

# **"From Knowledge to Action: Financial Literacy as a Driver of Consumer Financial Behavior in Rangpur City Corporation, Bangladesh"**

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## **A B S T R A C T**

Bangladesh is witnessing rapid transformation in its economy due to urbanization, digital financial inclusion, and the spread of formal financial literacy. In this context, “financial literacy” (which is the capacity to understand and use skills effectively related to financial activities, such as budgeting, debt management saving, and investing) has emerged as an important driver of the financial wellbeing of the household. Improvement at a national level has already been seen, but the secondary cities like Rangpur City Corporation (RPCC) of northern Bangladesh have not been much studied empirically in terms of financial literacy. This study tries to fill that gap by investigating how consumer financial behavior is affected by financial literacy among the residents of Rangpur City Corporation (RPCC).

A research design combining with a structured survey of 400 respondents, 5 Key Informant Interviews (KIIs) of experts in financial sector and 20 In-Depth Interviews (IDIs) of the residents of Rangpur City Corporation (RPCC) were implemented in this study. The

theoretical framework of this study is consisted with “Theory of planned behaviour (TPB)”, introduced by Ajzen in 1991 and “Financial literacy framework” of Lusardi and Mitchell (2008). Together they explain how financial knowledge, attitudes and supposed how behavioral control are connected with actual behavior or outcomes.

The study reveals a big awareness-access paradox in RPCC. The rest of the respondents accept the need for financial literacy but the percentage of them having any form of financial literacy classes was less than 50%. Further, a large number of them are not confident about the use of concepts like interest rate, inflation, risk behaviour and investment risk. As confirmed by statistical analyses such as multiple regression and chi-square tests, correlation analysis, formal financial education is a strong foundation and statistically significant factor of improved financial behavior across all four dimensions tested here. Respondents with formal financial education in particular had significantly higher savings rates ( $R^2 = .611, p < .001$ ), greater comfort with calculated financial risk [ $\chi^2(16) = 598.25, p < .001$ ], stronger investment participation, and more responsible levels of outstanding debt [ $\chi^2(1) = 211.39, p < .001$ ]. Moreover, financial literacy and consumers financial behavior were also influenced by educational qualification and income level. As a result, higher educated and higher-income generating respondents have shown better financial behavior.

The results obtained from key informant interviews and in-depth interviews were also found to be qualitatively validated by the KIIs and IDIs which found a set of reasons still remain barriers among women. These barriers included a limited institutional presence, continued normative behaviour against women’s use of financial services, low digital literacy and language-medium mismatch in existing financial education programs, etc. As a result of these structural barriers, the positive financial attitudes of RPCC residents have not consistently translated into sound financial action. The study defines this gap as “behavioural inertia”.

The research findings depict that financial literacy works as an important mediating variable on the relationship between demographic factors and consumer financial behavior in Rangpur City Corporation (RPCC). Financial education interventions that are targeted,

culture-sensitive, and local-contextualized – through schools, community organizations, and digital platforms in Bengali – is urgently required. Including financial literacy in secondary and higher secondary school curriculum in Bangladesh is recommended based on the finding of this research.. Further recommendation includes facilitating Bangladesh Bank’s financial literacy outreach to secondary cities while developing gender sensitive programs that particularly target financial inclusion of women in RPCC. The implications of these findings are varied, not only for Rangpur but also for other secondary urban centers of Bangladesh and similar developing economies in South Asia.

**Keywords:** Financial Literacy, Consumer Financial Behavior, Theory of Planned Behavior, Savings Behavior, Debt Management, Investment Behavior, Rangpur City Corporation (RPCC).

## INTRODUCTION

### 1.1 Background of the Study

Bangladesh is in the phase of rapid economic growth and structural change, and is being accompanied by the expansion of financial services, urbanization, and greater access to formal and digital financial systems. These transformations have greatly transformed the financial landscape of the country and brought in opportunities as well as challenges to citizens. As a developing urban area in northern Bangladesh named Rangpur City Corporation (RPCC) is a manifestation of these changes because of the variety of economic activities in this city, namely, small and medium enterprises, retail trade, agriculture-based business, and households relying on remittances. The city is a significant part of the region economy and a socioeconomically differentiated population(Aziz & Naima, 2021).

With growth in the financial services, one of the main problems facing Bangladesh including Rangpur is that the level of financial literacy of people is largely low. Financial literacy is the skill to reason and utilize financial literacy like budgeting, saving, investing, and dealing with debts and assessing financial risks. Lack of financial literacy may hamper individuals inappropriate debt management, lack of savings, poor investment choices and exposure to financial shocks and this may have adverse implications of financial stability and economic resilience on household (Mustafa et al., 2023).

Rangpur City Corporation (RPCC), located in the northwestern part of Bangladesh some 300 kilometers north of Dhaka, is a site of considerable interest yet unexplored reference to study the linkage between financial literacy and consumer financial behavior. Established a city corporation in 2012 RPCC is the administrative and commercial center of northern Bangladesh. It is located in an area exhibiting a high degree of socio-economic heterogeneity and significant economic diversity. A range of economic activities is taking place in the area which includes small and medium enterprises (SMEs), retail trade, agriculture-related activities, remittance households and public sector job holders (Aziz & Naima, 2021). The economic diversity makes RPCC a great site to research the intersection of financial literacy and financial behaviors across different demographic and income groups.

The growing urban character of Rangpur City Corporation along with the increased economic base is facing several developmental challenges. These challenges are the distinctive features which differentiate it from the major cities of Bangladesh. The Rangpur Division has traditionally had one of the highest poverty rates in the country. The RPCC has not achieved uniform accessibility to formal financial services across wards and income groups. According to a Financial Inclusion Insights (FII) Programme, a survey conducted by InterMedia shows that about 28 per cent of Bangladeshis are financially literate – a figure probably lower for people in secondary cities and towns of the north region. According to a survey of Bangladesh Bank, conducted in 2020 shows that only 44% Bangladeshi adults have a basic understanding on the financial concepts like inflation, interest rates, and investment risk. This reveals that financial illiteracy is not confined to the formally uneducated people.

Consumer financial behavior, which encompasses the way consumers spend, save, invest, and take on debt, has implications for personal wellbeing, household economy, and economic development. To come up with relevant interventions and enable effective financial inclusion, there is a need for financial institutions and policymakers and educators to understand how financial literacy shapes such behaviours. In the case of RPCC, much of the people are borrowing money through informal setups, receiving remittances, and have little experience with formal financial products. Therefore, understanding the current levels of financial literacy and their behavioural consequences is of strategic importance for the development of RPCC.

This study “From Knowledge to Action: Financial literacy as a determinant of Consumer Financial Behaviour of Rangpur City Corporation” tries to fulfil the above demand through an empirical analysis based on quantitative survey data along with qualitative data from the Key Informant Interviews and In-Depth Interviews.

## **1.2 Statement of the Problem**

The financial literacy of an individual goes a long way in helping him make good financial decisions and manage the money well for long-term economic security. In Bangladesh, the rate of financial literacy is quite low that affects not only households but also the economy. A working paper published by the Asian Development Bank Institute (Khalily, 2016) revealed that 75 percent of the families and 40 percent of the adults in Bangladesh use financial services. According to a Bangladesh Bank survey in 2019, 45 percent of respondents had no access to any form of financial services at all which indicates a crisis of financial exclusion that is rooted in low financial literacy.

The remaining 55 percent citizens who have proper access to financial services, have created at the existing situation deeply unsatisfactory. Only 16 percent of citizens can take advantage of full range of available services such as savings account, credit, and insurance. Meanwhile, 39 percent people have only basic access. The issue of financial illiteracy has already taken

place at various related levels in Rangpur City Corporation (RPCC) and it is also a manifestation of those national patterns. In this situation, systematic, evidence-based investigation is needed.

| KEY DIMENSIONS OF THE RESEARCH PROBLEM    |                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Problem Dimension                         | Explanation                                                                                                                                                                                                                                                                                                                                                  |
| <b>Low Financial Literacy Levels</b>      | Most of the RPCC residents do not possess adequate financial literacy to make sound financial decisions. This results in bad financial decision making, financial insecurity, and increased susceptibility to economic shocks. According to the World Bank 2022, financially illiterate households in Bangladesh face a 20% higher chance of poverty.        |
| <b>Literacy-Behavior Knowledge Gap</b>    | The financial literacy and consumer financial behavior association of RPCC context has not been researched empirically enough. The degree of influence of financial literacy for saving, debt management, and investment of RPCC residents is unclear.                                                                                                       |
| <b>Economic Implications</b>              | Low financial literacy in RPCC generates serious macroeconomic ripple effects. When people make poor financial decisions, they fail to save enough money, they are not able to borrow money easily on low-interest rates and miss out on great investment opportunities which occur in the same region. All three factors lead to slow growth of the region. |
| <b>Policy and Program Development Gap</b> | Policymakers and financial institutions need evidence-based insights to determine the level of financial literacy in RPCC. Due to lack of localized empirical data, especially in the northern Bangladesh context, a systematic review was conducted.                                                                                                        |

|                                                |                                                                                                                                                                                                                     |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Insufficient Financial Education Access</b> | There are not enough effective financial literacy programs designed for the people of Rangpur. A lot of people lack basic financial competencies and end up making decisions that go against their best interests.. |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Table 1.1 — Key Dimensions of the Research Problem in Rangpur City Corporation (RPCC)

These challenges that have been mentioned above make up the research problem of this study. There is a lack of rigorous city-level empirical evidence on financial literacy among the residents of Rangpur City Corporation (RPCC). This is not only academic concerns but also practical barrier to create an effective targeted financial literacy interventions in urban context of northern Bangladesh. This study will fill this gap by examining financial literacy of RPCC residents and how financial literacy levels influence financial behaviors, and strategies to promote literacy in this study area.

