 (79.1)
	Yes	129 (16.1)	38 (4.8)	167 (20.9)
Saving in kind	No	137 (17.1)	48 (6.0)	185 (23.1)
	Yes	450 (56.3)	165 (20.6)	615 (76.9)
Need-based institution	No	380 (47.5)	102 (12.8)	482 (60.3)
	Yes	207 (25.9)	111 (13.9)	318 (39.8)
Self Help Group	No	462 (57.8)	184 (23.0)	646 (80.8)
	Yes	125 (15.6)	29 (3.6)	154 (19.3)

Micro Finance Institution	No	575 (71.9)	210 (26.3)	785 (98.1)
	Yes	12 (1.5)	3 (0.4)	15 (1.9)
Joint Liability Group	No	579 (72.4)	211(26.4)	790 (98.8)
	Yes	8 (1.0)	2 (0.3)	10 (1.3)
Bank	No	83 (10.4)	10 (1.3)	93 (11.6)
	Yes	504 (63.0)	203 (25.4)	707 (88.4)
Post office saving	No	503 (62.9)	147 (18.4)	650 (81.3)
	Yes	84 (10.5)	66 (8.3)	150 (18.8)
Mutual fund	No	569 (71.1)	197 (24.6)	766 (95.8)
	Yes	18 (2.3)	16 (2.0)	34 (4.3)
Stocks	No	587 (73.4)	209 (26.1)	796 (99.5)
	Yes	0 (0.0)	4 (0.5)	4 (0.5)
Gold	No	575 (71.9)	198 (24.8)	773 (96.6)
	Yes	12 (1.5)	15 (1.9)	27 (3.4)
Real Estate	No	553 (69.1)	194 (24.3)	747 (93.4)
	Yes	34 (4.3)	19 (2.4)	53 (6.6)

Source: *Primary survey*
Note: *Figures in parentheses shows the percentage of respondents*

The crosstabulation of investment avenues used by high and low financial literacy groups is shown in Table 6.10. As mentioned earlier, it is clear from the table that investment behaviour is not so encouraging among the respondent i.e., less than half per cent of the respondents investing in different avenues as shown in Table 6.5. It is clear from Table 6.10 that people are more into deploying their money in bank deposits like recurring deposits and fixed deposits, the majority of 46.5% of the respondents out of the total sample had opted in this particular avenue. The next popular investment avenues were found to be insurance and a provident fund where 40.3% and 22.8% of the respondents had invested their money respectively. In terms of the lowest preferred investment avenues, it was observed that the foreign exchange market was the least preferred one as only 0.1% of respondents had invested in it. It was followed by derivatives, commodity market, debenture and bond where 0.8%, 0.9% and 0.9% of the respondents had invested their money.

Furthermore, regardless of the different investment avenues which respondents had put their money into, the results revealed that the respondents overall financial literacy was low. Nevertheless, those with high financial literacy were slightly more likely than those with poor financial literacy to investing in real estate (7.4%), government securities (1.9%), derivatives (0.5%), mutual funds (3.0%), foreign exchange market (0.1%), debenture and bond issues (0.5%), than those with low financial literacy. It is most likely due to the level of knowledge needed to invest in such financial products and services.

Table 6.10: Investment Avenues and Financial Literacy

Investment Avenues	Responses	Level of financial literacy		Total
		Low	High	
Debenture and bond	No	584 (73.0)	209 (26.1)	793 (99.1)
	Yes	3 (.4)	4 (.5)	7 (.9)
Shares	No	579 (72.4)	207 (25.9)	786 (98.3)
	Yes	8 (1.0)	6 (.8)	14 (1.8)
Foreign exchange market	No	587 (73.4)	212 (26.5)	799 (99.9)
	Yes	0 (0.0)	1 (0.1)	1 (0.1)
Mutual fund	No	564 (70.5)	189 (23.6)	753 (94.1)
	Yes	23 (2.9)	24 (3.0)	47 (5.9)
Insurance	No	401 (50.1)	77 (9.6)	478 (59.8)
	Yes	186 (23.3)	136 (17.0)	322 (40.3)
Bank deposit	No	364 (45.5)	64 (8.0)	428 (53.5)
	Yes	223 (27.9)	149 (18.6)	372 (46.5)
Derivatives	No	585 (73.1)	209 (26.1)	794 (99.3)
	Yes	2 (0.3)	4 (0.5)	6 (0.8)
Government securities	No	575 (71.9)	198 (24.8)	773 (96.6)
	Yes	12 (1.5)	15 (1.9)	27 (3.4)
Provident funds	No	489 (61.1)	129 (16.1)	618 (77.3)
	Yes	98 (12.3)	84 (10.5)	182 (22.8)
Post office saving schemes	No	512 (64.0)	150 (18.8)	662 (82.8)
	Yes	75 (9.4)	63 (7.9)	138 (17.3)
Pension plan	No	491 (61.4)	153 (19.1)	644 (80.5)
	Yes	96 (12.0)	60 (7.5)	156 (19.5)
Chit funds	No	577 (72.1)	212 (26.5)	789 (98.6)
	Yes	10 (1.3)	1 (0.1)	11(1.4)
Real estate	No	533 (66.6)	154 (19.3)	687 (85.9)
	Yes	54 (6.8)	59 (7.4)	113 (14.1)
Precious metals	No	578 (72.3)	205 (25.6)	783 (97.9)
	Yes	9 (1.1)	8 (1.0)	17 (2.1)
Commodity market	No	582 (72.8)	211(26.4)	793 (99.1)
	Yes	5 (0.6)	2 (0.3)	7 (0.9)
Local ornaments	No	550 (68.8)	204 (25.5)	754 (94.3)
	Yes	37 (4.6)	9 (1.1)	46 (5.8)

Source: *Primary survey*
Note: *Figures in parentheses shows the percentage of respondents*

Table 6.11 shows a cross-tabulation of the saving and investing purposes prioritized by high and low financial literacy groups. Out of the total purposes mentioned in the table, the majority of respondents (95.9%) prioritized their daily household expenditures for saving and investing, followed by 90.3% who prioritized their children's education as one of the most important reasons to save and invest. It is followed by 75.6% of the respondents

who prioritized health care as a reason for saving and investment, and then by 74% of the total sample in this category who prioritized house building.

Table 6.11: Priorities placed on Purposes and Financial Literacy

Purposes	Responses	Level of financial literacy		Total
		Low	High	
Children Education	1	20 (2.5)	8 (1.0)	28 (3.5)
	2	33 (4.1)	17 (2.1)	50 (6.3)
	3	534 (66.8)	188 (23.5)	722 (90.3)
Daily Household Expenses	1	9 (1.1)	4 (.5)	13 (1.6)
	2	16 (2.0)	4 (.5)	20 (2.5)
	3	562 (70.3)	205 (25.6)	767 (95.9)
Children Marriage	1	301 (37.6)	126 (15.8)	427 (53.4)
	2	87 (10.9)	25 (3.1)	112 (14.0)
	3	199 (24.9)	62 (7.8)	261 (32.6)
Construction of House	1	91 (11.4)	36 (4.5)	127 (15.9)
	2	60 (7.5)	21 (2.6)	81 (10.1)
	3	436 (54.5)	156 (19.5)	592 (74.0)
Social Ceremonies	1	269 (33.6)	94 (11.8)	363 (45.4)
	2	102 (12.8)	37 (4.6)	139 (17.4)
	3	216 (27.0)	82 (10.3)	298 (37.3)
Comfortable Life	1	85 (10.6)	12 (1.5)	97 (12.1)
	2	151 (18.9)	41 (5.1)	192 (24.0)
	3	351 (43.9)	160 (20.0)	511 (63.9)
Health Care	1	87 (10.9)	15 (1.9)	102 (12.8)
	2	77 (9.6)	16 (2.0)	93 (11.6)
	3	423 (52.9)	182 (22.8)	605 (75.6)
Repayment of Debt	1	202 (25.3)	77 (9.6)	279 (34.9)
	2	120 (15.0)	25 (3.1)	145 (18.1)
	3	265 (33.1)	111 (13.9)	376 (47.0)
To meet contingency	1	107 (13.4)	35 (4.4)	142 (17.8)
	2	94 (11.8)	21 (2.6)	115 (14.4)
	3	386 (48.3)	157 (19.6)	543 (67.9)
Generate Future Income	1	218 (27.3)	54 (6.8)	272 (34.0)
	2	94 (11.8)	24 (3.0)	118 (14.8)
	3	275 (34.4)	135 (16.9)	410 (51.3)

Source: *Primary survey*
**1= Low/Very low, 2=Neutral, 3= Very high/High*
Note: *Figures in parenthesis shows the percentage of respondents*

The table also showed that children's marriage was given the least amount of importance (32.6%). The majority of them did not have a financial plan in mind for their children's marriages, and some also believed that children should manage or arrange their own finances for their marriage. However, it was discovered that some households, especially in rural areas, kept animals (e.g., mithuns, cows, pigs etc.) for marriages. Another less

important purpose was for social ceremonies (37.3%), which was followed by debt repayment (47%) and generating future income or investment (51.3%). The results show that the majority of the respondents irrespective of priorities they placed on saving and investment purposes have low financial literacy.

Table 6.12 shows a crosstabulation of the factors that high and low financial literacy groups considered before saving and investing. The table also shows that in each group of factors that were considered before saving or investing, the majority of respondents had low financial literacy. It is clearly seen in the table that the highest number of the respondents (92.4%) sought the safety of principle when saving or investing their money. It was followed by low-risk saving or investment options, which received 87.9% of the total sample's responses. When it came to save and investing, 62.8% prioritized prompt return, led by regular return (57.6%), liquidity (54.6%), high returns (45.1%), and marketability (40.9 %).

Total 6.12: Factors Considered before Saving and Investment and Financial Literacy

Factors	Responses	Level of financial literacy		Total
		Low	High	
Safety of Principle	1	7 (0.9)	3 (0.4)	10 (1.3)
	2	49 (6.1)	2 (0.3)	51 (6.4)
	3	531 (66.4)	208 (26.0)	739 (92.4)
Low Risk	1	18 (2.3)	6 (0.8)	24 (3.0)
	2	67 (8.4)	6 (0.8)	73 (9.1)
	3	502 (62.8)	201 (25.1)	703 (87.9)
Regular Returns	1	77 (9.6)	34 (4.3)	111(13.9)
	2	197 (24.6)	31 (3.9)	228 (28.5)
	3	313 (39.1)	148 (18.5)	461 (57.6)
High Returns	1	128 (16.0)	68 (8.5)	196 (24.5)
	2	198 (24.8)	45 (5.6)	243 (30.4)
	3	261 (32.6)	100 (12.5)	361(45.1)
Liquidity	1	78 (9.8)	30 (3.8)	108 (13.5)
	2	215 (26.9)	40 (5.0)	255 (31.9)
	3	294 (36.8)	143 (17.9)	437 (54.6)
Marketability	1	110 (13.8)	45 (5.6)	155 (19.4)
	2	262 (32.8)	56 (7.0)	318 (39.8)
	3	215 (26.9)	112 (14.0)	327 (40.9)
Prompt Return	1	46 (5.8)	11 (1.4)	57 (7.1)
	2	210 (26.3)	31 (3.9)	241 (30.1)
	3	331 (41.4)	171 (21.4)	502 (62.8)

Source: *Primary survey*
**1= Low/Very low, 2=Neutral, 3= Very high/High*
Note: *Figures in parenthesis shows the percentage of respondents*

Table 6.13 displays the source of information where respondents with different levels of financial literacy search for saving and investment queries frequently. The table shows that, of all the sources, the highest number of respondents sought general advice from family, relatives, friends or colleague. It was ranked first by 66.5% of respondents. Similarly, the same per cent (66.5%) of the respondents went for the best buying option, which was followed by people who took decisions based on previous experiences. The table also reveals that people hardly look for information in newspapers and magazines (1.8%). Here we can see high financial literacy group (1.1%) were using this source slightly more than the low level of the financial literacy group (0.6%). It was followed by general advertisement and television (6.5%).

Total 6.13: Sources of Information and Financial Literacy

Sources	Responses	Level of financial literacy		Total
		Low	High	
General advice	1	400 (50.0)	132 (16.5)	532 (66.5)
	2	158 (19.8)	57 (7.1)	215 (26.9)
	3	29 (3.6)	24 (3.0)	53 (6.6)
Best buy guidance	1	400 (50.0)	132 (16.5)	532 (66.5)
	2	158 (19.8)	57 (7.1)	215 (26.9)
	3	29 (3.6)	24 (3.0)	53 (6.6)
Own previous experience	1	206 (25.8)	114 (14.3)	320 (40.0)
	2	346 (43.3)	82 (10.3)	428 (53.5)
	3	35 (4.4)	17 (2.1)	52 (6.5)
General advertisement and television	1	30 (3.8)	22 (2.8)	52 (6.5)
	2	28 (3.5)	19 (2.4)	47 (5.9)
	3	529 (66.1)	172 (21.5)	701 (87.6)
Newspaper and magazine	1	5 (.6)	9 (1.1)	14 (1.8)
	2	11(1.4)	4 (.5)	15 (1.9)
	3	571 (71.4)	200 (25.0)	771 (96.4)

Source: *Primary survey*

** 1=Rank 1 and 2, 2= Rank 3, 3= Rank 4 and 5*

Note: *Figures in parenthesis shows the percentage of respondents*

6.4 Impact of Financial Literacy on Saving and Investment Behaviors:

A logistic regression analysis was used to examine the effect of financial literacy on saving and investing behaviours. The analysis has been done in two parts to identify the relation between two variables. First, the linkage between overall financial literacy on saving and investment behaviour was analyzed and then then relationship between three components of financial literacy (financial knowledge, financial behaviour, financial attitude) and

saving and investment behaviour was analyzed. The same analysis has also been performed to compare the performance of rural and urban areas in the following sections.

Ordinal logistic regression is used when the dependent variable category must be ranked (OLR). To get the maximum likelihood estimation, it transforms the dependent variable in the logit function. The logit model predicts whether or not an event will occur using the natural log of the dependent variable.

The OLR model is a logistic regression extension that is best suited for analysing nominal or ordinal data. Because the dependent variable cannot be assumed to be regularly distributed or as interval data, the OLR approach is the most appropriate and practical tool for analysing the influence of independent variables on a rank order dependent variable (Lawson & Montgomery, 2006).

The dependent and independent variables in ordinal logistic regression are not assumed to have a linear relationship. It does not take homoscedasticity into consideration. The significance of each independent variable is tested via Wald statistics.

The logistic regression was used to test the following assumptions.

H_0: There is no significant influence of financial literacy level of respondent on their saving and investment behaviour.

H_1: There is a significant influence of financial literacy level of respondent on their saving and investment behaviour.

6.4.1 Impact of Overall Financial Literacy on Saving and Investment Behaviors

The summary of case processing is shown in Table 6.14. In this analysis, a total of 800 cases were considered for logistic regression, as shown in the table. As previously stated, the amount of saving and investment has been calculated using a ranking, which was divided into negative, neutral, and positive categories. Similarly, in chapter 4 how financial literacy was classified as high or low has already been discussed. The independent variable used for the ordinal logistic regression is financial literacy level, and the dependent variable is the saving and investment behaviour of the sample respondents.

Table 6.14: Data summary

	Variables	N	Marginal Percentage
Level of saving investment behaviour	Negative	237	29.6%
	Neutral	358	44.8%
	Positive	205	25.6%
Financial literacy	Low	587	73.4%
	High	213	26.6%
Valid		800	100.0%
Missing		0	
Total		800	

Table 6.15 shows whether the model helps us predict the outcome better. The model fitting information must be determined before looking at the effects of each explanatory variable in the model. This output table also includes the -2-Log likelihood for an intercept only (or null) model as well as the full model (with all predictors). A likelihood ratio Chi-square test is also included in the table to see whether there is a significant improvement in the Final model than the intercept only model in terms of fit.