### 1.3 Research Questions

This research is directed by two key research questions, which will address the theoretical that is empirical as well as and policy issues concerned with the link between financial literacy as well as and consumer financial behavior in Rangpur City Corporation.

| RESEARCH QUESTIONS (RQ) |                                                                                                                                                                                                                                                                       |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>RQ1</b>              | What is the current state of financial literacy of various demographic, social, and economic groups within Rangpur City Corporation, and how these factors affect the financial literacy levels?                                                                      |
| <b>RQ2</b>              | What is the impact of financial literacy on the financial behaviour of consumers i.e. savings behaviour, debt management practice and investment choices in Rangpur City Corporation by the residents and what can be done to improve financial literacy in the area? |

## 1.4 Objectives of the Study

The study has four main objectives that cumulatively structure the study from observation to analyses to policy prescription. The objectives arise explicitly from the research problem and research questions. Accordingly, each element of the empirical work of the study has a clearly identifiable output.

| RESEARCH OBJECTIVES (RO) |                                                                                                                                                                                                 |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| R01                      | To assess the existing level of financial literacy and awareness among people living in Rangpur City Corporation, Bangladesh.                                                                   |
| R02                      | To examine the connection between financial literacy and the financial behaviour, in terms of savings behaviour, debt management behaviour, and investment choices in Rangpur City Corporation. |
| R03                      | To explore the impact of demographic, social, and economic characteristics on the financial literacy and financial behaviour of the inhabitants of Rangpur City Corporation.                    |
| R04                      | To propose policy suggestions and strategic plans of supporting financial literacy programs and financial awareness campaigns in Rangpur City Corporation and Bangladesh in general.            |

## 1.5 Scope of the Study

The present study concentrates only on Rangpur City Corporation (RPCC) residents as units of analysis. The Rangpur City Corporation (RPCC) has been selected due to a geographic rationale. Since RPCC is the principal urban administrative unit of the Rangpur Division, it harbours a socio-economically diverse population. This population's experiences and

outcomes of financial literacy are influenced by their unique urban settings. Further, the population’s experience and outcomes are also shaped by the particular challenges posed by the development of northern Bangladesh. By focusing solely on the city, the findings will yield adequate contextual knowledge that generate empirical and actionable findings suitable for the context.

| SCOPE OF THE STUDY                   |                                                                                                                                                                                              |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Geographic Scope</b>              | Rangpur City Corporation (RPCC), Rangpur District, Northwest Bangladesh — spanning all 33 wards including central commercial zones and residential neighborhoods.                            |
| <b>Population / Unit of Analysis</b> | Residents of RPCC across diverse demographic segments: age, gender, income level, educational qualification, and employment status.                                                          |
| <b>Financial Literacy Dimensions</b> | Understanding of interest rates, inflation, risk and return, risk diversification; financial attitudes; confidence in decision-making; participation in formal financial education programs. |
| <b>Financial Behavior Dimensions</b> | Savings habits, investment preferences, debt management practices, budgeting behaviors, and overall consumer financial decision-making patterns.                                             |
| <b>Research Methodology</b>          | Mixed-method: quantitative survey (400 RPCC residents) + qualitative Key Informant Interviews (5 experts) + In-Depth Interviews (20 residents).                                              |
| <b>Transferability</b>               | Findings and recommendations are designed to be applicable to other similarly situated secondary urban centers in northern Bangladesh and to inform national financial literacy policy.      |

Table 1.2 — Scope of the Study: Dimensions, Coverage, and Boundaries

The dimensions of financial literacy explored in the study includes the respondents' knowledge of essential financial concepts such as interest, inflation, risk-return relationship and risk diversification along with their financial attitude, confidence in financial decision making and participation in formal financial education and informal financial education. The study investigates aspects related to savings behaviour and levels, investment choice and activity, debt management practice, budgeting practice and quality of consumer financial behaviour overall.

The research utilizes a mixed-methods design, which combined quantitative surveys administered to 400 RPCC residents with qualitative Key Informant Interviews with 5 experts and In-Depth Interviews with 20 RPCC residents from various demographic backgrounds. By combining qualitative and quantitative methods, researchers can make statistical generalizations based on a sample of participants and offer a more contextual and rich understanding than what quantitative or qualitative cannot offer alone or in isolation.

Though the study area of the Rangpur City Corporation of Bangladesh geographically constrains the methodological design and conceptual frame of reference; findings and recommendations will be applicable to any secondary urban centre of the North Bengal. Research on financial literacy in Bangladesh has primarily been concentrated in Dhaka and other major cities. Therefore, the RPCC study will contribute to the filling of the gap in literature on financial literacy in Bangladesh in geographical and analytical terms.

## **1.6 Significance and Justification of this Study**

The present research has a significance that works at three levels such as, academic, institutional and policy which by themselves independently justify the present investigation.

**Academic Significance:** This paper contributes to the financial literacy literature of Bangladesh with city-level empirical evidence from a secondary urban centre in northern

Bangladesh – a geographic context that is considerably underrepresented in existing financial literacy research. Most of the studies on financial literacy in Bangladesh focus on a national level, the urban context of Dhaka, or rural populations. As a result, there is a huge empirical gap regarding secondary urban centers. Focussing on the RPCC context, this study uses established theories, namely the Theory of Planned Behavior (Ajzen, 1985) and the financial literacy framework (Lusardi and Mitchell, 2008), thereby aiding the contextual validation and expansion of these two theories within a developing country secondary urban setting.

**Policy and Institutional Significance:** Financial illiteracy in the Rangpur City Corporation has the tangible and measurable impact on the well-being of individual households and the economic development of the region. The fact that 45% of adults in Bangladesh do not have access to formal financial services as per the Bangladesh Bank’s 2019 survey, and the finding that financially illiterate households have 20% higher probability of being poor as per the World Bank (2022), highlight an urgent need for rigorous localized research which can inform effective policy intervention. This research will generate the evidence base that can enable policymakers, the Bangladesh Bank, commercial banks, microfinance institutions, and NGOs working in the RPCC area to design effective, contextually relevant financial literacy programs.

**Practical Significance for RPCC Residents:** The citizens of Rangpur City Corporation will ultimately benefit from this study in terms of making better financial choices. This study aims to assist in the building of a more financially empowered population in northern Bangladesh by documenting the present state of financial literacy in RPCC, empirically establishing linkages between literacy levels and financial behaviours and generating actionable recommendations for the promotion of literacy. It will be helpful to empower population by coping with increasingly complex financial scenario, becoming more economically resilient. It will be also useful for economic development of Bangladesh.

# LITERATURE REVIEW

## 2.1.1 Introduction

Financial literacy has now become a serious concern for economists, policymakers, and behavioral scientists and it is a determining factor for individual and household overall financial well being. Financial literacy means having financial knowledge and use that knowledge in saving, budgeting, deciding, borrowing, and investing (Lusardi & Mitchell, 2014; Munoz-Cespedes et al., 2021). But, contemporary literature has expanded it including financial capability. It also has been incorporated with attitudes, self-efficacy, digital competence and the desposition of behavior to act on financial knowledge in a fruitful way (Nunez-Letamendia et al., 2024; Xiao & O'Neill, 2016).

The changing role of financial literacy is increasingly significant in developing countries with rapid urbanization like Bangladesh. On one hand, financial goods have become more sophisticated than ever. On the other hand, a large portion of urban populations is unbanked or underbanked. They mainly use informal financial products. The Rangpur City Corporation (RCC) is located in the northwestern division of Bangladesh exhibits this duality; it is an up-and-coming urban centre benefiting from rapid growth in demographics and economy, while simultaneously suffering from chronic financial exclusion, low institutional trust, and poor access to formal financial service (Hassan and Ahsan, 2025; Hasan et al., 2021).

The review focuses on how financial literacy improves financial behavior of consumers which conditions help in this and which impede this in urban Bangladesh and similar settings. It is not just an academic exercise. The Government of Bangladesh and Bangladesh Bank view financial inclusion as an important development goal but the behavioral channels through which financial literacy intervention leads to enduring behavior change are still not very well understood in the Bangladeshi urban context (Aziz & Naima, 2021; Hoque et al., 2022).

## **2.2 Conceptual and Theoretical Foundations**

### **2.2.1 Conceptualization of Financial Literacy**

The idea of financial literacy has changed a lot. According to Lusardi and Mitchell (2014), financial literacy primarily refers to knowledge of basic financial concepts such as interest compounding, inflation, or risk diversification, along with the ability to utilise such knowledge in decision making. Replicated in over 140 countries through ‘Big Three’ survey questions operationalization (Klapper & Lusardi, 2019), an operationalized definition. This selection has been contested by recent scholarship. By way of a scientometric analysis, Munoz-Cespedes et al. (2021) found a total of five dimensions, namely knowledge, skills, attitudes, behaviour, and digital financial literacy. A distinction exists between knowledge and capability according to Nunez-Letamendia et al. (2024), who profess that financial literacy is the former, while the latter refers to the ability to apply knowledge which includes self-efficacy and budgeting skills. Capability, they argue, is the more policy-relevant concept.

This distinction is of immense importance to Rangpur. Urban Bangladeshi consumers could have an average conceptual financial knowledge but lack the capability to act, access to institutions or social support. The gap between knowledge and action is the focus of this review.

### **2.2.2 Theoretical Foundation**

The study of financial literacy and behavior is underpinned by diverse theories. The human capital theory perspective views financial knowledge as an investment which will yield future benefits in terms of better savings, debt management, and asset accumulation. (Lusardi & Mitchell, 2014). The picture gets more complicated if we use the lenses of behavioral economics. According to Fernandes et al. (2014), Balasubramanian and Sargent (2020), a variety of psychological biases (overconfidence, present bias and loss aversion) affect individual decision-making, even among financially knowledgeable agents.

Yeo et al. (2023) and Nunez-Letamendia et al. (2024) have provided a more sophisticated version that has been drawn on the basis of “Theory of planned behavior (TPB)”. Understanding concept of financial system influence financial behaviors and perceived behavioral control. It is also related with subjective norms that influence behavioral intentions and consequent behavior. Social norm affects individual decision making on finance among the people of Rangpur City Corporation (RPCC). And this has made this framework relevant. Social learning theory and the life course perspective has added further dimension. Firstly, it has emphasized family financial socialization and peer effect. Secondly, linkage between behavior and literacy may vary according to age, family stage, and income trajectory.