The Final model provides a considerable improvement over the baseline intercept-only model, as evidenced by the significant chi-square value ($p<0.001$). The final model fits substantially better than the null model in this case ($x^2(1) = 96.137$, $p<.001$). This suggests that the model gives a better prediction than merely guessing based on the marginal probabilities of the outcome categories.

Table 6.15: Model Fit

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	121.904			
Final	25.768	96.137	1	.000

Table 6.16: Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	2.372	1	.124
Deviance	2.431	1	.119

The deviance and Pearson Chi-square tests, which are used to determine whether a model fits the data well or not, are included in the Goodness of Fit table. The model is well-fitting the data if the test results are non-significant (Petrucci, 2009; Field, 2018). To put it another way, the purpose of these statistics is to see if the observed data match the fitted model. It starts with the null hypothesis, which states that the fit is good. If this hypothesis is not

rejected (i.e., if the P-value is large), the data and model predictions may be identical, implying that the model is good.

Nevertheless, if the hypothesis of a good fit is rejected, predictably if p<.05, then the model is not well fitted to the data. The Pearson Chi-square test (χ^2 (1) = 2.372, p=.124) and the deviance test (χ^2 (1) = 2.431, p=.119) were both non-significant in our findings. Therefore, the results suggest that model fit is good.

Table 6.17: Pseudo R-Square

Cox and Snell	.113
Nagelkerke	.128
McFadden	.056

The coefficient of determination R^2 is the index for model fit in linear regression models. "It is a ratio of the variance explained by the model to the total variance. It indicates how much of the variation in the dependent variable is accounted for by an independent variable or a set of independent variables" (Xing, 2016, p.150). In logistic regression, multiple pseudo-R measures are used, similar to R^2 in linear regression. However, in logistic regression, these pseudo-R measures are interpreted differently than in linear regression (Xing, 2016). The following are the three primary measures used an ordinal logistic regression:

1. The likelihood ratio R^2: the likelihood ratio R^2, written as R^2L, is also known as McFadden's R^2. It is the reduction in deviance from the fitted model (D_m) to the null model that only contains the intercept (D_0) (Xing, 2016).
2. Cox and Snell R^2: Cox and Snell's $R^{2,}$ written as R^2_{ML}, is also known as the maximum likelihood R^2. It is based on the likelihood function of the fitted model (L_m) and model, which only contains the intercept (L_0) (Xing, 2016).
3. Nagelkerke R^2: This is also called Cragg and Uhler's R^2. It is an adjustment to Cox and Snell's R^2 by dividing the maximum value of Cox and Snell's R^2. (Xing, 2016)

The coefficient of determination is estimated using the three measures. Cox and Snell's R-square is limited in such a way that it cannot equal 1.0, even if the model perfectly fits the data (Malholtra & Dash, 2016). As a result, Nagelkerke R square suggested a modification to the index that allows it to take values in the entire 0 to 1 range. McFadden's R-square is another version that uses log-likelihood kernels for both the intercept-only and full estimated models. These measures, like the coefficient of determination in linear

regression models, seek to summarise the proportion of variance in the dependent variable related to the independent variables.

Nagelkerke's R^2 is the most widely used and reported measure of Pseudo R-square among other measures (Impact & Investment, n.d.). The R^2 of Nagelkerke is usually higher than the Cox and Snell measures. Table 6.17 indicates that Nagelkerke's R^2 value for the current study was (.128), indicating a 12.8 % relationship between the predictors and the prediction or a high degree of percentage variance is explained by the independent variables.

Table 6.18: Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[SI= 0]	-2.064	.154	179.137	1	.000	-2.366	-1.762
	[SI= 1]	.067	.132	.260	1	.610	-.192	.327
Location	[FL=0]	-1.512	.160	89.078	1	.000	-1.825	-1.198
	[FL=1]	0			0			

In the table above, the regression coefficients and significance tests for each of the model's independent variables are listed. The regression coefficients simply represent the predicted change in log odds of being in a higher (rather than lower) group/category on the dependent variable for each unit increase on the independent variable (controlling for the remaining independent variables).

In the table 6.18 second column, a positive Estimate (b) means that for every one unit increase in an independent variable, the log odds of falling at a higher level of the dependent variable is expected to increase (by a certain amount). More broadly, this means that as scores on an independent variable rise, the likelihood of falling to a higher level on the dependent variable rises as well.

Negative estimate (b) interpreted as for every one unit increase in an independent variable, the log odds of dropping to a higher level of the dependent variable are expected to decrease (by a certain amount). More broadly, this means that as scores on an independent variable rise, the likelihood of falling to a higher level on the dependent variable decreases.

The coefficient’s p-values are shown in column 6. They are based on the predictor’s Wald test statistics, which are determined by dividing the square of the predictor's estimate by the square of the predictor's standard error. The p-value, which is characterized as the

likelihood that a particular Wald test statistic is as extreme as, or more so than, what has been observed under the null hypothesis, is presented here. The Wald test statistic for the predictor level of financial literacy is 89.078 with a p-value of 0.0001. The null hypothesis is rejected if the alpha level is set to 0.05, implying that the regression coefficient for financial literacy level is statistically different from zero in predicting saving and investing behaviour.

As shown in the table, financial literacy is found to be significantly linked to saving and investing behaviour. The co-efficient of low financial literacy is negative (-1.512), indicating that with every one unit rise in low financial literacy, the log odds of being in a higher level of the dependent variable are expected to decrease by -1.512. In other words, a respondent with a low financial literacy score will be more likely to have negative saving and investment behaviour or to engage in risky saving and investing conduct.

Table 6.19: Test of Parallel Lines

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Null Hypothesis	25.768			
General	23.337	2.431	1	.119

The test of parallel lines is another name for the proportionate odds assumption test. This test contrasts an ordinal model with a single set of coefficients for all thresholds (labelled Null Hypothesis) against a model with separate coefficients for each threshold (labelled General) (Joe Bruin, 2011). The proportional odds assumption must be rejected if the general model fits the data significantly better than the ordinal (proportional odds) model (i.e. if $p<.05$) (Strand, Cadwallader, & Firth 2011). In other words, this statistical significance is used to determine whether or not the assumption is met. The results of this study imply that the expectation is met ($p=.119$) (Crowson, 2019)

6.4.2 Impact of Financial Literacy on Saving and Investment Behaviour: Financial Knowledge, Financial Behaviour and Financial Attitude.

The summary of case processing is shown in Table 6.20 In this analysis, a total of 800 cases are considered for logistic regression, as shown in the table. As previously stated, the amount of saving and investment has been calculated using a ranking, which is divided into negative, neutral, and positive categories. Similarly, in chapter 4 how financial literacy was classified as high or low has already been discussed.

Table 6.20: Data summary

		N	Marginal Percentage
Level of saving investment behaviour	Negative	237	29.6%
	Neutral	358	44.8%
	Positive	205	25.6%
Financial Knowledge	Low	496	62.0%
	High	304	38.0%
Financial behaviour	Low	556	69.5%
	High	244	30.5%
Financial Attitude	Low	359	44.9%
	High	441	55.1%
Valid		800	100.0%
Missing		0	
Total		800	

Table 6.21: Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	208.644			
Final	80.810	127.834	3	.000

Table 6.21 indicates that the final model gives a significant improvement over the baseline intercept-only model, as evidenced by the substantial chi-square statistic ($p<0.001$). In this case, the final model's fit is significantly better than the null model (χ^2 (3) = 127.834, $p<.001$). This indicates that the model is more accurate than merely guessing based on the outcome categories' marginal probabilities.

Table 6.22: Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	10.579	11	.479
Deviance	10.553	11	.481

The results in table 6.22 show that suggest good model fit as both the Pearson Chi-square test (χ^2 (11) = 10.579, p=.479) and the deviance test (χ^2 (11) = 10.553, p=.481) were non-significant.

Table 6.23: Pseudo R-Square

Cox and Snell	.148
Nagelkerke	.167
McFadden	.075

The logistic model explains 14.8% of the variation in the dependent variables, as shown in table 6.23. The Nagelkerke's R^2 value was also found to be (.167), suggesting a good

16.7 % relationship between the predictors and the prediction or high level of percentage variance is explained by the independent variables.

Table 6.24: Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[SI= 0]	-2.389	.170	196.306	1	.000	-2.723	-2.055
	[SI= 1]	-.185	.144	1.670	1	.196	-.467	.096
Location	[FK=0]	-.542	.146	13.715	1	.000	-.829	-.255
	[FK=1]	0			0			
	[FB=0]	-1.451	.159	82.802	1	.000	-1.764	-1.139
	[FB=1]	0			0			
	[FA=0]	-.113	.140	.652	1	.419	-.388	.162
	[FA=1]	0			0			

SI=Saving and Investment Behavior, FK=Financial Knowledge Level, FB=Financial Behavior Level, FA=Financial Attitude Level.

From table 6.24 it can be seen that out of three independent variables, financial knowledge and financial behaviour are found to be significantly related to saving and investment behaviour. The findings show that one's attitude toward finance (i.e., financial attitude) has little bearing on how much money one saves or invests. The results may be interpreted as follow:

1. Level of financial knowledge was a significant negative predictor of saving and investment behaviour. A decrease of -.542 in the log odds of a respondent having a greater degree of saving and investing behaviour is predicted for every one unit increase in low financial knowledge. This suggests that if a respondent has a low financial knowledge score, they are more likely to exhibit negative saving and investment behaviour.

2. Level of financial behaviour was a significant negative predictor of saving and investment behaviour. The coefficient is interpreted as, for every unit increase in low level of financial literacy, there is a predicted decrease of -1.451 in log odds of being in a higher level of the dependent variable (saving and investment behaviour).

3. Level of financial attitude was found to be a non-significant predictor of saving and investment behaviour in the model.

Table 6.25: Test of Parallel Lines

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Null Hypothesis	80.810			
General	79.929	.881	3	.830

Table 6.25 indicates that since the Chi-Square statistic is greater than the P-Value i.e., .830>.05., the proportional odds assumption appears to have been met for the current model.

6.4.3 Impact of financial literacy on saving and investment behaviour: comparison between urban and rural areas.

As discussed in chapter 4 that the level of financial literacy is low in both areas. However, when a comparison was made between the two areas, it was found that the financial literacy level of the rural area is lower than the urban area. In this section, an attempt has been made to find the impact of financial literacy on the saving and investment behaviour of the sample respondents. The three dimensions of financial literacy viz., financial knowledge, financial behaviour and financial attitude were used as the independent variables. The saving and investment behaviour score was used as the dependent variable.

6.4.3.a Urban

The data summary for the urban area is shown in table 6.26, a total of 400 cases are considered for logistic regression, as shown in the table.

Table 6.26: Data Summary

	Variables	N	Marginal Percentage
Level of saving investment behaviour	Negative	83	20.8%
	Neutral	180	45.0%
	Positive	137	34.3%
Financial Knowledge	Low	217	54.3%
	High	183	45.8%
Financial behaviour	Low	243	60.8%
	High	157	39.3%
Financial Attitude	Low	175	43.8%
	High	225	56.3%
Valid		400	100.0%
Missing		0	
Total		400	

In table 6.27 the result shows that the final model gives a significant improvement over the baseline intercept-only model with a significant chi-square value ($p<0.001$). The final

model's fit is substantially better than the null model (χ^2 (3) = 62.226, p<.001) indicating that the current model provides better predictions.

Table 6.27: Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	126.228			
Final	64.002	62.226	3	.000

The results in table 6.28 suggest good model fit as the Pearson Chi-square test (χ^2 (11) = 3.608, p=.980) as well as the deviance test (χ^2 (11) = 3.652, p=.979) were both non-significant.

Table 6.28: Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	3.608	11	.980
Deviance	3.652	11	.979

According to table 6.29, the logistic model explains 14.4 % of the variation in the dependent variables. The Nagelkerke's R^2 value was also found to be (.164), suggesting a good 16.4 % relationship between the predictors and the prediction or high level of percentage variance is explained by the independent variables.

Table 6.29: Pseudo R-Square

Cox and Snell	.144
Nagelkerke	.164
McFadden	.074

Table 6.30: Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[SI = 0]	-2.713	.233	135.636	1	.000	-3.169	-2.256
	[SI = 1]	-.464	.185	6.312	1	.012	-.825	-.102
Location	[FK=0]	-.585	.204	8.219	1	.004	-.985	-.185
	[FK=1]	0			0			
	[FB=0]	-1.256	.211	35.416	1	.000	-1.670	-.843
	[FB=1]	0			0			
	[FA=0]	-.284	.201	1.983	1	.159	-.678	.111
	[FA=1]	0			0			

SI=Saving and Investment Behavior, FK=Financial Knowledge Level, FB=Financial Behavior Level, FA=Financial Attitude Level.

Table 6.30 shows that out of three independent variables, financial knowledge and financial behaviour are found to be significantly related to saving and investment behaviour in the urban areas. The findings show that one's attitude toward finance (i.e., financial attitude) has little bearing on how much money one saves or invests. The results may be interpreted as follow:

1. Level of financial knowledge was a significant negative predictor of saving and investment behaviour. A decrease of -.585 in the log odds of a respondent having a greater degree of saving and investing behaviour is predicted for every one unit increase in low financial knowledge. This shows that a respondent scoring higher on low financial knowledge will be more likely to have less positive saving and investment behaviour.

2. Level of financial behaviour was a significant negative predictor of saving and investment behaviour. The coefficient is interpreted as, for every unit increase in low financial literacy, a -1.256 drop in log odds of being at a higher level of the dependent variable is predicted (saving and investment behaviour).

3. Level of financial attitude was found to be a non-significant predictor of saving and investment behaviour in the model.

Table 6.31: Test of Parallel Lines

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Null Hypothesis	64.002			
General	63.815	.187	3	.980

Table 6.31 indicates, that the assumption of proportional odds is held for the current model as the Chi-Square statistic is found to be higher than the P-Value i.e., .980>.05.

6.4.3.b Rural

The data summary for rural areas is shown in table 6.32, a total of 400 cases are considered for the analysis, as shown in the table.

Table 6.32: Data summary

	Variables	N	Marginal Percentage
Level of saving investment behaviour	Negative	154	38.5%
	Neutral	178	44.5%
	Positive	68	17.0%
Financial Knowledge	Low	279	69.8%
	High	121	30.3%
Financial behaviour	Low	313	78.3%
	High	87	21.8%
Financial Attitude	Low	184	46.0%
	High	216	54.0%
Valid		400	100.0%
Missing		0	
Total		400	

Table 6.33 shows that the Chi-square value is significant ($p<0.001$) demonstrating the final model gives a significant improvement over the baseline intercept-only model. It means the final model's fit is substantially better than the null model (χ^2 (1) = 46.171, $p<.001$) indicating that the current model provides better predictions.

Table 6.33: Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	121.670			
Final	75.499	46.171	3	.000

The results in table 6.34 suggest a good model fit the Pearson Chi-square test (χ^2 (11) = 18.780, p=.065), as well as the deviance test (χ^2 (11) = 19.070, p=.060), were both non-significant.

Table 6.34: Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	18.780	11	.065
Deviance	19.070	11	.060

Table 6.35 shows that the logistic model explains 10.9% of the variation in the dependent variables. The Nagelkerke's R^2 value was also found to be (.125), suggesting a good 12.5 % relationship between the predictors and the prediction or high level of percentage variance is explained by the independent variables.