## **2.3 Empirical Evidence on Financial Literacy and Consumer Financial Behaviour**

### **2.3.1 Global Patterns**

The revolutionary global study by Klapper and Lusardi (2019) has covered data from over 140 countries. It says that only a third of the world’s adult population are financially literate. Women, lower-income people, and those with less formal financial education score worst consistently. A study by Fernandes et al. (2014) has identified an important aspects of the relationship between financial education and consumer financial behavior. Notably, correlations in non-experimental studies are positive, whereas experimental studies show much smaller causal effect sizes. Unless it is just-in-time deliver, that is, delivered immediately prior to a specific financial decision, they produce modest and often short-lived behavioural effects.

Hwang and Park (2022) conduct a meta-analysis that distinguishes between objective and subjective financial literacy. There’s often evidence that subjective (self-perceived) knowledge predicts behaviour more than objective test scores. In financial matters, that

evidence leads to the conclusion that confidence and perceived competence are important behavioural predictors. Balasubramnian and Sargent (2020) add a qualification to this notion: inflated self-perceptions of literacy will tend to lead to poor financial outcomes. Therefore, the key may be calibrated, rather than just high, subjective literacy.

### **2.3.2 Asian Regional Evidence**

Grohmann (2018) examines the urban middle class in Bangkok, which offers interesting parallels with Rangpur as an emerging urban centre. Consumers have an understanding of the basic financial concepts but lack the knowledge of the advanced concepts. Increases in literacy leads to greater participation in formal financial instruments, but the efficacy depends on availability and accessibility. Fong et al. (2021) study older adults from Singapore and employ instrumental variable methods. The study finds that higher literacy equals timely repayment of credit cards. They also participate in the stock market and diversify their portfolio in line with their age. According to Lahiri and Biswas (2022), who focus on India, financial literacy significantly improves payment discipline, savings frequency and risk management but access barriers continue to moderate these positive effects for lower-income urban groups.

## **2.4 Bangladesh-Specific and South Asian Evidence**

### **2.4.1 Financial Literacy and Inclusion in Bangladesh**

While not extensive, researchers have increasingly conducted studies on the issue in Bangladesh. The most detailed empirical study focused on Bangladesh amongst what we have reviewed was provided by Hasan, Le, and Hoque (2021). It found, first, that financial knowledge about banks, microfinance products, and mobile banking strongly and significantly predicts access to and uptake of formal financial services.

It is worth noting that the key mediating variable that can convert conceptual financial literacy to participation in the formal sector is digital financial literacy that is knowledge of mobile financial services like bKash. The findings has a direct practical implications for the

residents of Rangpur City Corporation (RPCC). In RPCC, ownership of formal bank account is comparatively low and the usage of mobile financial service platforms is high.

The study by Aziz and Naima (2021) has explored digital financial inclusion in Bangladesh. The authors say that digital financial literacy gives support for adopting digital services and also suggest recommendations on how to use these services effectively. However, social norms and gendered access barriers have significantly moderated these effects. Women in urban Bangladesh have a very basic financial knowledge. But, they face structural and normative constraints that limits them from using formal financial services. This characteristic is particularly relevant for designing inclusive interventions in Rangpur.

#### **2.4.2 Urban Middle Class, Structural Barriers, and Islamic Finance**

According to the study, published in, "Research Journal of Finance and Accounting" in 2023, says that financial literacy is related to payment discipline and adherence to payment commitments among the urban people of Bangladesh. However, more literacy does not indicate more subjective behavior. Some financially literate clients are more risk averse with their investment decisions. Shortly, they have more available choices that may or may not become good. A qualitative study of low-income urban Bangladeshi consumers by Hassan and Ahsan (2025) finds that financial education can significantly improve decision-making and perceived empowerment. However, systemic barriers including distrust of formal institutions, limited physical access to bank branches, cultural preference for informal savings mechanisms like DPS groups, and digital illiteracy constrain behaviour change collectively.

Hoque et al. (2022) introduced an important contextual dimension for Bangladesh i.e. Islamic financial values. As per their SEM-based study, they find Islamic financial literacy is not a significant determinant of attitudes towards Islamic banking products. Rather, the ethical reputation of the products and the values of one's religion dominate the choice of

product. Literacy programmes in Rangpur City, which has ample Islamic banking, should be designed in light of this nuance.

## **2.5 Mediating and Moderating Mechanisms**

### **2.5.1 Financial Capability, Self-Efficacy, and Digital Literacy**

A common finding in the literature is that financial literacy itself does not predict behaviour change. Financial capability, which refers to one's budgeting skills, and self-efficacy are also required (Nunez-Letamendia et al., 2024; Xiao & O'Neill, 2016). Bai (2023) further shows mental budgeting and self-control along with financial literacy, enhance investment decision-making and overall financial well-being, while investment decision-making partially mediates the literacy-well-being relationship. In the fast-growing ecosystem of fintechs, digital financial literacy is becoming a separate and growing dimension. Setiawan et al. (2020) elaborate digital financial literacy positively influences financial behaviour, both in the present and future, amongst millennials in urban areas. Kumar et al. (2022) indicate that digital financial literacy, alongside autonomy and traditional financial capacity, highly impacts the quality of financial decisions and well-being.

### **2.5.2 Psychological Mediators and Demographic Moderators**

Psychological variables are also important mediating variables beyond cognitive ability. The literacy-behavioural relationship in financial planning is mediated by attitudes, perceived behavioural control and subjective norms (Yeo et al., 2023). In their 2021 study, Meneau and Moorthy found that self-control is a key mediator. Even financially knowledgeable people do not act on their knowledge without adequate self-regulatory capacity. Xu and colleagues (2022) introduce the idea of limited attention as a moderating variable, suggesting that the behaviour effect of financial literacy is more pronounced when one has sufficient attention to a financial decision.

According to demographic factors, gender appears to be one of the strongest moderators (Klapper & Lusardi, 2019; Hasan et al., 2021). Key moderators include income, education, religion, and confidence in institutions. Bangladeshi institutions have been losing their credibility over decades of experiences with failures like financial instability and frauds. This has crushed the behavioural returns to financial literacy among low-income urban consumers of Rangpur (Hassan & Ahsan, 2025). Kicova et al. (2025) also demonstrate that machine learning can help partition populations at risk of having low financial literacy allowing for targeted policy attention.

## 2.6 Comparative Summary of Key Literatures

The following table synthesises the key studies reviewed, organised by author, context, key findings, recommendations, and relevance to the Rangpur City Corporation research context.

| Author(s) & Year                     | Context | Key Findings                                                                                                             | Recommendations                                                                        | Relevance to Rangpur City Corporation (RPCC)    |
|--------------------------------------|---------|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------------------|
| <b>Lusardi &amp; Mitchell (2014)</b> | Global  | Financial literacy acts as an essential component of human capital, averting a host of adverse outcomes.                 | Incorporate financial literacy in school curriculum, tailor programs for the deprived. | It serves as a theoretical basis for the study. |
| <b>Klapper &amp; Lusardi (2019)</b>  | Global  | Approximately a third of adults globally have financial literacy. The gaps are greatest for women and low-income groups. | Internationally, expand FL education; women and disadvantaged groups a priority.       | Sets global benchmark data for comparison.      |

| Author(s) & Year                               | Context                            | Key Findings                                                                                                                                                                                             | Recommendations                                                                        | Relevance to Rangpur City Corporation (RPCC)         |
|------------------------------------------------|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------|
| <b>Hasan, Le &amp; Hoque (2021)</b>            | Rural Bangladesh                   | Those who know about banking, micro financing and mobile banking have better chances of availing access to formal financial services. Digital Literacy was found to be the key mediator in the research. | Mobile banking solutions can boost financial inclusion in semi-urban areas.            | Very High — Bangladesh-specific findings.            |
| <b>Fernandes, Lynch &amp; Netemeyer (2014)</b> | Global Meta-analysis (201 studies) | The effects of FL education are moderate, but delivery just-in-time is the most effective.                                                                                                               | Create FL education that links to specific decision points.                            | Critical evaluation of FL education design.          |
| <b>Nunez-Letamendia et al. (2024)</b>          | Spain                              | Financial ability, which refers to skills and confidence, must be more predictive for saving than knowledge, in isolation.                                                                               | Transition from knowledge exclusive to competence oriented FL models.                  | Capability framework directly applicable to Rangpur. |
| <b>Grohmann (2018)</b>                         | Urban Asia (Bangkok)               | The understanding of basic-level products was moderate but weak in advanced-level products. Financial literacy improved the quality of decision making.                                                  | Create product-oriented programs aimed at urban consumers in Asia.                     | High — comparable Asian urban context.               |
| <b>Hassan &amp; Ahsan (2025)</b>               | Urban Bangladesh                   | The empowerment offered by FL education is limited by distrust, limited access and digital illiteracy.                                                                                                   | Structural barriers must be addressed in addition to education programs in Bangladesh. | Very High — directly parallels Rangpur context.      |
| <b>Aziz &amp; Naima (2021)</b>                 | Bangladesh (digital finance)       | Digital financial literacy for MFS (bKash) is effective but moderated by social norms and gender barriers.                                                                                               | Social Norms and Gender Barriers Must Be Addressed by Digital FL.                      | Very High — Bangladesh digital finance context.      |

| Author(s) & Year                           | Context                      | Key Findings                                                                                                                            | Recommendations                                                           | Relevance to Rangpur City Corporation (RPCC)        |
|--------------------------------------------|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Hoque et al. (2022)</b>                 | Bangladesh (Islamic banking) | Islamic financial literacy (IFL) does not significantly affect attitudes; ethical reputation and religious values are more influential. | Adapt initiatives to fit local religions and cultures.                    | High — captures Islamic finance segment in Rangpur. |
| <b>Bai (2023)</b>                          | Emerging economy             | Self-control, together with mental budgeting and FL, improves investment decisions and financial well-being.                            | Develop self-control and mental budgeting with knowledge.                 | High — psychological mediators insight.             |
| <b>Hwang &amp; Park (2022)</b>             | Global Meta-analysis         | Self-perceived FL has a greater influence on behaviour than objective scores.                                                           | Evaluate both literacy dimensions of programs systematically.             | High — measurement design insights.                 |
| <b>Lahiri &amp; Biswas (2022)</b>          | India                        | The use of FL has enhanced payment discipline and savings, but access barriers continue to affect lower-income groups.                  | Link literacy initiatives with financial access programs.                 | High — closest South Asian comparator.              |
| <b>Setiawan et al. (2020)</b>              | Urban Indonesia              | Digital financial literacy impacts present and future financial actions.                                                                | Incorporate Digital Literacy in Urban Food Learning for Youth Consumers   | High — digital finance, comparable context.         |
| <b>Balasubramnian &amp; Sargent (2020)</b> | USA                          | Overconfidence undermines prudent behaviour, whilst inflated self-perceptions of FL predict poor outcomes.                              | Evaluate actual and perceived literacy; construct calibration activities. | Moderate — important behavioural nuance.            |
|                                            |                              | The combination of financial and digital literacy promotes                                                                              | Include education on digital and financial                                | High — South Asian developing context.              |

| Author(s) & Year                       | Context                               | Key Findings                                                                                                               | Recommendations                                                                             | Relevance to Rangpur City Corporation (RPCC) |
|----------------------------------------|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------------------------------------|
| <b>Lyons et al. (2020)</b>             | South Asia & Sub-Saharan Africa       | financial resilience in the global south.                                                                                  | literacy in emerging markets.                                                               |                                              |
| <b>Negi &amp; Jaiswal (2024)</b>       | Global Systematic Review (79 studies) | Financial literacy has positive impacts on saving, investments, and debt management. It calls for stronger causal designs. | Adopt long-term causal frameworks and various behavioural assessments.                      | Very High — state-of-the-art synthesis.      |
| <b>Fong et al. (2021)</b>              | Singapore (older adults)              | FL is positively related to repayment of credits on time and stock ownership and risk diversification.                     | Create FL interventions for specific age groups using representative sampling.              | Moderate-High — Asian urban context.         |
| <b>Murendo &amp; Mutsonziwa (2016)</b> | Zimbabwe (urban & rural)              | Financial literacy (FL) boosts both official and unofficial savings, especially official savings.                          | Programs aimed at boosting savings literacy; informal financial networks.                   | Moderate-comparable developing country.      |
| <b>Kicová et al. (2025)</b>            | Central Europe (Slovakia)             | Through machine learning models, literacy levels can be predicted. Higher literacy reflects more rational shopping.        | Simplifying the message: Identify low literacy populations using predictive analytic tools. | Moderate-methodological innovation.          |

Table 1: Comparative Summary of Major Studies on Financial Literacy and Consumer Financial Behaviour

## **2.7 Research Gaps and Policy Implications for Rangpur City Corporation**

### **2.7.1 Core Hypotheses for the Rangpur Context**

Based on literature review, a critical hypotheses can be developed for financial literacy and consumer behaviour in the region of Rangpur. A direct correlation is expected as higher financial literacy improves formal saving, budgeting, borrowing and participation in investment products (Negi & Jaiswal, 2024; Klapper & Lusardi, 2019; Hasan et al., 2021). A further results clearly show that the relationship between infrastructure quality and usage of mobile financial services is positive, significant and strong. Similarly, the relationship between digital financial literacy and usage of mobile financial services is also positive, significant and strong. In addition, there is a need for attention to such behaviours which are not the same in all groups (Hoque et al., 2022).

### **2.7.2 Structural Gaps and Policy Recommendations**

Several structural barriers are probably existent in the context of Rangpur, according to literature. Lack of trust in institutions, gender norms dictating decision-making power regarding finances, and the digital divide create secondary layers of exclusion that literacy programmes must explicitly address (Hassan & Ahsan, 2025; Aziz & Naima, 2021). Based on the literature, addressing these structural barriers is not only complementary to financial literacy interventions, it is a pre-requisite for their effectiveness in some respects.

A quality research study on financial literacy in Rangpur City Corporation must incorporate several design imperatives identified from the literature review. The measure of financial literacy should include other items, context-specific, like mobile banking (bKash, Nagad), microfinance products, Islamic banking principles, and informal finance (Hasan et al., 2021; Hoque et al., 2022). It is advisable to create an index with objective and subjective criteria. Behavioural outcomes should be measured across different domains such as

formal/informal saving, budgeting practices, credit use and debt management, investment behaviour and digital financial service adoption (Negi & Jaiswal, 2024; Setiawan et al, 2020). The mediators and moderators namely financial self-efficacy, digital financial literacy, trust in institutions, gender, income, religiosity can be tested through structural equation modelling or mediated moderation analysis (Bai, 2023; Yeo et al., 2023).

Policy programs should be designed as capacity-enhancing interventions that incorporate budgeting skill, digital financial literacy, self-control training, as well as conceptual financial education (Nunez-Letamendia et al., 2024; Bai, 2023). To maximize their influence on behaviour, these programs should be administered on an ad-hoc basis linked to a specific financial decision (Fernandes et al., 2014).

It is necessary to design programs with specific focus on women to close these gaps. This applies to both knowledge and social and institutional norms that constrain their financial choices (Aziz & Naima, 2021). Programs must also be culturally calibrated for the Islamic finance context that prevails in Rangpur (Hoque et al., 2022).

## **2.8 Conclusion**

The research on financial literacy and consumer financial behaviour transcends geographical boundaries. In other words, it includes literature from many regions and countries, whether developed or developing. Furthermore, it excludes redundant or duplicative studies. Thus, this subsection will explore relevant literature. The relationship between knowledge and action is fostered by capability factors, including self-efficacy, digital literacy and self-control. However, the relationship will be moderated by contextual factors such as gender, income, institutional trust, cultural norms and access to formal financial infrastructure.

In urban South Asia, including Bangladesh, there are signs of financial literacy. At the same time, individuals are increasingly exposed to complex financial products. This creates a growing gap between knowledge and action. This gap is particularly acute for low-income urban consumers. The same goes for women and those with low levels of digital literacy. The

reviewed literature will provide a strong theoretical basis as well as an empirical basis for a rigorous study on the impact of financial literacy on the consumer financial behaviour of Rangpur City Corporation.

With due consideration of the multi-dimensionality of financial literacy, the behavioural mechanisms by which literacy effects outcomes, and the structural and cultural conditions influencing financial choices in urban Bangladesh, such a study could make a substantial contribution to knowledge, as well as to the design of appropriate financial education and inclusion policies in the region. In Rangpur, strengthening what consumers know is important but it is not enough. It is necessary for building their capacity while they take financial decisions.

## **THEORETICAL FRAMEWORK**

### **3.1 Introduction**

A theoretical framework is the conceptual blueprint that helps any scientific study when it is conducted. It provides a basic foundation for interpreting findings, conceptualizing relationships, and links the existing knowledge in conducted research. The current study analyzes the impact of financial literacy on consumer financial behavior among the people of Rangpur City Corporation, Bangladesh. For this purpose, a theoretical framework is designed by combining three mutually connected theories. These theories are: “Theory of Planned Behavior (TPB)” by Ajzen (1985), “Financial Literacy Framework” by Lusardi & Mitchell (2008) and “Human Capital Theory” by Becker (1964) & Schultz (1961). Collectively, these frameworks deliver a strong foundational concept. It not only shows the reasoning behind financial decision-making, but also the interaction between financial outcomes and knowledge.

### **Human Capital Theory:**

The basis of economic rationale in this study for analyzing financial literacy is human capital theory. The theory has been proposed by Becker (1964) and Schultz (1961). The theory says that the productivity of people can be enhanced by knowledge, skills, and capabilities. It will also lead to improved economic conditions over time. In this matter, financial literacy and personal finance helps the purpose of human capital and this is a cognitive or behavioral resource quality. It helps to optimize resource usage, minimize wasteful spending, and maximize financial security.

When Human Capital Theory is applied in this study, It has proposed a number of propositions. Financially literated people can make decisions better due to financial training, formal education, or experience. It also includes more productive investment options, higher savings rates, reduced risk of debt traps, and increased access to formal financial services.

Within the context of the RPCC, the role of financial literacy is particularly important in the presence of informal economic activities, low formal banking penetration in select segments of the informal economy, and poor financial decisions among under-served households. Consumers will be able to engage more effectively with the formal financial system owing to financial literacy which is part of human capital.

### **Theory of Planned Behavior (TPB):**

The Theory of Planned Behaviour (TPB) was originally developed by Icek Ajzen in 1985. His further work (Ajzen, 1991) refined the theory for better application. It is widely applied to social psychology and the behavioral economy. According to this theory, human behavior is not merely due to impulse or situation. But behaviour takes a regular shape due to intent to behave in a certain way. And this intent is itself influenced by three antecedents behaviour. And they are (1) Attitude toward behaviour, (2) subjective norm, and (3) Perceived

behaviour control. The TPB enables a deep understanding of personal financial decision-making. Financial behaviors, such as saving, investing, and managing debt, are planned behaviours as it requires great intention and cognitive thought. Thus, the TPB is most suited to financial behaviours.

The Theory of Planned Behavior (TPB) – originally conceived of Ajzen (1985) with subsequent refinements (Ajzen, 1991) – is one of the most widely used models in social psychology and behavioral economics. The theory suggests that human behaviour is not simply impulsive or a response to an external factor, and pulling the strings of human behaviour is the intention to behave a certain way. This intention to behave a certain way has three primary antecedents. These are: (1) Attitudes towards the behaviour, (2) Subjective norms, and (3) Perceived behaviour control. In financial decision-making within the personal sphere, the TPB is a particularly powerful explanatory framework because saving, investing, managing debt, or taking risks are quintessentially planned behaviours that demand deliberative intention and cognitive activity.

### **Component 1: Attitudes toward Financial Behavior**

In the context of the TPB, attitudes refer to an overall evaluative orientation towards performing an act. In finance, attitudes refer to one's basic beliefs as to whether saving money is worthwhile, is investing a good idea, is debt hazardous, and whether taking calculated financial risks pays off. According to Imoize(2015), the outlook of a person is determined by the available financial information and how it is constructed and conditioned by financial literacy. The results of this research show that the respondents from RPCC, where saving is more favourable than spending according to 52% people, feel that financial literacy is important for proper conduct with money by 70%. When an individual has higher financial literacy, the attitude they have towards prudent financial management is more positive and more accurate.