Table 6.35: Pseudo R-Square

Cox and Snell	.109
Nagelkerke	.125
McFadden	.056

Table 6.36: Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[SI = 0]	-1.933	.263	53.868	1	.000	-2.449	-1.417
	[SI = 1]	.340	.238	2.032	1	.154	-.127	.806
Location	[FK=0]	-.333	.215	2.390	1	.122	-.755	.089
	[FK=1]	0			0			
	[FB=0]	-1.497	.249	36.113	1	.000	-1.985	-1.009
	[FB=1]	0			0			
	[FA=0]	.006	.198	.001	1	.975	-.382	.394
	[FA=1]	0			0			

SI=Saving and Investment Behaviour, FK=Financial Knowledge Level, FB=Financial Behaviour Level, FA=Financial Attitude Level.

Table 6.36 shows that, of the three independent variables, only financial behaviour was found to be significantly related to saving and investing behaviour in rural areas. The findings show that one's knowledge and attitude toward finance (i.e., financial knowledge and attitude) has little bearing on how much money one saves or invests. The results may be interpreted as follow:

1. Level of financial knowledge was a non-significant predictor of saving and investment behaviour in the model.
2. Level of financial behaviour was a significant negative predictor of saving and investment behaviour. The log odds of being in a higher level of saving and investment behaviour (i.e., positive behaviour with regards to saving and investment) decreases by -1.497 with every unit rise in a low level of financial literacy.
3. Level of financial attitude was also found to be not a significant predictor in the model.

Table 6.37: Test of Parallel Lines

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Null Hypothesis	75.499			
General	72.734	2.765	3	.429

Table 6.37 shows that since the Chi-Square statistic is more than the P-Value i.e., .429>.05., the proportional odds assumption seems to have held for the current model.

To summarise the above results, it can be concluded that in urban areas, respondents' financial knowledge and financial behaviour have a significant impact on their saving and investment behaviour. However, only financial behaviour influences the respondent's saving and investment behaviour in rural areas. It has also been discovered that financial attitudes in both areas do no influence on saving and investing behaviour.

6.5 Factors Affecting Saving and Investment

Respondents' responses were collected on a dichotomous scale giving 1 to 'yes' and 0 to 'no' in order to identify the factors that impact their saving and investment decisions. By analysing the results from table 6.38 and figure 6.7, it can be concluded that while saving or investing, the most important factor influencing respondents is demanding financial responsibilities such as providing for relatives in addition to own family members. The majority of 70% of respondent's financial decisions were influenced by this aspect. This component was especially visible in the research area because tribal communities live in a socialized culture. In many circumstances, relatives were financially reliant on the respondent, who were responsible for the relative's children's schooling and other financial necessities. Again, 70% of the respondents' stated that they were unable to save or invest since they do not have any additional income aside from their regular income. 60% said they didn't know much about financial products and services (lack of knowledge). Many of them were unaware of and even afraid of investing in financial products and services. The least influencing factors on respondents' saving and investment decisions were found to be complicated bank procedures (4%) and the absence of family support (10%).

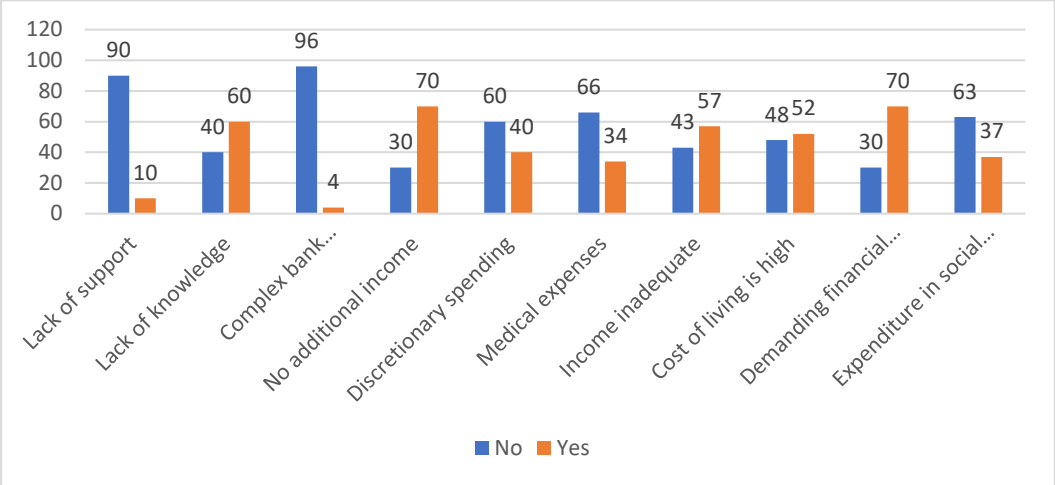
Table 6.38: Descriptive Statistics of Factors Affecting Saving and Investment

Factors	No	Yes
Lack of support	721 (90)	79 (10)
Lack of knowledge	323 (40)	477 (60)
Complex bank procedure	766 (96)	34 (4)
No additional income	241 (30)	559 (70)
Discretionary spending	481 (60)	319 (40)
Medical expenses	530 (66)	270 (34)
Income inadequate	344 (43)	456 (57)
Cost of living is high	384 (48)	416 (52)
Demanding financial responsibility	241 (30)	559 (70)
Expenditure in social events is high	505 (63)	295 (37)

Source: *Primary survey*

Note: *Figures in parenthesis shows the percentage of respondents*

Fig.6.7 Bar Chart of Factors Affecting Saving and Investment



Further analysis of the respondent's income level and saving and investing behaviour (table 6.39) is carried out to see whether the respondent's income has any bearing on their saving and investing behaviour.

Table 6.39 Income level and saving and investing behaviour

Level of saving and investing behaviour	Respondents' monthly income						
	Up to 10,000	10,001-20,000	20,001-30,000	30,001-40,000	40,001-50,000	50,001 and above	Total
Negative	138 (52.9)	37 (29.1)	26 (19.3)	7 (7.1)	12 (19.4)	17 (14.5)	237 (29.6)
Neutral	93 (35.6)	68 (53.5)	70 (51.9)	52 (53.1)	28 (45.2)	47 (40.2)	358 (44.8)
Positive	30 (11.5)	22 (17.3)	39 (28.9)	39 (39.8)	22 (35.5)	53 (45.3)	205 (25.6)
Total	261 (100)	127 (100)	135 (100)	98 (100)	62 (100)	117 (100)	800 (100)

Source: *Primary survey*
Note: *Figures in parenthesis shows the percentage of respondents*

The table shows the proportion of respondents with negative saving and investing behaviour is highest among the lowest income group i.e., up to Rs. 10,000 (52.9 %). Neutral saving and investing behaviour are seen most among income group Rs. 10,001-20,000 (53.5 %) and 30,001-40,000 (53.1 %). The highest proportion of people with positive saving and investment behaviour is comprised of respondents falling under income group Rs. 50,001 and above (45.3 %). Thus, the trend shows that people with higher income are more likely to show positive saving and investing behaviour compared to people with lower income level.

6.6 Chapter Summary

The majority of respondents had neutral saving and investment behaviour, meaning that their activity was neither favourable nor bad. When comparing negative and positive responses, the majority of respondents were found to have negative behaviour. It revealed that people have poor saving and investing habits, which could lead to future financial issues. Nevertheless, when it came to saving, the majority of respondents put their money in the bank, in-kind, or in need-based institutions. In terms of investing, it was discovered that the majority of respondents put their money into financial products such as bank deposits, insurance, and provident funds.

The majority of people prioritized their everyday home costs first, with children's marriage being the last. The safety of principle was considered to be the most important aspect examined before making any financial decision, while marketability was considered to be the least important consideration among respondents. General advice and best buy decisions were shown to be the most favored sources of information.

The theory that respondents' level of financial literacy influences their saving and investing behaviour was supported by an ordinal logistic regression model. However, in the overall study area in general and the urban area in particular, it did not support the theory that financial attitude was a predictor of saving and investment behaviour. It also rejected the theory that saving and investment behaviour in rural areas was determined by financial knowledge and attitude.

Demanding financial responsibility, a lack of additional income and a paucity of knowledge about financial services and products was found to be the main factors influencing respondent saving and investing behaviour.

CHAPTER 7

FINDINGS, SUGGESTIONS AND CONCLUSION

7.0 Introduction

The current chapter provides a summary of the study's results and findings, as well as the conclusion. The key findings and suggestions based on personal observations are also discussed. The contribution to the body of knowledge and the scope for future research are also discussed at the end.

7.1 Findings of the Study

The following is a summary of the study's findings organised according to their respective sections.

7.1.1 Assessment of Financial Literacy

1. Overall financial knowledge analysis depicts that the majority of respondents scored less in financial knowledge; 62% out of the total sample scored less than the minimum score i.e., 8 points and falls under the low financial knowledge category. That stands for around one-third of the whole sample. Only 38% of sample respondents have high scores in the financial knowledge domain.
2. Respondents' overall performance on financial behaviour showed that the majority of respondents have poor financial behaviour. The result is quite similar to the financial knowledge result, only one-third of the sample (30%) have performed well in the financial behaviour domain. 70% of respondents have poor financial behaviour.
3. The overall result of financial attitude performance is comparatively better than financial knowledge and behaviour. Around 45% of the respondents' performance was slightly low in financial attitude. 55% of respondents have a positive attitude toward their money.
4. The overall financial literacy in the study area is found to be poor. The analysis of a total of 41 questions to measure financial literacy found that out of 800 respondents, 73% respondents have low financial literacy. This implies that the financial understanding, attitude and action that is needed for their financial well-being are poorly fitted. Only 27% of respondents have high financial literacy which means they are financially competent and have good financial knowledge, attitude and behaviour.

7.1.2 Assessment of Financial Literacy: Comparison between Urban and Rural

1. The finding suggests that in both areas, financial knowledge is low. However, the rate of respondents whose financial knowledge is higher in urban than in rural areas. It is

found that 70% of the respondents in rural areas have low financial knowledge whereas it is 54% in urban areas. When it comes to a higher level of financial knowledge, respondent in the urban area is slightly higher than in rural areas, i.e., 46% and 30% respectively.

2. The majority of the respondents have poor financial behaviour in both areas, according to the financial behaviour test. 78% of respondents in rural and 61% in urban areas have scored low in the financial behaviour domain. This shows that overall financial behaviour is low, though rural areas have more respondents with low levels of financial behaviour as compared to the urban area. Out of the total respondent, 22% in rural and 39% in urban areas fall under the category of high financial behaviour. The result reveals that the majority of respondents in rural areas have poor financial behaviour as compared to those in urban areas.
3. In terms of respondents' financial attitudes in both urban and rural areas, it is found that unlike other components of financial literacy such as financial knowledge and financial behaviour, overall financial attitudes performance in rural areas is good. 54% of rural respondents have scored high in financial attitude, whereas 56% in urban areas have scored high in financial attitude. This shows that the overall financial attitude of respondents is somewhat better in both areas.
4. Overall financial literacy is not very high in both regions. It is 17% in rural and 36% in urban areas. However, when both areas are compared, the rural area performed poorer than the urban area. When it comes to low financial literacy 83% in rural and 64% in urban areas falls under this category. The result of the respondents' financial literacy level is concerning.

7.1.3 Socio-Economic and Demographic Factors and Financial Literacy Level.

1. From the result, it is observed that the majority of respondents belonging to the rural areas (83%), and 63.7% belonging to the urban areas have low financial literacy. Out of the total sample, only 26.6% of respondents had a high financial literacy level, with the majority of them belonging to the urban areas 36.2% and 17% in rural areas. Chi-square test results also complement these findings by concluding that there exists a significant association between area i.e., urban and rural where respondents lives and their financial literacy level. According to Cramer's V, the strength of the relationship between these two variables is 0.218, which is moderate.

2. Cross tabulation performed for two variables, respondent's gender and their financial literacy level found that male respondents are more financially literate than that their female counterparts. This result is in line with the studies of Harsha, (2013), Chen and Volpe, (1998). A significant relationship between respondents' gender and their financial literacy level was also discovered using the Chi-square test. The degree of association between these two variables is .075 which is weak.
3. The Chi-square test was conducted to see if there was a link between the respondents' marital status and their financial literacy level. The findings revealed that these two variables do not have a significant relationship. To put it another way, the respondents' level of financial literacy is unaffected by their marital status.
4. The cross-tabulation was performed for respondents' financial literacy and educational attainment. Overall financial literacy among respondents is low i.e., 73.4% while 26.6% of respondents had a high financial literacy level. The result suggests that respondents with the highest financial literacy were undergraduates, postgraduates, and above, accounting for 48.8% and 45.3% of all respondents in the high financial literacy category, respectively. The finding also reveals that the majority of respondents who possess low financial literacy had no formal education 96.1%, followed by respondents who had studied only up to the primary level, 86.4%, secondary level, 76.4%, and senior secondary, 68.6%.

   The Chi-square test was conducted to determine the relationship between these two variables, and the result suggests that there is a substantial link between respondents' educational level and their financial literacy. These variables are not independent of each other. Cramer's value of 0.36 indicates that there is a strong relationship between these two variables. This finding is in line with a number of studies that suggest persons with a higher degree of education have more exposure to and access to financial information (Bharucha, 2017; Caroline et al., 2016). Individuals with a university or college degree are more likely than individuals with a low level of education to be financially savvy (Thara & Ali, 2014).
5. In order to examine the association between the respondent's age and their financial literacy level, a Chi square test was carried out. The finding of the test shows that there is a strong association between the age of the respondents and their degree of financial literacy. According to Cramer's V, the degree of connection between the two variables is 0.121, indicating a weak relationship. The result of cross-tabulation between respondents' age and their level of financial literacy shows that respondents

aged 26-35 (30.4%), 36-45 (28.4%), and 46-55 (25%) had the highest financial literacy among this group. Respondents aged 56 and above had the lowest financial literacy (87.9%), followed by those aged 18 to 25. (82.8%) as far as low financial literacy is concerned.

6. Cross tabulation carried out to check the relationship between respondent's category and their level of financial literacy found that the majority of respondents under the Below the Poverty Line (BPL) category have low financial literacy 92.3%. It may be concluded that respondents who are above the poverty line 35.7% had higher financial literacy than those below the poverty line category 7.7%. The Chi-Square result also found that there is a significant association between the category of respondents and their financial literacy level. These variables are not independent of each other. A very strong relationship between the two variables is indicated by Cramer's V value of 0.29.
7. Concerning the occupation of the respondent and their level of financial literacy, the Chi-square test found that there exists a significant association. Cramer's V value of 0.26 shows there is a very strong association between the two variables. The cross-tabulation displays that out of the total, the majority of salaried respondents have high financial literacy i.e., 35.7%, professionals (30.8%), students (30%), and self-employed (28.2%). The unemployed (7.7%) and daily wager (6.7%) had the poorest rates of high financial literacy. In other words, the daily wager (93.3%), unemployed (92.3%), and other occupations (91.4%) had the highest numbers of respondents in the low financial literacy group.
8. The cross-tabulation of respondents' monthly income and their financial literacy show that out of the total, the majority of respondents in the high financial literacy group have a monthly income of 50,001 and above (48.7%), followed by respondents with income between 40,001-50,000 (48.4%). With regard to the low financial literacy, it is found that respondent with monthly income of up to 10,000 (10.7%) and 10,001-20,000 (15.7%) have lower financial literacy. It was interesting to see that the number of respondents with high financial literacy increased as their income level increased. In other words, higher-income respondents were more financially literate than lower-income respondents. The Chi-square test was employed to look into the relationship between the two variables, and the results showed that there was a significant association. Cramer's V indicates a strong association between two variables with the value of 0.35.

9. The Chi-squared test revealed that there is a strong link between respondents' household monthly income and their financial literacy when it comes to household monthly income. Cramer's V value is found to be 0.32 which means the relationship is very strong. The cross-tabulation of these two variables shows that respondents with a household monthly income of 40,001-50,000 (42.2%) and 50,001 and above (41.6%) are more financially literate than other income groups. It is also discovered that respondents with a monthly household income of up to 10,000 (94.3%) had the lowest financial literacy, followed by income groups 10,001-20,000 (84.8%).
10. The Chi-square test was carried out to investigate the relationship between their financial literacy level and their responsibility for money management. It was found that there is no significant linkage between the responsibility of money management of the respondent and the level of financial literacy. In other words, it could also be said that the financial literacy level of the respondents is independent of their responsibility for money management.
11. The cross-tabulation of two variables i.e., respondents' additional income and their level of financial literacy found that respondents with additional income were (33.2%) more financially literate than those without additional income (22.2%). The Chi-square test result also found that there is a significant relationship between the respondent's additional income and their financial literacy level. According to Cramer's V value, the strength of association between the two variables evaluated is 0.12, indicating a weak relationship.
12. The cross-tabulation performed on the respondent's workplace activity and their level of financial literacy found that majority of respondents whose nature of work is related to finance have higher financial literacy (58.6%). Respondents whose workplace activity is not financed along with those who were not employed at all were found to have lower financial literacy (25.4%). The Chi-square test result also supports the same, that there is a significant association between the respondent's nature of workplace activity and their level of financial literacy. The degree of association is found to be 0.140 which is moderate as indicated by Cramer's V.
13. With regards to respondents' family size and level of financial literacy, the result of cross-tabulation indicates that the majority of respondents with 2-4 family members (35.2%) have higher financial literacy. Whereas the lowest financial literacy is found among respondents with more than 7 family members (18.3%). The findings demonstrated that the number of family members had a substantial influence on

financial literacy. The Chi-square test also revealed a statistically significant link between a respondent's household size and their level of financial literacy. Cramer's V conducted to test the degree of association between two variables is 0.145 which means the association is moderate.

14. A Chi-square test carried out to study the relationship between the respondent's number of dependents and their level of financial literacy found that there is a statistically significant relationship between the above variables. The strength of association between two variables was measured by Cramer's V and is found to be 0.150 which mean the relationship is moderate. The cross-tabulation performed for two variables found that those respondents who have two dependents, 37.7%, had a higher financial literacy, followed by respondents with no dependents, 33.3%. It was also found respondents with more than four dependents had lower financial literacy than others (79.8%).
15. Similarly, cross-tabulation was conducted for two variables i.e., number of earning members and respondent's level of financial literacy. The result shows that the majority of respondents with four earning members in the household have more financial literacy than others 62.5%. It is also found that respondents with one, three, or two earning members in their family had the lowest percentage of high financial literacy, at 23.3%, 26%, and 27.7%, respectively. The Chi-square test used to investigate the relationship between these two variables reveals that the family's number of earning members and the respondent's level of financial literacy are linked. The Cramer's V value was found to be 0.133, indicating that the degree of association is weak.

7.1.4 The Impact of Financial Literacy on Saving and Investment Behaviour

With regards to the savings and investment behaviours of respondents in the area of the study, the overall report indicated that nearly half of the respondents (44.8%) had neutral saving and investment behaviours, implying that the majority's behaviour was neither negative nor positive. However, when comparing two classes i.e., negative and positive, the study found that the majority of the respondents (29.6%) had negative saving and investment behaviour. It demonstrates that people have poor saving and investment habits, which can contribute to financial difficulties in the future. It is also worth noting that the lowest proportion of respondents, 25.6% of the overall sample, had positive behaviour.

7.1.5 Finding of Channels of Saving and Investment Avenues

1. The channels of saving have been categorized into three parts namely, informal saving, semi-formal saving and formal saving. The result of frequency distribution shows that when it comes to informal saving, the majority of respondents prefer to save in kind 76.9% such as animals. In terms of semi-informal saving, the majority of respondents save their money via self-help groups i.e., 19.3%. With regards to formal saving, the most common mode used by respondents was the bank, where 88.4% of the respondents saved their money and the least popular channel is found to be the stock market 0.5%.
2. The analysis of various investment avenues found out that the majority of respondents have invested in banks 46.5%. It is observed that a large percentage of respondents seem to be more comfortable in investing their money in bank deposits such as recurring and fixed deposits. Furthermore, many of them were unaware of other investment options, some did not want to take financial risks, and some did not have sufficient money to invest. Insurance and provident fund were the next most prominent investment options, accounting for 40.3% and 22.8% of the total sample, respectively. The result also shows that the least popular avenues among respondents were the foreign exchange market (0.1%), which was followed by 0.8% derivatives, 0.9% and 0.9% respondents in debenture and bond and commodity market respectively. The overall result indicated that respondents' investment habits were not very encouraging.

7.1.6 Finding of Aspects Considered for Saving and Investment Behavior

Priorities placed on purposes for saving and investment behaviour

1. With regards to the priorities placed by respondents on various saving and investment purposes. The responses of the respondents were divided into three categories. Those who prioritize their purpose very high or high were rated as 3, which is a positive, neutral were given a score of 2 and very low or low priorities were given a score of 1, which is negative.
2. The result shows that the majority of respondents (90.3%) put a high priority on their children's education. Just 3.5% of the respondents placed a low priority on their children's education, while 6.3% placed neutral priorities for the same reason. This demonstrated that children's education was a vital cause to save and invest.

3. In terms of daily household expenses, it was found that 95.9% of the respondents give it the topmost priority when it comes to saving and investment. It received neutral and low priorities from 2.5% and 1.6% of the respondents, respectively.
4. The result also indicated that the majority of the respondents (53.4%) did not give so much importance to children's marriage. Just 32.6% of the respondents placed a higher priority on saving and investing money for their children's marriages. However, 14% of the respondents were neutral, indicating that they either did not put a lot of emphasis on saving or investing for their children or that they did not have any children.
5. It was also found that respondents place a higher value on house construction. The majority of respondents have placed a high priority on saving or investing money for home construction 74%.
6. In terms of social ceremonies, the majority of the respondents placed a low priority on them for saving and investing purposes (45.4%), while 37.3% placed a high priority on them and set aside money for them. However, 17.4% of the respondents were undecided about this goal.
7. The result shows that when it comes to aspiration to live a comfortable life, the majority of the respondent has given it a high priority which constitutes 63.9% of the total respondents. 24% of the respondents were undecided about this purpose, and 12.1% prioritized saving or investing money for a comfortable life lower on their priority list.
8. The result also shows that 75.6% of the respondents saved or invested money in healthcare expenses. Health care was one of their top priorities. 12.8% and 11.6% of the respondents were neutral and gave this aim low priority, respectively.
9. With regards to the repayment of the debt, it was found that 47% of the respondents kept this at a high priority level as their saving or investment purpose. 34.9% of the respondents less prioritise this purpose. 18.1% of the respondent were neutral about the purpose either because they had less or no debt.
10. When it comes to saving or investing money to meet contingency, it was found that the majority of the respondents i.e., 67.9% gave high priority to this purpose. 17.8% of the respondents were neutral and 14.4% placed a low priority on saving or investing money for contingencies.

11. Likewise, the majority of 51.3% of the respondents prioritized saving or investing money to produce future income, as seen in table 6.6. 34% placed a low priority on this goal, while 14.8% were undecided or neutral.
12. Nevertheless, when comparing overall purposes, the majority of the respondents rated daily household expenses (95.9%) as their highest priority, followed by children's education (90.3%) and healthcare (75.6%). Children's marriage (32.6%), social ceremonies (37.3%), and debt repayment (47%) were the least prioritized purposes.

Factors Considered Before Saving and Investment

1. Total 7 factors were considered for this analysis. From the result, it was found that the majority of respondents (92.4%) placed a high priority on the safety of principal money while deciding for saving or investing their money. It was given neutral importance by 6.4% of the respondents, whereas it was given low priority by 1.3%.
2. It was also observed that 87.9% of the respondents placed a high priority on the low-risk factor when making financial decisions. However, 9.1% were neutral, and 3% placed a low value on this factor.
3. With regard to regular returns, it was found that 57.6% of the respondents placed high priorities on it. 28.5% were neutral, while 13.9% of the respondents gave low priority to regular returns.
4. In terms of the high return factor, the result shows that nearly half of the respondents (45.1%) prioritized it when evaluating different saving and investment products or services. 30.4% were undecided or neutral, while 24.5% gave it a low priority.
5. It was also found out that the majority of respondents (54.6%) placed a high priority on liquidity, followed by 31.9% who were neutral, and 13.5% who placed a low priority on high returns as a factor in saving and investment decisions.
6. Nearly half of the respondents (40.9%) placed a high priority on marketability. It was followed by those who were neutral about this factor (39.8%) and those who assigned this factor less important when making financial decisions (19.4%).
7. Again, the majority of the respondents (62.8%) placed a high value on the last factor, prompt return. 30.1% were neutral and 7.1% were less bothered about getting prompt return on their saving and investment.
8. Overall, the findings suggest that when it comes to saving and investing, respondents are most concerned with the protection of their principal amount (92.4%). Low risk

(87.9%) and prompt returns (62.8%) came in second and third, respectively. Marketability (40.9%) and a high return (45.1%) were found to be the least evaluated characteristics.

Source of Information

1. The respondents were directed to rank the 5 sources of information they use the most while deciding on saving and investment. From the result, it was found that general advice was the most commonly used source of information by the majority of respondents (66.5%). Means majority of respondents often seek advice from peers, acquaintances, co-workers, and family members on matters of saving and investing. This source was ranked second by 26.9% of the respondents. Just 6.6% of the respondents rated this source third, indicating that they considered general advice to be the last source of information when making financial decisions.
2. With respect to best buy guidance, the result was similar to general advice. Means, majority of the respondent (66.5%) mostly preferred best buy guidance and approach bank staffs, financial advisors, agents, financial literacy or awareness programmes etc. whereas 26.9% kept this source in the second rank and 6.6% in the third rank.
3. It is also observed that when it comes to the prior experience of the respondents, more than half of the respondents (53.5%) rated it as the second most reliable source of information. 40% of respondents keep their previous experiences first. Only 6.5% ranked own previous experience as the third most reliable source of information.
4. The result also shows that general television advertising was not a common source of information for saving and investment decisions. The majority of respondents 87.6% ranked this source as the third and last option for seeking information regarding finance. Just 6.5% of the respondents gave it a higher ranking. It was ranked second by 5.9% of respondents.
5. Similarly, newspapers and magazines were observed to be the least popular information source among the respondents when it came to saving and investment. The majority of respondents (96.4%) ranked it third, indicating that they don't rely on these sources for information when making financial decisions. Just 1.8% and 1.9% of the respondents, respectively, ranked it first and second.
6. The most common sources of information, according to the overall results, was found to be general advice and best buy guidance.

7.1.7 Cross Tabulation

Saving and Investment Behaviour

1. In order to identify the relationship between different aspects considered for saving and investment behaviour of individuals and their levels of financial literacy, cross-tabulations were carried out and result were analysed.
2. The cross-tabulation of saving channels used by the respondents and their financial literacy level demonstrates shows that the majority of respondents in the informal saving category (76.9%) saved in kind, with 56.3% having low financial literacy and 20.6% having high financial literacy.
3. It is found that the semi-informal saving mode was not very popular. Out of the total respondents who are using these channels, the majority had low financial literacy, 15.6% in a self-help group, 1.5% in microfinance institutions and 1.0% in the joint liability groups.
4. When it comes to formal saving it was found that as compared to other formal saving channels, the majority of respondents who save in a bank have lower financial literacy 63%, only 25.4% fell under the high financial literacy category.
5. The crosstabulation was performed for investment avenues used by respondents and their level of financial literacy. The result shows that overall investment behaviour is not so encouraging among the respondent i.e., less than half percentage of the respondents investing in different avenues. It is found those who are investing money more into bank deposits like recurring deposits and fixed deposits, the majority of 46.5% have invested in banks. In terms of the lowest preferred investment avenues, it was observed that the foreign exchange market was the least preferred one as only 0.1% of respondents had invested in it.
6. Moreover, it was discovered that respondents who had high financial literacy were slightly more probable to participate in certain investment avenues such as real estate (7.4%), government securities (1.9%), derivatives (0.5), mutual funds (3.0%), foreign exchange market (0.1%), debenture and bond issues (0.5%), than those with low financial literacy. It is most likely due to the level of knowledge needed to invest in such financial products and services.

Priorities on Purposes

1. The cross-tabulation was carried on to see the relationship between respondents' priorities on purposes for their saving and investing decision and their financial literacy level. The result shows that majority of the purposes got good responses from the respondent. Of the purposes listed in the study, the majority of respondents prioritized their daily household expenditures for saving and investing. This is followed by those who prioritized their children's education as one of the most important reasons to save and invest. It is followed by the respondents who prioritized health care as a reason for saving and investment, and then by the respondents who prioritized house building.

   The result also showed that children's marriage was given the least amount of importance (32.6 %, n=261). The majority of them did not have a financial plan in mind for their children's marriages, and some also believed that children should manage or arrange their own finances for their marriage. However, it was discovered that some households, especially in rural areas, kept animals (e.g., mithuns, cows, pigs etc.) for marriages. Another less important purpose was for social ceremonies (37.3%), which was followed by debt repayment (47%) and generating future income or investment (51.3%). Unfortunately, the results show that the majority of respondents who placed a high priority on all purposes for saving and investing had low financial literacy.

Factors Considered before Saving and Investment

1. The crosstabulation of the factors considered by respondents before making saving and investment decision and their financial literacy level depicts that in each group of factors that were considered before saving or investing, the majority of respondents had low financial literacy.
2. It is found that the majority of respondents (92.4%) sought the safety of principle when saving or investing their money and out of its majority of 66.4% persons have low financial literacy. Similarly, in the low-risk factor, the majority of respondents have low financial literacy (62.8%). Even in the least considered factor i.e., marketability, the majority have low financial literacy.

Source of Information

1. The cross-tabulation was conducted to find the association between the source of information preferred by respondents and their level of financial literacy. The result demonstrates that out of all sources, most of the respondents usually take general advice from family, relatives, friends or colleagues. 66.5% of the respondents have ranked it first. Similarly, the same per cent (66.5%) of the respondents went for the best buying option, which was followed by people who took decisions based on previous experiences. It is also found that people hardly look for information in newspapers and magazines (1.8%). Here we can see high financial literacy group (1.1%) were using this source slightly more than the low level of the financial literacy group (0.6%). It was followed by general advertisement and television (6.5%).

7.1.8 Finding for Logistic Regression to find the Impact of Financial Literacy on Saving and Investment Behaviors

1. The ordinal logistic regression was performed to predict the saving and investment behaviour of respondents by using their degree of financial literacy. The analysis has been carried out in two parts to identify the relation between two variables. First, the link between overall financial literacy and saving and investing behaviour was examined. Next, the relationship between three components of financial literacy and saving and investment behaviour were analyzed. The same analysis was performed to compare the performance of rural and urban areas.
2. The theory that the respondent's level of financial literacy influences their saving and investing behaviours was supported by an ordinal logistic regression model. However, in the overall study area in general and the urban area in particular, it did not support the theory that financial attitude was a predictor of saving and investment behaviour. It also rejected the theory that saving and investment behaviour in rural areas was determined by financial knowledge and attitude.