### **Component 2: Subjective Norms**

Subjective norms are the social influence component of the TPB in particular, the perception of social pressure from people close to you (family members, friends, colleagues, and people

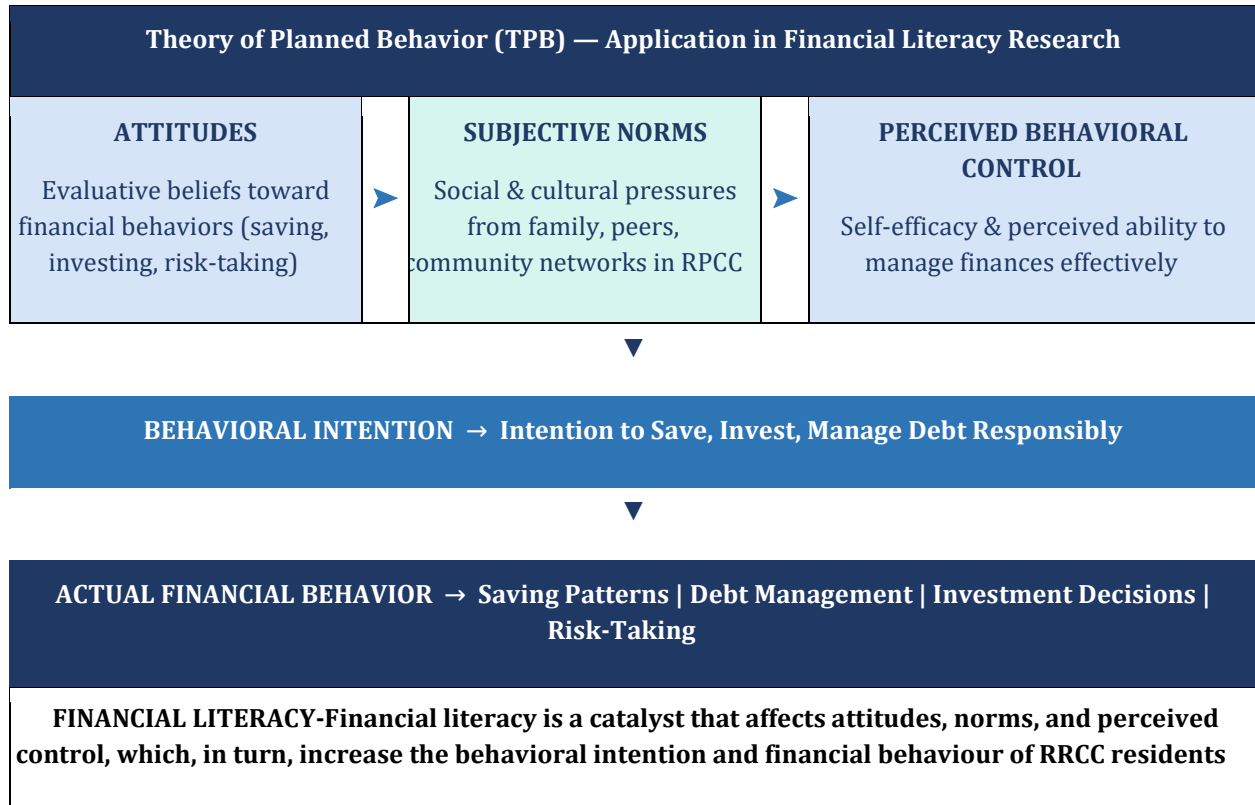
in the community) to perform a behaviour or not. In Rangpur City Corporation, a substantial portion of the population relies on remittances, lives in joint family arrangements, and has strong community ties. In this context, social norms regarding finances are particularly powerful. A social network that always promotes disciplined saving, formal banking, and long-term investment. Social norms makes an individual more likely to take action internally and form intentions to do the above-mentioned. On the other hand, in places where informal borrowing, distrust of financial institutions, and community norms of risk-averse attitudes toward investment are the norm, even literate people in money may experience social resistance to applying knowledge. According to the KII findings in this research, community leaders and religious leaders strongly influence the norms that govern making financial decisions in RPCC, which means subjective norms are an important mechanism for designing financial literacy program.

### **Component 3: Perceived Behavioral Control**

Perceived behavioral control (PBC) reflects a person's belief regarding how capable they are of doing a particular behavior, and it broadly fits into the idea of self-efficacy in cognitive psychology. In the financial domain, PBC refers to very simply, the individual's confidence in the ability to budget, select investment options, manage debt, or assess financial products. The amount of respondents who believe they are good with financial matters stood at 50% while 30% were neutral and 20% believed they were not capable. Having a good knowledge of finances improves confidence by equipping individuals with knowledge, skill, and practical tools to confidently deal with all financial decisions. Where financial literacy is lacking, PBC is proportionately less and even positive savings/investment attitude may not lead to behavioral intention.

The RPCC integrates these three components. According to the TPB model, it is important for financial literacy programs to improve all three factors simultaneously. Merely raising financial knowledge leads to little behavioral change. Programs that enable community support and confidence building in financial skills work better. They become more likely to turn awareness into real action.

**Figure 3.1:** Theory of Planned Behavior (TPB): Application to Financial Literacy and Consumer Financial Behaviour in RPCC (Adapted from Ajzen 1985)



### Lusardi and Mitchell's Financial Literacy Framework (2008):

The financial literacy framework developed by Annamaria Lusardi and Olivia S. Mitchell served as the third theoretical pillar of this research. Their framework was first presented in their influential 2008 paper in the American Economic Review. Furthermore, it was elaborately discussed in their 2014 article in the Journal of Economic Literature. This model

is acknowledged to be the most supreme conceptualization of financial literacy found in the academic literature and has been used in studies assessing financial literacy in over 80 countries. According to Lusardi and Mitchell, three components financial knowledge, financial behaviour, and financial skills are integrated when assessing an individual's financial literacy. Further, these three dimensions reinforce each other to produce better financial outcomes.

### **Dimension 1: Financial Knowledge**

Financial knowledge is an understanding of essential financial concepts that helps one make informed financial decisions. Lusardi and Mitchell operationalize financial knowledge with “the Big Three” financial literacy questions which test understanding of compound interest, inflation, and risk-diversification, the three concepts that are most predictive of financial behavior in cross-country studies. This research extends the financial literacy test to five additional concepts particularly relevant to the RPCC context: understanding of loan interest rates and their implication on debt management; familiarity with various formal savings products offered by banks and non-bank financial institutions; awareness of inflation and its impact on savings and purchasing power; understanding of risk-return tradeoff in investment decisions; and understanding of credit management principles. The survey shows, 42% RPCC respondents reported having a high or very high level of confidence in being able to comprehend the above concepts like the Bangladesh Bank did in 2020 which found out only 44% adults of the country have basic financial conceptual literacy.

### **Dimension 2: Financial Behavior**

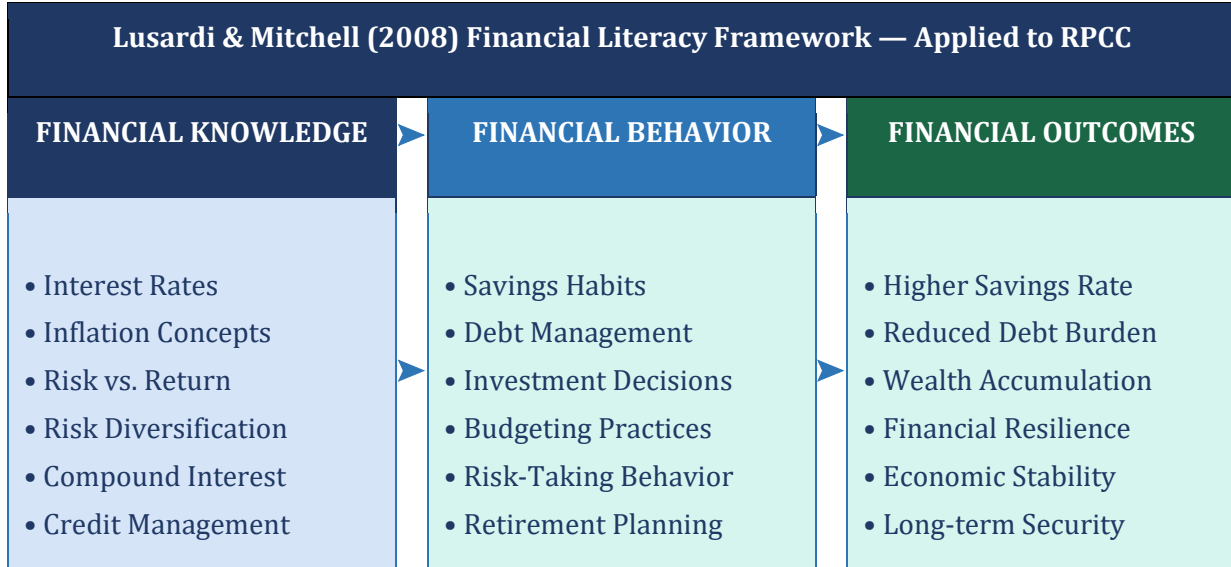
In Lusardi and Mitchell's scheme of things, financial behavior indicates actual financial choices and actions which people make including how they save, borrow, invest and budget. Financial behaviour is, on the one hand, the principal dependent variable in this study, and secondly, also an intermediate variable between financial knowledge and financial outcomes. Most RPCC residents or 60% made a monthly budget. However, only 45% of those with a budget review it regularly. On the positive side, 40% invest in financial instruments. To add, 52% prefer saving for goals instead of spending it unnecessary. On the negative side,

only 45% of residents manage their debt properly. Other testing, consistent with the Lusardi and Mitchell framework, yielded strong predictive power of formal financial education on behavioral outcomes: a regression run under this study produced an R-squared of 0.799. Thus, it noted that formal financial education explains around 80% of the variance in monthly savings behavior, thereby powerfully validating the central proposition of the framework that knowledge drives behavior.