7.1.9 Factors Affecting Saving and Investment

1. Data were collected on a dichotomous scale to determine the factors that influence their saving and investment decisions. From the result, it is found that the most important factor that influence respondents' saving and investment habits is their 'demanding financial responsibilities.' Most of the sample respondents had to provide for their relatives' financial needs in addition to their own family members. The

majority of 70% of respondents' financial decisions were influenced by this aspect. This component was especially visible in the research area because tribal communities live in a socialized culture. In many circumstances, relatives were financially reliant on the respondent, who were responsible for the relative's children's schooling and other financial necessities.

2. It is found that another major reason for not saving or investment money was not having an additional income. 70% of the respondents stated that they were unable to save or invest since they do not have any additional income aside from their regular income. Lack of knowledge about financial products and services was another major problem that 60% of the respondents were facing. Many of them were unaware of and even afraid of investing in financial products and services.
3. The least influencing factors on respondents' saving and investment decisions were found to be complicated bank procedures (4%) and absence of family support (10%).

7.1.10 Findings Through Observation

Following are some self-observations related to lack of financial literacy and saving/investment behaviour done during fieldwork:

1. No access to the internet, no proper roads and lack of proximity to the Bank are observed in some villages, which are some of the major reasons for respondents' unawareness about financial products and services. Non-availability of transportation seems to be another problem in some far-flung villages due to which they cannot go to banks or any other financial institutions.
2. The majority of respondents in rural areas are unemployed or are engaged in agriculture. Since their source of income is irregular, they usually don't think more than keeping/using the money for daily household expenses even though they have some ideas about saving and investment. As a result, their saving and investment habit is poor.
3. Another interesting thing found in the study area is the practice of giving donations between the clans for different purposes like wedding ceremonies, medical issues or any other problems. Individuals belonging to a particular clan have to help each other in times of need by contributing in cash or kind. The amount of contribution is fixed according to the status and income of the person. Such contribution is a kind of an obligation though not mandatory. This way they get help from each other when they

are in need. In some instances, it was seen that people take loan also to give their share of contribution, mostly from traditional socio-economic organization e.g., friendship fund, clan fund etc.

Though such practice is helpful but sometimes this practice affects the household budget according to some respondents.

4. Buying housie tickets is another practice that is very common in the urban areas of upper Subansiri. And now due to pandemic, this practice has become rampant in some parts of the study area.
5. Education is one of the important ways to augment financial awareness among students and through them to their parents. However, it was observed that school is either not giving financial education or it is not functioning at all due to the unavailability of teachers or infrastructure in rural areas. It is mostly affecting poor children who can't afford private schools or go to some other places to study in government schools.
6. It is also observed that the government's effort on financial literacy is not so effective at the ground level in the study area. The majority of respondents have hardly heard about financial awareness programmes. Most of the sample respondents (92.5%) did not participate in any financial literacy programmes in the study area according to the findings. The percentage of persons who do not participate in such programmes is 95.5% in urban and 89.5% in rural areas.

   Further, FLCC programme seems to be non-effective though the numbers of participants according to the banks' reports are high. However, those who attend the programme just open a bank account; but this doesn't guarantee that they will do well with their money. RBI also publishes or distributes pamphlets, comic books on financial education etc. which are hardly read or seen by any respondents. Forget about courses or videos available on websites of various stakeholders on financial education, where respondents have less digital knowledge and have internet connectivity issues, it is impractical to expect people to learn from these platforms.

7.2 Suggestions

The researcher proposes the following suggestions based on the empirical findings of the study to various stakeholders viz. financial education providers, individuals, policymakers, and regulatory bodies to promote financial literacy. The suggestions are mostly based on the conditions present in the research area during the study period.

1. Despite many measures initiated by RBI, SEBI, IRDAI and PFRDA towards increasing financial literacy, the empirical findings of the study show that 73 % of the individuals surveyed in the 3 districts of Arunachal Pradesh have low financial literacy.

   As a result, it is advised that regulatory agencies committed to providing financial literacy should facilitate training to the general public focusing on the micro-level segment of persons in both urban and rural areas.
2. The empirical finding shows that rural respondents (83%) are poorer in financial literacy than urban respondents (64%). It is suggested that the government should focus on improving rural people's financial literacy on a regular basis and assess their progress. By uplifting rural areas, our country's economic development will benefit in the long run. Previously study (Abdul Azeez & Nasira Banu, 2021; Jayanthi & Rau, 2019) in other regions also suggests the same.
3. More efforts should be employed to improve the knowledge and behaviour of the people toward finance. One of the primary causes of inadequate financial literacy was discovered to be a lack of financial knowledge and behaviour in the study area.
4. According to the findings of the current study, the vast majority of sample respondents (92.5%) did not participate in any financial literacy programmes in the study area. The percentage of persons who do not participate in such programmes is 95.5% in urban and 89.5% in rural areas. Following suggestions are proposed to the policymakers to improve financial literacy in both urban and rural areas.
   a) Initiatives like Financial Literacy Camps by commercial banks and other initiatives for financial awareness programs by different stakeholders should be implemented well considering the need of both areas i.e., urban and rural. Awareness should not be provided in theory only; some hands-on training sessions should be provided. Some evaluation programmes like Pre and post-program tests and follow up surveys will ensure whether the participants benefitted from the financial literacy program or not.
   b) Dramas, skits, public rallies, roadshows, films in different languages including local dialects can be shown specifically to the rural population in order to impart financial awareness and money management skills through NGOs, Self Help Groups, local governing members, educational institutions, banks etc. Further helplines in different languages including local dialects, social media, mass media can play a crucial role in

disseminating financial education at the grassroots level. Specifically, popular faces/YouTubers can be used to spread awareness through YouTube channels. It was also observed that religious leaders have a good influence on people in the study area. They can also use their platform to educate people in financial matters and help them improve their financial wellbeing.

c) Ambitious programmes like National Strategy for Financial Education 2020-2025 (NCFE) which is prepared in consultation with the four Financial Sector Regulators (viz. RBI, SEBI, IRDAI and PFRDA) and other relevant stakeholders should not be confined to paper only. Proper implementation and timely evaluation of such programme should be done so that to achieve financial wellbeing of every section of the society.

5. The findings revealed that the financial literacy level of people is associated with different socio-economic and demographic characteristics. Therefore, a one-size-fits-all approach to spread financial literacy may not be suitable, as the financial literacy level is different among people with different socio-economic and demographic characteristics. As an alternative, personalized programmes should be developed in accordance with the requirement of the specific groups. Rural people, women, illiterate/less educated, senior citizen/retired people, low age group, low-income group, daily wagers/unemployed etc. have a significant association with the level of financial literacy according to the empirical findings of this study.
6. It is critical to begin a financial education program for individuals at an earlier phase without bias. This will make sure that a saving and investing habit, as well as proper money management, is instilled in them from an early age. Financial education/personal finance/money management must be included (if not) as a key subject in the primary and secondary school curriculum. Proper training of teachers in this regard is also to be given.
7. To increase financial literacy, regulatory organizations or stakeholders can sponsor business and economics festivals in schools, colleges and universities. These programs will assess and certify students' knowledge of fundamental topics such as financial and economic terms, saving and budgeting principles, banking, taxation, and stock markets, smart investment options, basic accountancy, and entrepreneurial skills.

8. The finding evidence that there is a neutral saving and investment behaviour (44.8%) among the majority of the sample respondents. It is followed by respondents with negative behaviour (29.6%). The result shows that there is a scope for improvement in the saving and investment behaviour in the study area. This can be done through financial education as the empirical finding shows that the level of financial literacy influences the saving and investment behaviour of respondents.
    a) The study also finds that majority of sample respondents (88.4%) save in banks. Even for investment, people invest in term deposits in banks (46.5%). Given that the majority of respondents prefer to save and invest in banks, commercial banks should use a number of measures to enhance awareness. Commercial banks should not blend the financial dealings of various categories of individuals, such as students, illiterates, low-income customers etc. with those of well-educated, high-income customers. Dealings with vulnerable groups should be handled by a separate department staffed by properly trained personnel.
    b) It is also recommended that banks actively participate in the re-design of educational programmes, workshops, and training on financial matters according to the specific needs of the people, particularly in rural areas.
    c) Financial literacy and counselling centres or bank correspondents should be staffed by local people who are familiar with the culture and mindset of tribals. People learn better when they are taught by people they know and trust. Moreover, individuals chosen from the local community must be prudent and trustworthy. Proper and up-to-date training of such individuals/trainers on new financial products and services is also necessary.
9. According to the survey, the majority of sample respondents favour safe and low-risk financial goods and services. This could be one of the reasons why people do not prefer to invest in financial products such as stocks, mutual funds, and so on. A concerted effort should be made to raise awareness among potential investors. They should be appropriately taught and given diverse knowledge on financial market procedures, long-term investment parking, risk management approaches, and predicted investment growth.

10. In addition to the above suggestions on major findings, the following suggestions can also be considered:
    a) The development of a sound financial market in India requires an efficient information technology solution. Arunachal Pradesh is lagging behind in terms of network connectivity in this digitalized era. When it comes to internet access, many rural areas in Arunachal Pradesh are still underserved. Many customers and banks in rural areas have been experiencing issues with electricity and internet connectivity. In rural areas, lack of access to banks and poor road connectivity are also challenges. Thus, this issue needed to be resolved.
    b) Financial education providers through appropriate financial education and awareness, adequate protection must be reinforced to address issues of cyber security, data confidentiality, mis-selling, customer protection, and grievance redress.
    c) As part of their Corporate Social Responsibility, businesses, including local businesses, should place an emphasis on increasing community financial literacy by delivering financial education to different target groups in a more personalized manner.
    d) Financial literacy besides increasing the welfare of individuals and the economy helps in sustainability also. Financial literacy, in general, is the foundation for raising understanding of the financial industry's Environmental, Social, and Governance (ESG) effect. Understanding how financial decisions affect sustainability may influence people's willingness to think about the environmental impact of their financial decisions, and ultimately their financial product selection. Consumers who are better known in this area are more likely to invest in environmentally friendly projects or to exert greater influence over companies to make them more sustainable. Therefore, various stakeholders should keep this point in mind while developing any programmes or plan to impart financial knowledge to anyone.

7.3 Conclusion

Financial literacy is considered a substantial component of stability and economic and financial growth (Potrich et al., 2015). Several studies conducted in developed and developing countries on financial literacy shows that the level of financial literacy is low among different groups of society. The empirical findings emphasize that the financial literacy of people is needed to be improved in Arunachal Pradesh. On examining the financial literacy of people, it was found that the overall financial literacy is poor as only 27% of people were highly financial literate. While the percentage of highly financially literate is low in the urban areas (36%), it was lower in rural areas (17%) in Arunachal Pradesh. This result is really concerning and need serious attention from the government and policymakers. It is also evident from the empirical result that though 55% of people had a positive attitude toward their finance they had low financial knowledge and poor financial behaviour were found among the majority of the respondents. This suggests that policymakers and various other stakeholders of financial education need to take initiatives to improve people's financial knowledge and financial behaviour. Individuals need to be properly educated about new and existing financial products present in the global markets in order to take full advantage of better returns.

It is also observed that certain socioeconomic and demographic factors are associated with the level of financial literacy of the respondents. Respondents residing in urban areas, male, higher education attainment, age group 26-35, APL, salaried, higher monthly income, additional income source, finance-related workplace activity, small family size and fewer dependents were found to be more financially literate.

Further, neutral saving and investment behaviour was found among the majority of the sample respondents. Only 25.6% show positive saving and investment behaviour. The vast majority of respondents save or invest in traditional and secure financial products and services. According to the study, people are unable to take advantage of numerous financial products offered in the market due to demanding financial responsibilities and poor awareness levels.

People give high priority to their daily household expenses and least priority to Children's marriage. The most considered factor before saving or investing in any financial products and services is safety first and marketability is considered last. While people usually go

for general advice and best buy guidance as a source of financial information, the least used source of information is found to be newspapers.

The study also found that financial literacy significantly influences saving and investment behaviour. However, it was seen that financial attitude which is one of the components of financial literacy that do not affect the saving and investment behaviour of the respondent in both urban and rural areas. The result also shows that saving and investment in rural areas do get affected by financial knowledge and attitude.

Managing one's own finances is vital in improving an individual's financial wellbeing as well as the overall economic condition of the nation. Financial literacy is not only important for investors, but it is important for every individual. various policymakers and regulatory bodies have been trying to increase the financial literacy of people through different initiatives. However, the financial literacy level of the sample respondents is still low, according to the empirical findings of this study. Most of the sample respondents have neither heard of nor attended any of the programmes or any other initiatives to increase the level of financial literacy in the study area. the study gives clear indications about the gaps between the supply and demand sides of financial literacy, which can be improved with the collective efforts of regulatory bodies, government, NGOs, education institutions and stakeholders.

7.4 Contribution to the Body of Knowledge

The study of financial literacy is crucial as it encourages and empowers smart financial decision making. By analysing financial literacy, the current study seeks to contribute to efforts to improve financial literacy in Arunachal Pradesh. This study highlighted the level of financial literacy among the tribal people of Arunachal Pradesh and its effect on their saving and investment behaviour. The relationship between various socio-economic and demographic factors and the financial literacy level of the respondents have also been found. The study also offers some suggestions for improving financial literacy among various groups of people that can be used by various stakeholders. Following the identification of people with poor financial literacy based on the findings, suitable study material can be developed, taking into account the people's location, age group, educational background, occupation etc. The study may help in devising personalized strategies for empowering specific sub-group of people through financial education. This

research could also aid the government and various stakeholders in developing financial literacy programmes for the people of Arunachal Pradesh at the grassroots level.

7.5 Scope for Future Studies

This study is an attempt to explore the financial literacy level of households and its linkage with saving and investment behaviour with the study of determinants among the individuals of three districts of Arunachal Pradesh. The study is restricted to these three aspects. In addition, the study's geographical scope can be broadened, and new districts or areas can be investigated for future research, using the current study as a foundation. Additionally, similar studies can be done on different tribes. Future researchers can also explore the supply side of financial products or services to address the problems in achieving better financial literacy among people. A comparison of the supply and demand side of the problem may provide valuable insights. A study on the role of culture or ethnicity on financial literacy can also be studied. Performance evaluation of various financial education providers in spreading financial literacy will be another interesting and important study. Further effectiveness of various policies and programmes on financial literacy on different target groups can also be analysed in future. In future, researcher can explore further and elaborate the concepts of financial literacy, financial capability and other related concepts in respect to Arunachal Pradesh.

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ANNEXURE

Questionnaire

Dear Sir/Madam,

I would like to invite you to participate in my Ph.D. research survey which attempts to study ***Financial Literacy and its Impact on Saving and Investment Behaviour: A Study in Arunachal Pradesh***. By giving your time and honest responses, you will make valuable contribution which will be helpful for me in accomplishing my research work successfully. Kindly answer the given questions that best suit your knowledge and understanding. Please be assured of confidentiality related to the information you provide. The information provided will be used for academic purpose only.

Miss ChigingYamang
(Research Scholar, Tezpur University, Assam)

SECTION-A

Financial Knowledge

Please tick only one option for question no.1 to11:

1. Imagine that two brothers are given a gift of Rs.1,000 in total. If the brothers have to share the money equally how much does each one gets?

☐ More than 500 ☐ Exactly 500 ☐ Less than 500 ☐ Don't know/can't say

2.High inflation means that the cost-of-living increases.

☐ True ☐ False ☐ Don't know/can't say

3. Now imagine that these children have to wait for one year to get their share of the Rs.500 and inflation stays at 5%. In one year's, time will they be able to buy fewer things than they can do it today?

☐ True ☐ False ☐ Don't know/can't say

4. Imagine one day you lend Rs.1,000 to your brother and next day he gives you Rs. 1,000. Did he pay any interest on this loan?