### **Dimension 3: Financial Skills**

Financial skills are the applied/practical dimension of financial literacy, which is the ability to take knowledge about finance and act competently. Lusardi and Mitchell distinguishing between two key concepts: first, the distinction between declarative financial knowledge, which encompasses knowledge of the fact that compound interest operates to affect savings, and procedural financial skill, which is the ability to calculate the effect of compound interest on a specific savings. Second, procedural skill is the actual usage of the calculation in order to make a decision about the savings amount. The RPCC makes the case that financial skills are particularly impactful: a resident who understands that managing her debt is important, but lacks the numeric skills to compare loans across lenders, or the practical skills to make a monthly budget, cannot convert her knowledge into a financial improvement. According to the study, financial skills concern a variety of domains, namely budgeting competent, savings calculating, investment assessing and debt managing skills. After evaluation, it was found that formal financial education serves as the top-skilled predictor of financial skill development and subsequent behaviour.

**Figure 3.2:** Lusardi & Mitchell's (2008) Financial Literacy Framework in the Research Context



## 3.2 Analytical Framework

The analytical framework established for this research turns the above theoretical foundations into a coherent model that shows relationships among growing up variables. The framework is based on the mediator model: independent variables (demographic, knowledge, attitudinal, educational, economic and social variables) influence the level of financial literacy, which subsequently mediates the independent variables' effect on dependent variables (savings, debt management, investment and spending behaviour). The framework, a synthesis of the three-component model of behavioral intention by TPB and the knowledge-behaviour-outcomes chain by Lusardi and Mitchell, reflects the adaptation of the researcher to the local socioeconomic context of Rangpur City Corporation.

## **Independent Variables (IVs)**

### **➤ Demographic factors:**

- Age
- Gender
- Education level
- Income level
- Occupation

### **➤ Financial knowledge:**

- Interest rates
- Diversification
- Inflation

### **➤ Financial Attitudes:**

- Propensity to save / invest

### **➤ Financial Education:**

- Participation in programs

### **➤ Economic Factors:**

- Income level, employment

### **➤ Social Factors:**

- Family norms, culture

The financial literacy levels of individuals will be determined by antecedent factors that represent our independent variables in this framework. The structural engines that determine access and development of financial literacy comprise demographic variables like gender, age, educational qualification, income level, and occupational status. Studies often show that higher education, higher income, and being male is associated with having higher levels of financial literacy in the context of Bangladesh. However, the gender-distributed (55% male and 40% female) sample of this study aims to explore the financial literacy across genders. The financial literacy that a person develops is based on financial knowledge, financial attitude, participation in financial education programme, economic factors as level of income and stability of employment and social and cultural factor as family financial norm, community expectation and cultural attitude towards debt and saving.

### **Mediating Variable: Financial Literacy Level**

Financial literacy is the key mediating variable in the research framework, which refers to the outcome of changes in financial behaviour from the input of independent variables. In this context, financial literacy refers to the knowledge of financial concepts, the ability to apply this knowledge in a financial decision-making context (financial skills), and the mental model towards the management of money (positive or negative financial attitude). This multi-dimensional conception corresponds with the understanding of Lusardi and Mitchell (2008), as well as the OECD/INFE (2011) definition of financial literacy in terms of financial knowledge, behaviour, and attitudes.

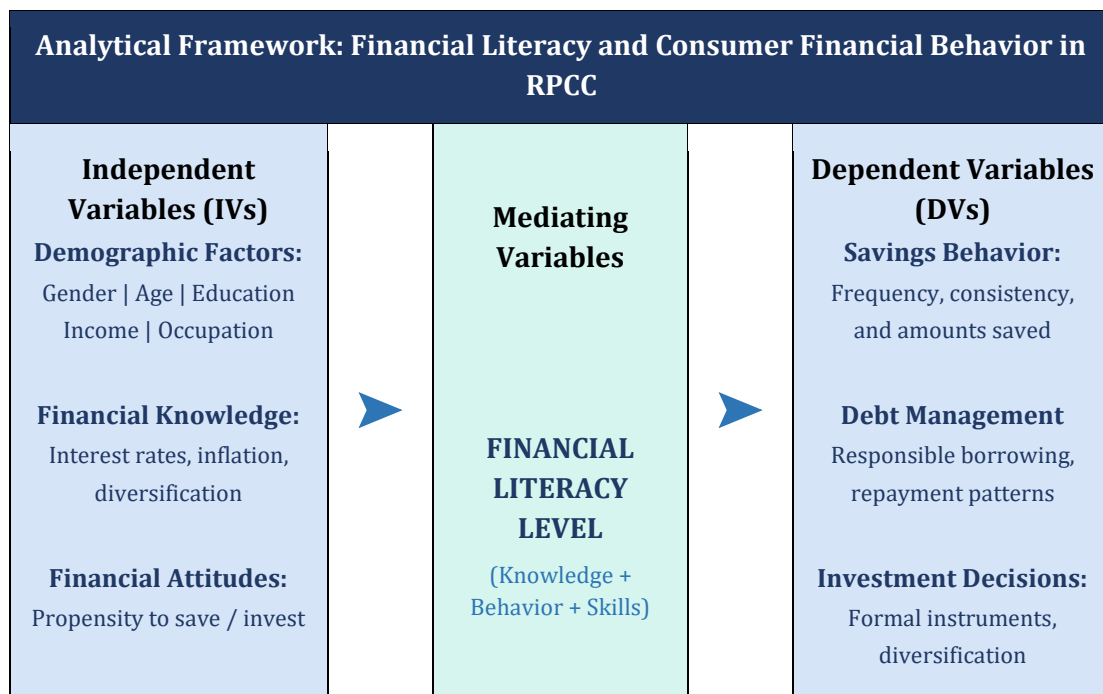
### **Dependent Variables (DVs)**

- **Savings Behaviour:** Savings frequency, savings rate, emergency fund formation, goal-oriented saving
- **Debt Management:** Prudent borrowing, timely repayment, avoidance of predatory/informal credit

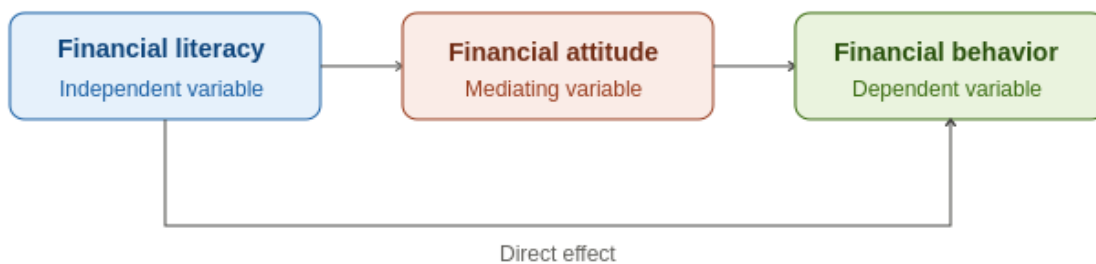
- **Investment Decision-making:** Portfolio diversification, risk-return alignment, informed product selection
- **Budgeting & Expenditure Control:** Income-expense tracking, priority-based spending, surplus management
- **Formal & Digital Financial Services Adoption:** Bank account usage, mobile banking, insurance and pension uptake.

The dependent variables within this model refer to the specific financial behavioural outcome variables of interest such as savings behaviour: frequency, regularity and amount saved; debt management practices: responsible borrowing and repayment; investment decisions: whether to invest in a formal financial instrument and portfolio diversification; spending behaviour: budgeting, impulse control and planning; and risk-taking behaviour: whether to take risks. These five behavioral dimensions mentioned in this research define consumer financial behavior. They can be directly measured through the tools and interview conducted in this research.

**Figure 3.3:** Analytical Framework: Financial Literacy as a Mediating Variable in RPCC



|                                                                                                                                                                                   |  |  |  |                                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Financial Education:</b><br/>Participation in programs</p> <p><b>Economic Factors:</b><br/>Income level, employment</p> <p><b>Social Factors:</b> Family norms, culture</p> |  |  |  | <p><b>Spending Habits:</b><br/>Budgeting, impulse control, frugality</p> <p><b>Risk-Taking:</b><br/>Calculated financial risk acceptance</p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------|



Financial literacy improves financial attitude/confidence, which leads to better consumer financial behavior. Financial literacy may also directly affect financial behavior.

### 3.3 Research Hypotheses

In this study, there are some null hypothesis and alternative hypothesis:

| Null Hypothesis ( $H_0$ )                                                                        | Alternative Hypothesis ( $H_1$ )                                                                     |
|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| $H_0(a)$ : Financial literacy does NOT significantly impact savings behavior in RPCC.            | $H_1(a)$ : Financial literacy has a significant POSITIVE impact on savings behavior.                 |
| $H_0(b)$ : No relationship between financial concept understanding and calculated risk-taking.   | $H_1(b)$ : Significant association between financial concept understanding and risk-taking.          |
| $H_0(c)$ : No association between educational qualification and financial concept understanding. | $H_1(c)$ : Significant association between educational qualification and financial concepts.         |
| $H_0(d)$ : No relationship between formal financial education and effective debt management.     | $H_1(d)$ : Significant positive relationship between formal financial education and debt management. |

## THE DESIGN OF THE RESEARCH

### 4.1 Research Approach:

A mixed-method research approach was used in this study. Both qualitative and quantitative research techniques were applied in order to get a better understanding of the relationship between financial literacy and consumer financial behaviour in Rangpur City Corporation (RPCC). The mixed-method design is ideal for the multifaceted objectives of the study. It allows the accurate measurement of levels of financial literacy, and their behavioural correlation through quantitative analysis. Further, it allows contextual exploration of the

social, psychological and structural factors mediating the financial literacy–behaviour nexus through qualitative analysis. According to Creswell and Clark (2010), mixed-method designs are most appropriate when the nature of the research problem requires both the precision of quantitative and the in-depth qualitative. This research fully matches the condition.