☐ True ☐ False ☐ Don't know/can't say

5. Suppose you deposit Rs.1000 into a saving account with a guaranteed simple interest rate of 10% per year. Consider that no further deposit and withdrawal of money is done. How much would there be in the account at the end of the first year, including interest?

☐ More than Rs.1,100 ☐ Exactly Rs.1,100 ☐ Less than Rs.1,100 ☐ I do not know

6. Suppose you put Rs.1,000 into a deposit account with a guaranteed compound interest rate of 10% per year. Consider that no further deposit and withdrawal of money is done. How much would there be in the account at the end of the fifth year, including interest?

☐ More than Rs.1,500 ☐ Exactly Rs.1,500 ☐ Less than Rs.1,500 ☐ I do not know

7. An investment with a high return is likely to be of high risk.

☐ True ☐ False ☐ Don't know/can't say

8. It is better to invest your money in more than one financial product for safety.

☐ True ☐ False ☐ Don't know/can't say

9. When an investor distributes his investments among different assets, the risk of losing money:

☐ Increases ☐ Remains unchanged ☐ Decreases ☐ I do not know

10. Which asset does usually offer higher return in long period of time (e.g., 10 years)?

☐ Bank Saving Deposits ☐ Bank Fixed Deposits ☐ Stocks

☐ Insurance ☐ Real Estate ☐ Post office saving

☐ Mutual Fund ☐ I do not know ☐ Others

11. Suppose you have inherited Rs 10,000 today and your brother inherits Rs 10,000 in about 3 years. Who will get richer, because of inheritance?

☐ You ☐ Equally rich ☐ Your brother ☐ I do not know.

Financial Attitude

1. Please state your level of agreement with the following statements from strongly agree to strongly disagree

Sl.No.	Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	I tend to live for today and let tomorrow take care of itself.					
2.	I find it more satisfying to spend money than to save it for the long term.					
3.	Money is there to be spent.					
4.	I feel it is not important to set goals for the future.					
5.	I feel it is not important to have a financial plan or budget.					
6.	I feel keeping aside money each month for savings or an investment is not important.					
7.	I feel having life insurance is not an important way to secure loved ones' life.					
8.	I believe the way I manage my money will not affect my future.					
9.	I prefer to buy things on credit rather wait and save up					
10.	I am uncertain about where my money is spent.					
11.	After making a decision about money, I tend to worry too much about my decision.					
12.	I do not enjoy thinking about and have interest in reading about money management.					
13.	I feel seeking information before investing money is not important.					

Financial Behaviour

1. Please state your level of agreement with the following statements from strongly agree to strongly disagree.

Sl.No.	Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	Before buying anything, I carefully check whether I am able to pay for it.					
2.	I pay my utility bills on time.					
3.	I keep a close personal watch on my financial affairs.					
4.	I set long-term financial goals such as, e.g. children's education, purchasing a home, retirement, and try to achieve them.					
5.	I set goals to guide my financial decisions.					
6.	I always develop a budget/ financial plan for every year.					
7.	I always set aside money for special events/ occasion.					
8.	I save a part of my income every month.					
9.	I make notes and control my personal spending					
10.	I compare prices when making a purchase.					
11.	I seek information from all possible sources before making choice regarding investment.					
12.	While choosing a financial product, I consider the options from various companies/banks.					
13.	I evaluate financial products before investing money in them.					
14.	I have my money invested in more than one kind of investment.					
15.	I have too much debt right now.					
16.	I sometimes buy a lottery ticket when I feel like I don't have enough money.					

2. In the past, have you encountered a situation wherein your income did not cover for your living costs?

☐ Yes ☐ No ☐ Not Applicable

(a) If **YES**, what did you do to meet your living costs?

☐ Borrowed from family member/ relative ☐ Borrowed from employer
☐ Earned extra money ☐ Drew money out of savings/investments
☐ Sold items ☐ Availed loan/ finance/ Mortgage
☐ Missed payments ☐ Others

SECTION-B

Savings and Investment

1. What are your channels of saving?

Informal saving/ mechanisms:

☐ Saving cash at home ☐ Saving in kind ☐ Need-based institution
☐ No saving at all ☐ Others

Semi-formal saving/ mechanisms:

☐ Self-help group ☐ Microfinance institution ☐ Joint-Liability Group
☐ Not saving at all ☐ Others

Formal saving/mechanisms:

☐ Bank ☐ Post-office saving ☐ Mutual Fund ☐ Stocks
☐ Gold ☐ Real Estate ☐ Not saving at all ☐ Others

2. Out of the following, in which investment avenues have you invested?

Investment Avenues	Yes	No	Investment Avenues	Yes	No
Debenture and bond			Provident funds		
Shares			Post office saving schemes		
Foreign exchange market			Pension plan (Specify)		
Mutual fund			Chit funds		
Insurance (Specify)			Land/building (Real estate)		
Bank deposit (Recurring Deposit, Fixed Deposit)			Precious metals (Gold/silver etc.)		
Derivatives (Financial/ Commodity/ Currency)			Commodity market		
Government securities			Local Ornaments		
Others (*please specify*……)					

3. State the level of priority you place on the following saving and investment purposes.

Priorities	Very high	High	Neutral	Low	Very Low
Children's education					
Daily household expenses					
Children's marriage					
Construction of house					
Social ceremonies					
Comfortable life					
Health care					
Repayment of debts					
To meet contingency					
Generate future income					
Others (Please specify)					

4. Please state your level of priority on the following factors taken into consideration before saving and investment.

Factors	Very high	High	Neutral	Low	Very Low
Safety of the Principal					
Low risk					
Regular returns					
High returns					
Liquidity					
Marketability					
Prompt return					
Others (Please specify)					

6. Please rank the following sources of information where you search frequently for your saving and investment related queries. Please rank the top 5 sources only where, 1 means most frequently used.

Sl.No.	Sources	Rank
1.	General advice	
2.	Best buy guidance	
3.	Own previous experience	
4.	General advertisement on television	
5.	Newspaper and magazine	

7. Please tick following factors that prevent you from savings and investment.

SL. No.	Factors	No	Yes
1	Lack of support		
2	Lack of knowledge		
3	Complex bank procedure		
4	No additional income		
5	Discretionary spending		
6	Medical expenses		
7	Income is inadequate		
8	Cost of living is high		
9	Demanding financial responsibility		
10	Expenditure in social events is high		

SECTION-C

Socio-economic Status

1. Gender: ☐ Male ☐ Female **2.Marital status:** ☐ Married ☐ Unmarried ☐ Separated/Widow/Widower

3. Level of Education:
☐ Primary ☐ Secondary ☐ Senior Secondary ☐ Diploma
☐ Under graduate ☐ Post graduate and above ☐ No formal education

4. Occupation:
☐ Unemployed ☐ Professional ☐ Student ☐ Self-employed/business
☐ Retired ☐ Daily wager ☐ Salaried ☐ Others

5. Respondent's monthly income:
☐ Up to 10,000 ☐ 10,001-20,000 ☐ 20,001-30,000 ☐ 30,001-40,000
☐ 40,001- 50,000 ☐ 50,001 and Above

6. Total household's monthly income:
☐ Up to 10,000 ☐ 10,001-20,000 ☐ 20,001-30,000 ☐ 30,001-40,000
☐ 40,001- 50,000 ☐ 50,001 and Above

7. Who is responsible for financial and money management in your household?

☐ Yourself ☐ Yourself and your spouse ☐ Yourself and other member
☐ Another family member ☐ Others

8. Do you have any additional income other than regular earning? ☐ Yes ☐ No

***(a)** If **YES**, please mention the sources of earning*

☐ Agriculture ☐ Alternative business ☐ Lease of agriculture land
☐ Rent from building/lands ☐ Animal breeding ☐ Interest earned
☐ Share/stock for returns

9. Nature of your workplace activity you are working in/ with/ for:

☐ Finance related industry *(e.g., Bank, Mutual Fund, Investment co. Insurance co. etc.)*
☐ Not working in finance related industry *(other than shown above)*

10. Size of the family/ Household: ☐ 2-4 members ☐ 5-7 members ☐ More than 7 members

11. Number of dependents: ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ More than 4 ☐ None

12. Numbers of earning members: ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ More than 4

13.Name: ……

14. Place: …….

15. Area: ☐ Rural ☐ Urban

16. Community: ……..

17. Which category do you fall under? ☐ Below Poverty Line (BPL)
☐ Above Poverty Line (APL)

18. Age *(in years)***:** ☐18-25 ☐ 26-35 ☐ 36-45
☐46-55 ☐ 56-65 ☐ 66 and above

LIST OF PUBLICATION

Journal Publication

Yamang, C. & Roy, A. (In press). Review on the assessment of financial literacy across the globe. *International Journal of Business Innovation and Research. DOI:* 10.1504/IJBIR.2020.10035046

Seminars/Conferences

Yamang, C. & Roy, A. (2017). Financial Literacy and Financial Inclusion: A Study with Special Reference to North East, India. In International Management Conference on A Dynamic shift of 4 G – Good Governance and Global Growth, 15th -16th Dec, GLA University, Mathura, India.

Yamang, C. & Roy, A. (2021). Financial literacy and Education: An empirical study in Arunachal Pradesh. In NAAC sponsored online National Seminar on Vocational Courses in HEI and NEP 2020: Issues, Policy and Way Forward, 8th May, Gargaon College, Assam.

Financial Literacy and its Impact on Saving and Investment Behaviour: A Study in Arunachal Pradesh

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Doctor of Philosophy

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CHAPTER 7

FINDINGS, SUGGESTIONS AND CONCLUSION

7.0 Introduction

The current chapter provides a summary of the study's results and findings, as well as the conclusion. The key findings and suggestions based on personal observations are also discussed. The contribution to the body of knowledge and the scope for future research are also discussed at the end.

7.1 Findings of the Study

The following is a summary of the study's findings organised according to their respective sections.

7.1.1 Assessment of Financial Literacy

1. Overall financial knowledge analysis depicts that the majority of respondents scored less in financial knowledge; 62% out of the total sample scored less than the minimum score i.e., 8 points and falls under the low financial knowledge category. That stands for around one-third of the whole sample. Only 38% of sample respondents have high scores in the financial knowledge domain.
2. Respondents' overall performance on financial behaviour showed that the majority of respondents have poor financial behaviour. The result is quite similar to the financial knowledge result, only one-third of the sample (30%) have performed well in the financial behaviour domain. 70% of respondents have poor financial behaviour.
3. The overall result of financial attitude performance is comparatively better than financial knowledge and behaviour. Around 45% of the respondents' performance was slightly low in financial attitude. 55% of respondents have a positive attitude toward their money.
4. The overall financial literacy in the study area is found to be poor. The analysis of a total of 41 questions to measure financial literacy found that out of 800 respondents, 73% respondents have low financial literacy. This implies that the financial understanding, attitude and action that is needed for their financial well-being are poorly fitted. Only 27% of respondents have high financial literacy which means they are financially competent and have good financial knowledge, attitude and behaviour.

7.1.2 Assessment of Financial Literacy: Comparison between Urban and Rural

1. The finding suggests that in both areas, financial knowledge is low. However, the rate of respondents whose financial knowledge is higher in urban than in rural areas. It is

found that 70% of the respondents in rural areas have low financial knowledge whereas it is 54% in urban areas. When it comes to a higher level of financial knowledge, respondent in the urban area is slightly higher than in rural areas, i.e., 46% and 30% respectively.

2. The majority of the respondents have poor financial behaviour in both areas, according to the financial behaviour test. 78% of respondents in rural and 61% in urban areas have scored low in the financial behaviour domain. This shows that overall financial behaviour is low, though rural areas have more respondents with low levels of financial behaviour as compared to the urban area. Out of the total respondent, 22% in rural and 39% in urban areas fall under the category of high financial behaviour. The result reveals that the majority of respondents in rural areas have poor financial behaviour as compared to those in urban areas.
3. In terms of respondents' financial attitudes in both urban and rural areas, it is found that unlike other components of financial literacy such as financial knowledge and financial behaviour, overall financial attitudes performance in rural areas is good. 54% of rural respondents have scored high in financial attitude, whereas 56% in urban areas have scored high in financial attitude. This shows that the overall financial attitude of respondents is somewhat better in both areas.
4. Overall financial literacy is not very high in both regions. It is 17% in rural and 36% in urban areas. However, when both areas are compared, the rural area performed poorer than the urban area. When it comes to low financial literacy 83% in rural and 64% in urban areas falls under this category. The result of the respondents' financial literacy level is concerning.

7.1.3 Socio-Economic and Demographic Factors and Financial Literacy Level.

1. From the result, it is observed that the majority of respondents belonging to the rural areas (83%), and 63.7% belonging to the urban areas have low financial literacy. Out of the total sample, only 26.6% of respondents had a high financial literacy level, with the majority of them belonging to the urban areas 36.2% and 17% in rural areas. Chi-square test results also complement these findings by concluding that there exists a significant association between area i.e., urban and rural where respondents lives and their financial literacy level. According to Cramer's V, the strength of the relationship between these two variables is 0.218, which is moderate.

2. Cross tabulation performed for two variables, respondent's gender and their financial literacy level found that male respondents are more financially literate than that their female counterparts. This result is in line with the studies of Harsha, (2013), Chen and Volpe, (1998). A significant relationship between respondents' gender and their financial literacy level was also discovered using the Chi-square test. The degree of association between these two variables is .075 which is weak.
3. The Chi-square test was conducted to see if there was a link between the respondents' marital status and their financial literacy level. The findings revealed that these two variables do not have a significant relationship. To put it another way, the respondents' level of financial literacy is unaffected by their marital status.
4. The cross-tabulation was performed for respondents' financial literacy and educational attainment. Overall financial literacy among respondents is low i.e., 73.4% while 26.6% of respondents had a high financial literacy level. The result suggests that respondents with the highest financial literacy were undergraduates, postgraduates, and above, accounting for 48.8% and 45.3% of all respondents in the high financial literacy category, respectively. The finding also reveals that the majority of respondents who possess low financial literacy had no formal education 96.1%, followed by respondents who had studied only up to the primary level, 86.4%, secondary level, 76.4%, and senior secondary, 68.6%.

   The Chi-square test was conducted to determine the relationship between these two variables, and the result suggests that there is a substantial link between respondents' educational level and their financial literacy. These variables are not independent of each other. Cramer's value of 0.36 indicates that there is a strong relationship between these two variables. This finding is in line with a number of studies that suggest persons with a higher degree of education have more exposure to and access to financial information (Bharucha, 2017; Caroline et al., 2016). Individuals with a university or college degree are more likely than individuals with a low level of education to be financially savvy (Thara & Ali, 2014).
5. In order to examine the association between the respondent's age and their financial literacy level, a Chi square test was carried out. The finding of the test shows that there is a strong association between the age of the respondents and their degree of financial literacy. According to Cramer's V, the degree of connection between the two variables is 0.121, indicating a weak relationship. The result of cross-tabulation between respondents' age and their level of financial literacy shows that respondents

aged 26-35 (30.4%), 36-45 (28.4%), and 46-55 (25%) had the highest financial literacy among this group. Respondents aged 56 and above had the lowest financial literacy (87.9%), followed by those aged 18 to 25. (82.8%) as far as low financial literacy is concerned.

6. Cross tabulation carried out to check the relationship between respondent's category and their level of financial literacy found that the majority of respondents under the Below the Poverty Line (BPL) category have low financial literacy 92.3%. It may be concluded that respondents who are above the poverty line 35.7% had higher financial literacy than those below the poverty line category 7.7%. The Chi-Square result also found that there is a significant association between the category of respondents and their financial literacy level. These variables are not independent of each other. A very strong relationship between the two variables is indicated by Cramer's V value of 0.29.
7. Concerning the occupation of the respondent and their level of financial literacy, the Chi-square test found that there exists a significant association. Cramer's V value of 0.26 shows there is a very strong association between the two variables. The cross-tabulation displays that out of the total, the majority of salaried respondents have high financial literacy i.e., 35.7%, professionals (30.8%), students (30%), and self-employed (28.2%). The unemployed (7.7%) and daily wager (6.7%) had the poorest rates of high financial literacy. In other words, the daily wager (93.3%), unemployed (92.3%), and other occupations (91.4%) had the highest numbers of respondents in the low financial literacy group.
8. The cross-tabulation of respondents' monthly income and their financial literacy show that out of the total, the majority of respondents in the high financial literacy group have a monthly income of 50,001 and above (48.7%), followed by respondents with income between 40,001-50,000 (48.4%). With regard to the low financial literacy, it is found that respondent with monthly income of up to 10,000 (10.7%) and 10,001-20,000 (15.7%) have lower financial literacy. It was interesting to see that the number of respondents with high financial literacy increased as their income level increased. In other words, higher-income respondents were more financially literate than lower-income respondents. The Chi-square test was employed to look into the relationship between the two variables, and the results showed that there was a significant association. Cramer's V indicates a strong association between two variables with the value of 0.35.

9. The Chi-squared test revealed that there is a strong link between respondents' household monthly income and their financial literacy when it comes to household monthly income. Cramer's V value is found to be 0.32 which means the relationship is very strong. The cross-tabulation of these two variables shows that respondents with a household monthly income of 40,001-50,000 (42.2%) and 50,001 and above (41.6%) are more financially literate than other income groups. It is also discovered that respondents with a monthly household income of up to 10,000 (94.3%) had the lowest financial literacy, followed by income groups 10,001-20,000 (84.8%).
10. The Chi-square test was carried out to investigate the relationship between their financial literacy level and their responsibility for money management. It was found that there is no significant linkage between the responsibility of money management of the respondent and the level of financial literacy. In other words, it could also be said that the financial literacy level of the respondents is independent of their responsibility for money management.
11. The cross-tabulation of two variables i.e., respondents' additional income and their level of financial literacy found that respondents with additional income were (33.2%) more financially literate than those without additional income (22.2%). The Chi-square test result also found that there is a significant relationship between the respondent's additional income and their financial literacy level. According to Cramer's V value, the strength of association between the two variables evaluated is 0.12, indicating a weak relationship.
12. The cross-tabulation performed on the respondent's workplace activity and their level of financial literacy found that majority of respondents whose nature of work is related to finance have higher financial literacy (58.6%). Respondents whose workplace activity is not financed along with those who were not employed at all were found to have lower financial literacy (25.4%). The Chi-square test result also supports the same, that there is a significant association between the respondent's nature of workplace activity and their level of financial literacy. The degree of association is found to be 0.140 which is moderate as indicated by Cramer's V.
13. With regards to respondents' family size and level of financial literacy, the result of cross-tabulation indicates that the majority of respondents with 2-4 family members (35.2%) have higher financial literacy. Whereas the lowest financial literacy is found among respondents with more than 7 family members (18.3%). The findings demonstrated that the number of family members had a substantial influence on

financial literacy. The Chi-square test also revealed a statistically significant link between a respondent's household size and their level of financial literacy. Cramer's V conducted to test the degree of association between two variables is 0.145 which means the association is moderate.

14. A Chi-square test carried out to study the relationship between the respondent's number of dependents and their level of financial literacy found that there is a statistically significant relationship between the above variables. The strength of association between two variables was measured by Cramer's V and is found to be 0.150 which mean the relationship is moderate. The cross-tabulation performed for two variables found that those respondents who have two dependents, 37.7%, had a higher financial literacy, followed by respondents with no dependents, 33.3%. It was also found respondents with more than four dependents had lower financial literacy than others (79.8%).
15. Similarly, cross-tabulation was conducted for two variables i.e., number of earning members and respondent's level of financial literacy. The result shows that the majority of respondents with four earning members in the household have more financial literacy than others 62.5%. It is also found that respondents with one, three, or two earning members in their family had the lowest percentage of high financial literacy, at 23.3%, 26%, and 27.7%, respectively. The Chi-square test used to investigate the relationship between these two variables reveals that the family's number of earning members and the respondent's level of financial literacy are linked. The Cramer's V value was found to be 0.133, indicating that the degree of association is weak.

7.1.4 The Impact of Financial Literacy on Saving and Investment Behaviour

With regards to the savings and investment behaviours of respondents in the area of the study, the overall report indicated that nearly half of the respondents (44.8%) had neutral saving and investment behaviours, implying that the majority's behaviour was neither negative nor positive. However, when comparing two classes i.e., negative and positive, the study found that the majority of the respondents (29.6%) had negative saving and investment behaviour. It demonstrates that people have poor saving and investment habits, which can contribute to financial difficulties in the future. It is also worth noting that the lowest proportion of respondents, 25.6% of the overall sample, had positive behaviour.

7.1.5 Finding of Channels of Saving and Investment Avenues

1. The channels of saving have been categorized into three parts namely, informal saving, semi-formal saving and formal saving. The result of frequency distribution shows that when it comes to informal saving, the majority of respondents prefer to save in kind 76.9% such as animals. In terms of semi-informal saving, the majority of respondents save their money via self-help groups i.e., 19.3%. With regards to formal saving, the most common mode used by respondents was the bank, where 88.4% of the respondents saved their money and the least popular channel is found to be the stock market 0.5%.
2. The analysis of various investment avenues found out that the majority of respondents have invested in banks 46.5%. It is observed that a large percentage of respondents seem to be more comfortable in investing their money in bank deposits such as recurring and fixed deposits. Furthermore, many of them were unaware of other investment options, some did not want to take financial risks, and some did not have sufficient money to invest. Insurance and provident fund were the next most prominent investment options, accounting for 40.3% and 22.8% of the total sample, respectively. The result also shows that the least popular avenues among respondents were the foreign exchange market (0.1%), which was followed by 0.8% derivatives, 0.9% and 0.9% respondents in debenture and bond and commodity market respectively. The overall result indicated that respondents' investment habits were not very encouraging.

7.1.6 Finding of Aspects Considered for Saving and Investment Behavior

Priorities placed on purposes for saving and investment behaviour

1. With regards to the priorities placed by respondents on various saving and investment purposes. The responses of the respondents were divided into three categories. Those who prioritize their purpose very high or high were rated as 3, which is a positive, neutral were given a score of 2 and very low or low priorities were given a score of 1, which is negative.
2. The result shows that the majority of respondents (90.3%) put a high priority on their children's education. Just 3.5% of the respondents placed a low priority on their children's education, while 6.3% placed neutral priorities for the same reason. This demonstrated that children's education was a vital cause to save and invest.

3. In terms of daily household expenses, it was found that 95.9% of the respondents give it the topmost priority when it comes to saving and investment. It received neutral and low priorities from 2.5% and 1.6% of the respondents, respectively.
4. The result also indicated that the majority of the respondents (53.4%) did not give so much importance to children's marriage. Just 32.6% of the respondents placed a higher priority on saving and investing money for their children's marriages. However, 14% of the respondents were neutral, indicating that they either did not put a lot of emphasis on saving or investing for their children or that they did not have any children.
5. It was also found that respondents place a higher value on house construction. The majority of respondents have placed a high priority on saving or investing money for home construction 74%.
6. In terms of social ceremonies, the majority of the respondents placed a low priority on them for saving and investing purposes (45.4%), while 37.3% placed a high priority on them and set aside money for them. However, 17.4% of the respondents were undecided about this goal.
7. The result shows that when it comes to aspiration to live a comfortable life, the majority of the respondent has given it a high priority which constitutes 63.9% of the total respondents. 24% of the respondents were undecided about this purpose, and 12.1% prioritized saving or investing money for a comfortable life lower on their priority list.
8. The result also shows that 75.6% of the respondents saved or invested money in healthcare expenses. Health care was one of their top priorities. 12.8% and 11.6% of the respondents were neutral and gave this aim low priority, respectively.
9. With regards to the repayment of the debt, it was found that 47% of the respondents kept this at a high priority level as their saving or investment purpose. 34.9% of the respondents less prioritise this purpose. 18.1% of the respondent were neutral about the purpose either because they had less or no debt.
10. When it comes to saving or investing money to meet contingency, it was found that the majority of the respondents i.e., 67.9% gave high priority to this purpose. 17.8% of the respondents were neutral and 14.4% placed a low priority on saving or investing money for contingencies.

11. Likewise, the majority of 51.3% of the respondents prioritized saving or investing money to produce future income, as seen in table 6.6. 34% placed a low priority on this goal, while 14.8% were undecided or neutral.
12. Nevertheless, when comparing overall purposes, the majority of the respondents rated daily household expenses (95.9%) as their highest priority, followed by children's education (90.3%) and healthcare (75.6%). Children's marriage (32.6%), social ceremonies (37.3%), and debt repayment (47%) were the least prioritized purposes.

Factors Considered Before Saving and Investment

1. Total 7 factors were considered for this analysis. From the result, it was found that the majority of respondents (92.4%) placed a high priority on the safety of principal money while deciding for saving or investing their money. It was given neutral importance by 6.4% of the respondents, whereas it was given low priority by 1.3%.
2. It was also observed that 87.9% of the respondents placed a high priority on the low-risk factor when making financial decisions. However, 9.1% were neutral, and 3% placed a low value on this factor.
3. With regard to regular returns, it was found that 57.6% of the respondents placed high priorities on it. 28.5% were neutral, while 13.9% of the respondents gave low priority to regular returns.
4. In terms of the high return factor, the result shows that nearly half of the respondents (45.1%) prioritized it when evaluating different saving and investment products or services. 30.4% were undecided or neutral, while 24.5% gave it a low priority.
5. It was also found out that the majority of respondents (54.6%) placed a high priority on liquidity, followed by 31.9% who were neutral, and 13.5% who placed a low priority on high returns as a factor in saving and investment decisions.
6. Nearly half of the respondents (40.9%) placed a high priority on marketability. It was followed by those who were neutral about this factor (39.8%) and those who assigned this factor less important when making financial decisions (19.4%).
7. Again, the majority of the respondents (62.8%) placed a high value on the last factor, prompt return. 30.1% were neutral and 7.1% were less bothered about getting prompt return on their saving and investment.
8. Overall, the findings suggest that when it comes to saving and investing, respondents are most concerned with the protection of their principal amount (92.4%). Low risk

(87.9%) and prompt returns (62.8%) came in second and third, respectively. Marketability (40.9%) and a high return (45.1%) were found to be the least evaluated characteristics.

Source of Information

1. The respondents were directed to rank the 5 sources of information they use the most while deciding on saving and investment. From the result, it was found that general advice was the most commonly used source of information by the majority of respondents (66.5%). Means majority of respondents often seek advice from peers, acquaintances, co-workers, and family members on matters of saving and investing. This source was ranked second by 26.9% of the respondents. Just 6.6% of the respondents rated this source third, indicating that they considered general advice to be the last source of information when making financial decisions.
2. With respect to best buy guidance, the result was similar to general advice. Means, majority of the respondent (66.5%) mostly preferred best buy guidance and approach bank staffs, financial advisors, agents, financial literacy or awareness programmes etc. whereas 26.9% kept this source in the second rank and 6.6% in the third rank.
3. It is also observed that when it comes to the prior experience of the respondents, more than half of the respondents (53.5%) rated it as the second most reliable source of information. 40% of respondents keep their previous experiences first. Only 6.5% ranked own previous experience as the third most reliable source of information.
4. The result also shows that general television advertising was not a common source of information for saving and investment decisions. The majority of respondents 87.6% ranked this source as the third and last option for seeking information regarding finance. Just 6.5% of the respondents gave it a higher ranking. It was ranked second by 5.9% of respondents.
5. Similarly, newspapers and magazines were observed to be the least popular information source among the respondents when it came to saving and investment. The majority of respondents (96.4%) ranked it third, indicating that they don't rely on these sources for information when making financial decisions. Just 1.8% and 1.9% of the respondents, respectively, ranked it first and second.
6. The most common sources of information, according to the overall results, was found to be general advice and best buy guidance.

7.1.7 Cross Tabulation

Saving and Investment Behaviour

1. In order to identify the relationship between different aspects considered for saving and investment behaviour of individuals and their levels of financial literacy, cross-tabulations were carried out and result were analysed.
2. The cross-tabulation of saving channels used by the respondents and their financial literacy level demonstrates shows that the majority of respondents in the informal saving category (76.9%) saved in kind, with 56.3% having low financial literacy and 20.6% having high financial literacy.
3. It is found that the semi-informal saving mode was not very popular. Out of the total respondents who are using these channels, the majority had low financial literacy, 15.6% in a self-help group, 1.5% in microfinance institutions and 1.0% in the joint liability groups.
4. When it comes to formal saving it was found that as compared to other formal saving channels, the majority of respondents who save in a bank have lower financial literacy 63%, only 25.4% fell under the high financial literacy category.
5. The crosstabulation was performed for investment avenues used by respondents and their level of financial literacy. The result shows that overall investment behaviour is not so encouraging among the respondent i.e., less than half percentage of the respondents investing in different avenues. It is found those who are investing money more into bank deposits like recurring deposits and fixed deposits, the majority of 46.5% have invested in banks. In terms of the lowest preferred investment avenues, it was observed that the foreign exchange market was the least preferred one as only 0.1% of respondents had invested in it.
6. Moreover, it was discovered that respondents who had high financial literacy were slightly more probable to participate in certain investment avenues such as real estate (7.4%), government securities (1.9%), derivatives (0.5), mutual funds (3.0%), foreign exchange market (0.1%), debenture and bond issues (0.5%), than those with low financial literacy. It is most likely due to the level of knowledge needed to invest in such financial products and services.

Priorities on Purposes

1. The cross-tabulation was carried on to see the relationship between respondents' priorities on purposes for their saving and investing decision and their financial literacy level. The result shows that majority of the purposes got good responses from the respondent. Of the purposes listed in the study, the majority of respondents prioritized their daily household expenditures for saving and investing. This is followed by those who prioritized their children's education as one of the most important reasons to save and invest. It is followed by the respondents who prioritized health care as a reason for saving and investment, and then by the respondents who prioritized house building.

   The result also showed that children's marriage was given the least amount of importance (32.6 %, n=261). The majority of them did not have a financial plan in mind for their children's marriages, and some also believed that children should manage or arrange their own finances for their marriage. However, it was discovered that some households, especially in rural areas, kept animals (e.g., mithuns, cows, pigs etc.) for marriages. Another less important purpose was for social ceremonies (37.3%), which was followed by debt repayment (47%) and generating future income or investment (51.3%). Unfortunately, the results show that the majority of respondents who placed a high priority on all purposes for saving and investing had low financial literacy.

Factors Considered before Saving and Investment

1. The crosstabulation of the factors considered by respondents before making saving and investment decision and their financial literacy level depicts that in each group of factors that were considered before saving or investing, the majority of respondents had low financial literacy.
2. It is found that the majority of respondents (92.4%) sought the safety of principle when saving or investing their money and out of its majority of 66.4% persons have low financial literacy. Similarly, in the low-risk factor, the majority of respondents have low financial literacy (62.8%). Even in the least considered factor i.e., marketability, the majority have low financial literacy.