**Qualitative Research Component:** The qualitative part of this study is necessary in order to capture aspects that are not measured by numbers. In this study, participants lived experience along with expert's comments and their personal opinion have been gathered through In-Depth Interviews (IDIs) and Key Informant Interviews (KIIs). From the inputs of IDIs and KIIs, it is clearly visible that how's and whys behind the level of financial literacy and behavioral pattern of the residents of RPCC. Specifically, it highlights cultural norms, access to digital finance, trust in institutions, and barriers to promote financial literacy in the community level.

**Quantitative Research Component:** The quantitative section of this study collects numerical data that requires statistical analysis. A survey with semi-structured questionnaire was conducted among the residents of RPCC. The sample size of the survey was 400 and financial literacy, financial behavior, and demographic characteristics have been collected in the survey. The quantitative data have tested four hypotheses of this study through statistically tests techniques such as: regression analysis, chi-square test, and correlation coefficient analysis. The quantitative approach has greatest strength because it has the ability to reveal consistent patterns and relationships among a population. It can also test inference and hypothesize direction by producing generalizable results among the study population.

## 4.2 Types of the Research

This research has applied two complementary research types named descriptive research and correlational research:

**Descriptive Research:** The descriptive section of this research aims at establishing the financial literacy level, financial behaviour of RPCC residents. It tries to establish that aims in an accurate, complete, detail and demographic disaggregated manner. This type of study or research answers the question of what is going on as to what is the level of financial literacy in RPCC, how it varies across sub-groups and what are the important financial behaviour patterns of the people. Findings of the study are descriptive in nature. To clarify, almost half (42%) of the respondents report being highly or very highly confident of their financial literacy skills. Also, 65% of them have never received formal training. Further, almost 60% report that they maintain a monthly budget. Finally, 40% of the respondents state that they currently invest in formal financial instruments.

**Correlational Research:** The correlation component looks at statistical relationships between financial literacy and specific financial behaviours. Correlational research refers to questions that start with "what is the relationship between" for example, is there a significant positive relationship between taking formal financial education and savings rates? Do qualifications affect understanding of financial concepts? Is formal financial training related to good debt management? Through regression analysis, chi-square tests and correlation coefficients, this study is able to find the direction and magnitude of these relationships tests for their statistical significance will generate evidence based conclusion regarding the influence of financial literacy on consumer financial behaviour in RPCC.

### 4.3 Data Collection Technique

The usage of the following data collection techniques in an integrated triangulated design was employed in order to conduct a rigorous examination of the influence of financial literacy on the financial behaviour of consumers of Rangpur City Corporation.

#### **Surveys and Questionnaires:**

The main design will be a structured semi-structured questionnaire given to 400 residents of RPCC. The questionnaire consists of four sections: (i) Demographic Information gathers

the details of gender, age, marital status, educational qualification and monthly household income of the respondents; (ii) Financial Literacy measures the confidence of the respondents in their understanding of financial concepts (interest rate, inflation, risk vs. return, risk diversification), the history of formal financial education, method of controlling finance, budgeting behaviour and financial self-efficacy; (iii) Consumer Financial Behaviour measures the spending behaviour, amount and reason of savings, investment behaviour, types of investment, debt behaviour, fronting of employment and financial behaviour linkages; and (iv) Financial Education and Awareness measures the participation in financial education programmes, source of earning, and opinion of respondents on effective financial literacy promoting method.

### **Key Informant Interviews (KIIs):**

Interviews were conducted with five key informants possessing professional knowledge and first-hand experience relevant to financial literacy and financial services in RPCC. The expert panel included a Bank Manager with operational experience in RPCC banking services, an RPCC Administrative Officer having local governance and community development knowledge, an Officer of Financial Institution working with micro finance or other non bank financial products in the region, an academic expert in public administration or economics with research expertise in financial inclusions and a Representative from NGO implementing financial inclusion program in Rangpur City Corporation. Structured interviews were carried out through KIIs that covered current financial literacy programmes/initiatives, barriers to promotion of financial literacy, effective means of doing so, use of digital technology and suggestions for policy-level interventions specific to RPCC.

### **In-Depth Interviews (IDIs):**

A selection of a range of RPCC residents were done mostly based on their demographics so as to include a complete spectrum of the city's population on the basis of all important parameters like income, gender, occupation, education, etc. Total 20 in depth interviews were conducted. The IDI generated a lot of qualitative evidence regarding people's personal finance, the personal aspects of their financial decision-making choices, difficulties in

handling debt, problems with saving and investing, and lived experiences with and perceptions of financial literacy interventions and formal financial institutions. According to these personal narratives, the survey data also offer a better understanding of the statistics.

### **Document and Content Analysis:**

Data related to financial education was obtained through a systematic analysis of the financial literacy reports and guidelines (2020, 2022) from Bangladesh Bank. The data on financial literacy is taken from the Financial Inclusion Insights (FII) Programme conducted globally by the international think-tank InterMedia Ltd. and relevant economic and demographic reports related to the RPCC. The government's policy papers on financial inclusion and financial literacy education and other related papers were also analyzed. Insights gained from the document analysis offered important contextual information on the national financial literacy policy environment within which RPCC financial literacy practices are located, and revealed the specific policy gaps which the research will address.

## **4.4 Sources of Data**

### **Primary Sources**

The primary data for this research were generated directly from three channels: the structured questionnaire survey administered to 400 RPCC residents; Key Informant Interviews with five subject matter experts; and In-Depth Interviews with 20 RPCC residents covering a range of demographics. These primary sources produce the data resulting in the findings and analysis of the study.

### **Secondary Sources**

Among the secondary data sources it would be existing surveys and research studies related to financial literacy and behavior conducted in Bangladesh (i.e., the existing studies of the FII Programme, Bangladesh Bank surveys, CPD studies, ADB reports, etc.); census and demographic data for Rangpur City Corporation; reports and publications of financial institutions operating in the RPCC area; government policies, programs, and initiatives

related to federal inclusion and financial literacy (i.e., Bangladesh National Financial Inclusion Strategy, Bangladesh Bank Financial Literacy Guidelines 2022, etc.); peer-reviewed academic articles and journals of financial literacy, behavioral economics, and public administration; media reports, financial news articles, and publications related to financial literacy in northern Bangladesh.

## 4.5 Study Area

The study will be conducted in Rangpur City Corporation (RPCC) which is located at Rangpur District in north-western part of Bangladesh. RPCC was established a city corporation in 2012 by City Corporation Act. Furthermore, the 33 administrative wards of RPCC are the administrative, commercial, and cultural center of the Rangpur Division (most northern administrative division of Bangladesh). Located roughly 300 kilometers north of Dhaka, the city can be reached by road and rail transport. Approximately 550,000 residents live in RPCC, which has an approximate area of 116 square kilometers.

The socioeconomic profile of Rangpur City Corporation makes it an appropriate and under-researched site for financial literacy research in Bangladesh. The economy of the city is that it is a regional centre for agricultural trading. It is also at the centre for all services. The major economic activities include wholesale and retail trade of agricultural products (mainly potato which is a major cash crop of Rangpur region) small and medium enterprise in manufacturing and trade; public sector employment in government offices educational institutions and health care services; and large remittance-dependent household income from members working in Dhaka and abroad. Many households in peripheral wards of RPCC are engaged, directly or indirectly, in agricultural production. Their involvement creates a seasonal income earning pattern. This is a vital factor that impact savings behavior and financial vulnerability. The diverse areas in which the RPCC calls were selected include central commercial areas, established residential wards and peripheral wards to ensure that the sample reflects the socio-economic heterogeneity of the urban population.

## 4.6 Sampling

Due to the varied demographic profile of people living in Rangpur City Corporation which includes people of various age groups, income levels, educational qualifications, occupations and both sexes, the study has adopted an appropriate differentiated sampling procedure to conduct the quantitative and the qualitative survey so that maximum representativeness, diversity and analytical insight generation are achieved.

### **Quantitative Survey: Stratified Random Sampling**

A stratified random sampling technique was used for the structured questionnaire survey (n=400). According to age group, gender, educational level and residential ward type (central versus peripheral), the RPCC population was first stratified. After that, random samples were taken from each stratum to ensure that the final sample of the survey had a balanced representation of the demographic representation within the survey. Stratified random sampling is the most suitable technique for this study as it prevents the results from being dominated by a single demographic. It also allows for subgroup analysis and produces a sample that is more accurately representative of population diversity at RPCC than simple random sampling would guarantee due to the city's population diversity.

### **Qualitative Research: Purposive Sampling**

A purposive sampling method was used for qualitative research components key and in-depth interviews. The selection of KII participants was based on their professional expertise in financial literacy, financial services, and community development in Rangpur City Corporation. Participants for the IDI were purposively selected from the RPCC population to achieve maximum demographic variability (gender, age, income, education, occupation). By gathering qualitative data using this approach, the qualitative data can draw on different financial experiences, perspectives and contexts, which enhances the analytical richness and transferability of qualitative findings.

## 4.7 Sample Size

The structured questionnaire survey used a sample of 400 respondents which is statistically adequate to perform correlation and regression analysis in this research. The academic research monograph of this nature requires a sample size of 400 from the estimated population of 7,08,570 (Population & Housing Census 2022, BBS) of Rangpur City Corporation(RPCC).

**Figure 4.2:** Data Collection Methods, Instruments, Sample Sizes, and Respondents for This Research

| Data Collection Method  | Instrument                       | Sample Size | Respondents                                                             |
|-------------------------|----------------------------------|-------------|-------------------------------------------------------------------------|
| <b>Survey</b>           | Semi-structured Questionnaire    | <b>400</b>  | Residents of Rangpur City Corporation                                   |
| <b>IDIs</b>             | In-Depth Interview Guide         | <b>20</b>   | RPCC residents (diverse demographic groups)                             |
| <b>KIIs</b>             | Key Informant Interview Protocol | <b>5</b>    | Bank Manager, NGO Officer, Academician, RPCC Official, Financial Expert |
| <b>Content Analysis</b> | Document Review                  | <b>N/A</b>  | Bangladesh Bank reports, Government documents, RPCC economic reports    |

### Sample Size Calculation (Cochran's Formula):

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

Where:

- $Z = 1.96$ (95% confidence level)

- $p = 0.5$ (maximum variability)
- $q = 1 - p = 0.5$
- $e = 0.05$ (5% margin of error)

Using the formula:

$$n_0 = \frac{(1.96)^2(0.5)(0.5)}{(0.05)^2} ; n_0 = 384.16$$

So, the initial sample size is **384 respondents**.