Source of Information

1. The cross-tabulation was conducted to find the association between the source of information preferred by respondents and their level of financial literacy. The result demonstrates that out of all sources, most of the respondents usually take general advice from family, relatives, friends or colleagues. 66.5% of the respondents have ranked it first. Similarly, the same per cent (66.5%) of the respondents went for the best buying option, which was followed by people who took decisions based on previous experiences. It is also found that people hardly look for information in newspapers and magazines (1.8%). Here we can see high financial literacy group (1.1%) were using this source slightly more than the low level of the financial literacy group (0.6%). It was followed by general advertisement and television (6.5%).

7.1.8 Finding for Logistic Regression to find the Impact of Financial Literacy on Saving and Investment Behaviors

1. The ordinal logistic regression was performed to predict the saving and investment behaviour of respondents by using their degree of financial literacy. The analysis has been carried out in two parts to identify the relation between two variables. First, the link between overall financial literacy and saving and investing behaviour was examined. Next, the relationship between three components of financial literacy and saving and investment behaviour were analyzed. The same analysis was performed to compare the performance of rural and urban areas.
2. The theory that the respondent's level of financial literacy influences their saving and investing behaviours was supported by an ordinal logistic regression model. However, in the overall study area in general and the urban area in particular, it did not support the theory that financial attitude was a predictor of saving and investment behaviour. It also rejected the theory that saving and investment behaviour in rural areas was determined by financial knowledge and attitude.

7.1.9 Factors Affecting Saving and Investment

1. Data were collected on a dichotomous scale to determine the factors that influence their saving and investment decisions. From the result, it is found that the most important factor that influence respondents' saving and investment habits is their 'demanding financial responsibilities.' Most of the sample respondents had to provide for their relatives' financial needs in addition to their own family members. The

majority of 70% of respondents' financial decisions were influenced by this aspect. This component was especially visible in the research area because tribal communities live in a socialized culture. In many circumstances, relatives were financially reliant on the respondent, who were responsible for the relative's children's schooling and other financial necessities.

2. It is found that another major reason for not saving or investment money was not having an additional income. 70% of the respondents stated that they were unable to save or invest since they do not have any additional income aside from their regular income. Lack of knowledge about financial products and services was another major problem that 60% of the respondents were facing. Many of them were unaware of and even afraid of investing in financial products and services.
3. The least influencing factors on respondents' saving and investment decisions were found to be complicated bank procedures (4%) and absence of family support (10%).

7.1.10 Findings Through Observation

Following are some self-observations related to lack of financial literacy and saving/investment behaviour done during fieldwork:

1. No access to the internet, no proper roads and lack of proximity to the Bank are observed in some villages, which are some of the major reasons for respondents' unawareness about financial products and services. Non-availability of transportation seems to be another problem in some far-flung villages due to which they cannot go to banks or any other financial institutions.
2. The majority of respondents in rural areas are unemployed or are engaged in agriculture. Since their source of income is irregular, they usually don't think more than keeping/using the money for daily household expenses even though they have some ideas about saving and investment. As a result, their saving and investment habit is poor.
3. Another interesting thing found in the study area is the practice of giving donations between the clans for different purposes like wedding ceremonies, medical issues or any other problems. Individuals belonging to a particular clan have to help each other in times of need by contributing in cash or kind. The amount of contribution is fixed according to the status and income of the person. Such contribution is a kind of an obligation though not mandatory. This way they get help from each other when they

are in need. In some instances, it was seen that people take loan also to give their share of contribution, mostly from traditional socio-economic organization e.g., friendship fund, clan fund etc.

Though such practice is helpful but sometimes this practice affects the household budget according to some respondents.

4. Buying housie tickets is another practice that is very common in the urban areas of upper Subansiri. And now due to pandemic, this practice has become rampant in some parts of the study area.
5. Education is one of the important ways to augment financial awareness among students and through them to their parents. However, it was observed that school is either not giving financial education or it is not functioning at all due to the unavailability of teachers or infrastructure in rural areas. It is mostly affecting poor children who can't afford private schools or go to some other places to study in government schools.
6. It is also observed that the government's effort on financial literacy is not so effective at the ground level in the study area. The majority of respondents have hardly heard about financial awareness programmes. Most of the sample respondents (92.5%) did not participate in any financial literacy programmes in the study area according to the findings. The percentage of persons who do not participate in such programmes is 95.5% in urban and 89.5% in rural areas.

   Further, FLCC programme seems to be non-effective though the numbers of participants according to the banks' reports are high. However, those who attend the programme just open a bank account; but this doesn't guarantee that they will do well with their money. RBI also publishes or distributes pamphlets, comic books on financial education etc. which are hardly read or seen by any respondents. Forget about courses or videos available on websites of various stakeholders on financial education, where respondents have less digital knowledge and have internet connectivity issues, it is impractical to expect people to learn from these platforms.

7.2 Suggestions

The researcher proposes the following suggestions based on the empirical findings of the study to various stakeholders viz. financial education providers, individuals, policymakers, and regulatory bodies to promote financial literacy. The suggestions are mostly based on the conditions present in the research area during the study period.

1. Despite many measures initiated by RBI, SEBI, IRDAI and PFRDA towards increasing financial literacy, the empirical findings of the study show that 73 % of the individuals surveyed in the 3 districts of Arunachal Pradesh have low financial literacy.

   As a result, it is advised that regulatory agencies committed to providing financial literacy should facilitate training to the general public focusing on the micro-level segment of persons in both urban and rural areas.
2. The empirical finding shows that rural respondents (83%) are poorer in financial literacy than urban respondents (64%). It is suggested that the government should focus on improving rural people's financial literacy on a regular basis and assess their progress. By uplifting rural areas, our country's economic development will benefit in the long run. Previously study (Abdul Azeez & Nasira Banu, 2021; Jayanthi & Rau, 2019) in other regions also suggests the same.
3. More efforts should be employed to improve the knowledge and behaviour of the people toward finance. One of the primary causes of inadequate financial literacy was discovered to be a lack of financial knowledge and behaviour in the study area.
4. According to the findings of the current study, the vast majority of sample respondents (92.5%) did not participate in any financial literacy programmes in the study area. The percentage of persons who do not participate in such programmes is 95.5% in urban and 89.5% in rural areas. Following suggestions are proposed to the policymakers to improve financial literacy in both urban and rural areas.
   a) Initiatives like Financial Literacy Camps by commercial banks and other initiatives for financial awareness programs by different stakeholders should be implemented well considering the need of both areas i.e., urban and rural. Awareness should not be provided in theory only; some hands-on training sessions should be provided. Some evaluation programmes like Pre and post-program tests and follow up surveys will ensure whether the participants benefitted from the financial literacy program or not.
   b) Dramas, skits, public rallies, roadshows, films in different languages including local dialects can be shown specifically to the rural population in order to impart financial awareness and money management skills through NGOs, Self Help Groups, local governing members, educational institutions, banks etc. Further helplines in different languages including local dialects, social media, mass media can play a crucial role in

disseminating financial education at the grassroots level. Specifically, popular faces/YouTubers can be used to spread awareness through YouTube channels. It was also observed that religious leaders have a good influence on people in the study area. They can also use their platform to educate people in financial matters and help them improve their financial wellbeing.

c) Ambitious programmes like National Strategy for Financial Education 2020-2025 (NCFE) which is prepared in consultation with the four Financial Sector Regulators (viz. RBI, SEBI, IRDAI and PFRDA) and other relevant stakeholders should not be confined to paper only. Proper implementation and timely evaluation of such programme should be done so that to achieve financial wellbeing of every section of the society.

5. The findings revealed that the financial literacy level of people is associated with different socio-economic and demographic characteristics. Therefore, a one-size-fits-all approach to spread financial literacy may not be suitable, as the financial literacy level is different among people with different socio-economic and demographic characteristics. As an alternative, personalized programmes should be developed in accordance with the requirement of the specific groups. Rural people, women, illiterate/less educated, senior citizen/retired people, low age group, low-income group, daily wagers/unemployed etc. have a significant association with the level of financial literacy according to the empirical findings of this study.
6. It is critical to begin a financial education program for individuals at an earlier phase without bias. This will make sure that a saving and investing habit, as well as proper money management, is instilled in them from an early age. Financial education/personal finance/money management must be included (if not) as a key subject in the primary and secondary school curriculum. Proper training of teachers in this regard is also to be given.
7. To increase financial literacy, regulatory organizations or stakeholders can sponsor business and economics festivals in schools, colleges and universities. These programs will assess and certify students' knowledge of fundamental topics such as financial and economic terms, saving and budgeting principles, banking, taxation, and stock markets, smart investment options, basic accountancy, and entrepreneurial skills.

8. The finding evidence that there is a neutral saving and investment behaviour (44.8%) among the majority of the sample respondents. It is followed by respondents with negative behaviour (29.6%). The result shows that there is a scope for improvement in the saving and investment behaviour in the study area. This can be done through financial education as the empirical finding shows that the level of financial literacy influences the saving and investment behaviour of respondents.
    a) The study also finds that majority of sample respondents (88.4%) save in banks. Even for investment, people invest in term deposits in banks (46.5%). Given that the majority of respondents prefer to save and invest in banks, commercial banks should use a number of measures to enhance awareness. Commercial banks should not blend the financial dealings of various categories of individuals, such as students, illiterates, low-income customers etc. with those of well-educated, high-income customers. Dealings with vulnerable groups should be handled by a separate department staffed by properly trained personnel.
    b) It is also recommended that banks actively participate in the re-design of educational programmes, workshops, and training on financial matters according to the specific needs of the people, particularly in rural areas.
    c) Financial literacy and counselling centres or bank correspondents should be staffed by local people who are familiar with the culture and mindset of tribals. People learn better when they are taught by people they know and trust. Moreover, individuals chosen from the local community must be prudent and trustworthy. Proper and up-to-date training of such individuals/trainers on new financial products and services is also necessary.
9. According to the survey, the majority of sample respondents favour safe and low-risk financial goods and services. This could be one of the reasons why people do not prefer to invest in financial products such as stocks, mutual funds, and so on. A concerted effort should be made to raise awareness among potential investors. They should be appropriately taught and given diverse knowledge on financial market procedures, long-term investment parking, risk management approaches, and predicted investment growth.

10. In addition to the above suggestions on major findings, the following suggestions can also be considered:
    a) The development of a sound financial market in India requires an efficient information technology solution. Arunachal Pradesh is lagging behind in terms of network connectivity in this digitalized era. When it comes to internet access, many rural areas in Arunachal Pradesh are still underserved. Many customers and banks in rural areas have been experiencing issues with electricity and internet connectivity. In rural areas, lack of access to banks and poor road connectivity are also challenges. Thus, this issue needed to be resolved.
    b) Financial education providers through appropriate financial education and awareness, adequate protection must be reinforced to address issues of cyber security, data confidentiality, mis-selling, customer protection, and grievance redress.
    c) As part of their Corporate Social Responsibility, businesses, including local businesses, should place an emphasis on increasing community financial literacy by delivering financial education to different target groups in a more personalized manner.
    d) Financial literacy besides increasing the welfare of individuals and the economy helps in sustainability also. Financial literacy, in general, is the foundation for raising understanding of the financial industry's Environmental, Social, and Governance (ESG) effect. Understanding how financial decisions affect sustainability may influence people's willingness to think about the environmental impact of their financial decisions, and ultimately their financial product selection. Consumers who are better known in this area are more likely to invest in environmentally friendly projects or to exert greater influence over companies to make them more sustainable. Therefore, various stakeholders should keep this point in mind while developing any programmes or plan to impart financial knowledge to anyone.

7.3 Conclusion

Financial literacy is considered a substantial component of stability and economic and financial growth (Potrich et al., 2015). Several studies conducted in developed and developing countries on financial literacy shows that the level of financial literacy is low among different groups of society. The empirical findings emphasize that the financial literacy of people is needed to be improved in Arunachal Pradesh. On examining the financial literacy of people, it was found that the overall financial literacy is poor as only 27% of people were highly financial literate. While the percentage of highly financially literate is low in the urban areas (36%), it was lower in rural areas (17%) in Arunachal Pradesh. This result is really concerning and need serious attention from the government and policymakers. It is also evident from the empirical result that though 55% of people had a positive attitude toward their finance they had low financial knowledge and poor financial behaviour were found among the majority of the respondents. This suggests that policymakers and various other stakeholders of financial education need to take initiatives to improve people's financial knowledge and financial behaviour. Individuals need to be properly educated about new and existing financial products present in the global markets in order to take full advantage of better returns.

It is also observed that certain socioeconomic and demographic factors are associated with the level of financial literacy of the respondents. Respondents residing in urban areas, male, higher education attainment, age group 26-35, APL, salaried, higher monthly income, additional income source, finance-related workplace activity, small family size and fewer dependents were found to be more financially literate.

Further, neutral saving and investment behaviour was found among the majority of the sample respondents. Only 25.6% show positive saving and investment behaviour. The vast majority of respondents save or invest in traditional and secure financial products and services. According to the study, people are unable to take advantage of numerous financial products offered in the market due to demanding financial responsibilities and poor awareness levels.

People give high priority to their daily household expenses and least priority to Children's marriage. The most considered factor before saving or investing in any financial products and services is safety first and marketability is considered last. While people usually go

for general advice and best buy guidance as a source of financial information, the least used source of information is found to be newspapers.

The study also found that financial literacy significantly influences saving and investment behaviour. However, it was seen that financial attitude which is one of the components of financial literacy that do not affect the saving and investment behaviour of the respondent in both urban and rural areas. The result also shows that saving and investment in rural areas do get affected by financial knowledge and attitude.

Managing one's own finances is vital in improving an individual's financial wellbeing as well as the overall economic condition of the nation. Financial literacy is not only important for investors, but it is important for every individual. various policymakers and regulatory bodies have been trying to increase the financial literacy of people through different initiatives. However, the financial literacy level of the sample respondents is still low, according to the empirical findings of this study. Most of the sample respondents have neither heard of nor attended any of the programmes or any other initiatives to increase the level of financial literacy in the study area. the study gives clear indications about the gaps between the supply and demand sides of financial literacy, which can be improved with the collective efforts of regulatory bodies, government, NGOs, education institutions and stakeholders.

7.4 Contribution to the Body of Knowledge

The study of financial literacy is crucial as it encourages and empowers smart financial decision making. By analysing financial literacy, the current study seeks to contribute to efforts to improve financial literacy in Arunachal Pradesh. This study highlighted the level of financial literacy among the tribal people of Arunachal Pradesh and its effect on their saving and investment behaviour. The relationship between various socio-economic and demographic factors and the financial literacy level of the respondents have also been found. The study also offers some suggestions for improving financial literacy among various groups of people that can be used by various stakeholders. Following the identification of people with poor financial literacy based on the findings, suitable study material can be developed, taking into account the people's location, age group, educational background, occupation etc. The study may help in devising personalized strategies for empowering specific sub-group of people through financial education. This

research could also aid the government and various stakeholders in developing financial literacy programmes for the people of Arunachal Pradesh at the grassroots level.

7.5 Scope for Future Studies

This study is an attempt to explore the financial literacy level of households and its linkage with saving and investment behaviour with the study of determinants among the individuals of three districts of Arunachal Pradesh. The study is restricted to these three aspects. In addition, the study's geographical scope can be broadened, and new districts or areas can be investigated for future research, using the current study as a foundation. Additionally, similar studies can be done on different tribes. Future researchers can also explore the supply side of financial products or services to address the problems in achieving better financial literacy among people. A comparison of the supply and demand side of the problem may provide valuable insights. A study on the role of culture or ethnicity on financial literacy can also be studied. Performance evaluation of various financial education providers in spreading financial literacy will be another interesting and important study. Further effectiveness of various policies and programmes on financial literacy on different target groups can also be analysed in future. In future, researcher can explore further and elaborate the concepts of financial literacy, financial capability and other related concepts in respect to Arunachal Pradesh.