### Finite Population Correction (FPC)

Since the population is finite ( $N = 708,570$ ):

$$n = \frac{n_0}{1 + \frac{n_0 - 1}{N}}$$

$$n = \frac{384.16}{1 + \frac{384.16 - 1}{708570}}$$

$$n \approx 384$$

### Final Minimum Sample Size:

Population (N): 708,570

Confidence Level: 95%

Margin of Error: 5%

Minimum Sample Size: 384 respondents

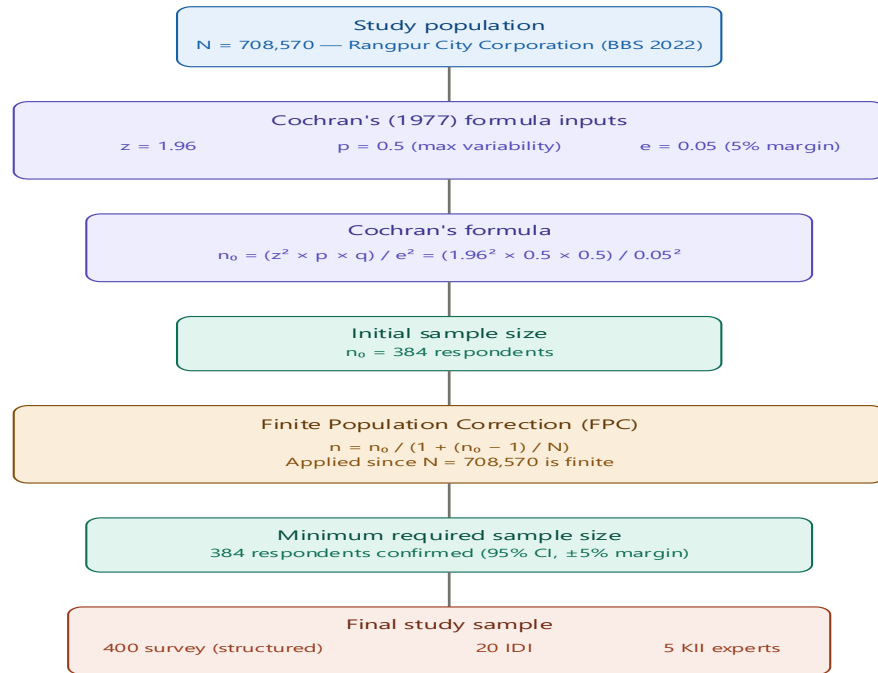


Figure: Sample Size using Cochran's Formula (1977)

Rangpur City Corporation has a population of 708,570 according to the Population and Housing Census 2022. Cochran (1977) sample size determination formula with 95 percent confidence level & 5 percent sampling error calculated the minimum required sample size to be 384 respondents. As a result, data for this study from 384 respondents. The 20 IDI participants were sufficient for qualitative data analysis. The selection of the five KII specialists was made purposely to showcase the entire range of institutional points of view.

## 4.8 Statistical Tools and Analysis

The following tools and techniques have been applied in the mixed-method research design a quantitative statistical analysis and qualitative thematic analysis:

### **Qualitative Analysis (Thematic Analysis)**

For qualitative data analysis, **NVivo and ATLAS.ti** software are used in this research. Thematic analysis was conducted for qualitative data from KIIs and IDIs. Braun & Clarke (2006) six-phase process was followed for analysis of the data. The phases include familiarization with data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. The qualitative analysis identified key themes including barriers within RPCC to financial literacy (literacy/language barriers, mistrust of institutions, financial infrastructure issues), effective financial literacy promotion strategies, the role of digital technology in the delivery of financial literacy, and the social and cultural dimensions of financial decision-making in northern Bangladesh. By employing triangulation, qualitative themes complement the quantitative results to produce richer and more valid conclusions about the study.

### **Quantitative Analysis ( IBM SPSS and Microsoft Excel)**

The quantitative data from the survey are analyzed with **IBM SPSS Statistics** and **Microsoft Excel** Software. While using these softwares, the following techniques have been followed: (i) Descriptive Statistics (Frequencies, percentages, means, and standard deviations of all survey variables), (ii) Regression Analysis, (iii) Chi-Square Test, (iv) Pearson correlation coefficient, and (v) Data visualization. These statistical tools have helped to test the hypotheses and finding out the relationship between financial literacy and behavior of consumers with empirical evidence.

## **4.9 Limitations of the Research**

Every research is not above limitations. This research has some limitations also. By addressing these limitations, it will ensure accurate interpretation of research findings and this will guide future research conducted in this area in the right track.

Table 4.3: Summary of Research Limitations and Mitigation Strategies

| Limitation                            | Explanation & Mitigation                                                                                                                   |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Sampling Bias</b>                  | Stratified random sample reduces sampling bias. But, it can not fully eliminate any selection bias across the 33 wards of RPCC.            |
| <b>Self-Report Bias</b>               | Survey respondents may give socially accepted answers.                                                                                     |
| <b>Sample Size Constraint</b>         | Research findings are indicative for RPCC urban context and IDIs sample size is not determined by any formula.                             |
| <b>Cross-Sectional Design</b>         | A cross-sectional design does not always fits in temporal and seasonal variations of consumer financial behavior.                          |
| <b>External Variable Control</b>      | Changes in government policy, inflation shock, change in economic condition of the study area is not under control. It can change anytime. |
| <b>Financial Literacy Measurement</b> | The complexity of financial literacy might be underestimated in self-reports. It requires multiple indicators to address properly.         |

## FINDINGS AND ANALYSIS

This chapter presents the empirical results of this study that has been collected through structured survey, in-depth interviews (IDIs), and key informant interviews (KIIs). Also, this chapter has been divided into six sections. They are: (i) demographic information of respondents, (ii) financial literacy of respondents, (iii) consumer financial behavior of respondents, (iv) KIIs findings, (v) statistical data analysis, and (vi) overall findings. To improve the interpretations of this report, visual diagrams, regression tables, and chi-square outputs have been used. The analysis including four hypothesis tests that are the synthesis of the empirical findings of the study. It has important implications for future policy and practice in northern urban Bangladesh.

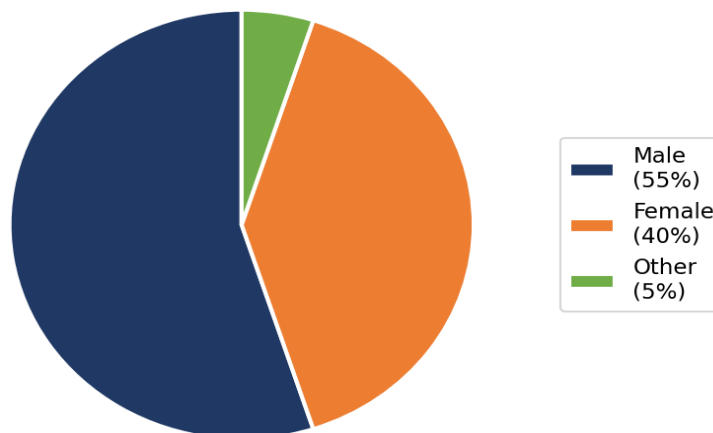
### 5.1 Demographic Information

It's important to understand who the respondents are in terms of their socio-economic and demographic profile before we look at the financial literacy and consumer finance behaviour findings. The next few segments present and discuss essential demographic profiles of the 400 RPCC dwellers.

#### 5.1.1 Gender Distribution

The chart given below depicts the gender composition of the survey. More than half of the respondents, 55%, are male, which reflects the reality of the larger socio culture of Rangpur City Corporation where men are the main financial decision-makers for households. Women have a 40% participation, which is nevertheless meaningful. It provides data that is useful for understanding the financial literacy and behaviour of women. Womens' low average financial literacy is confirmed by national survey data. The study gets enriched further with an additional 5% of respondents who identify as other genders.

**Figure 5.1 — Gender Distribution of Survey Participants (n=400)**



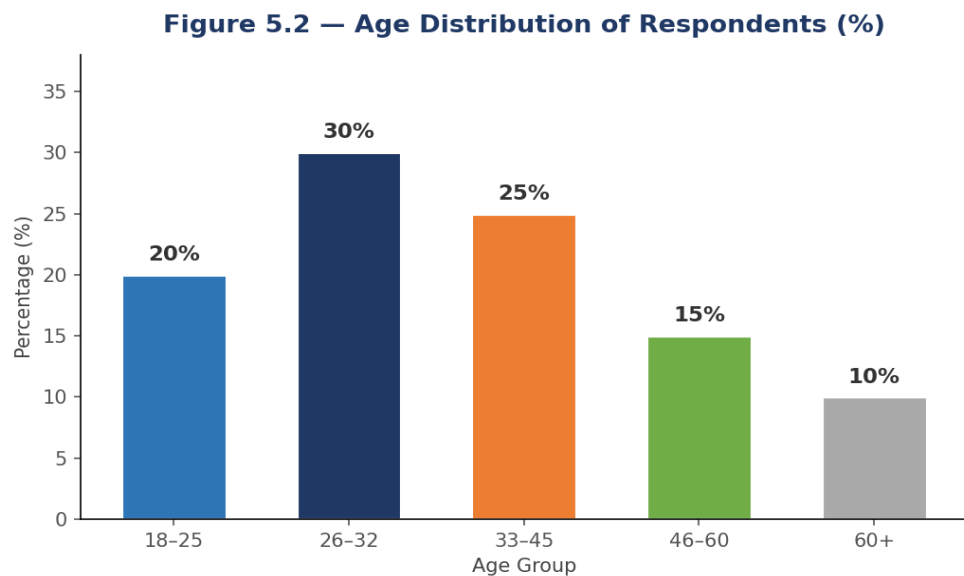
**Data Table 5.1: Gender Distribution (n=400)**

| Category | Respondents (n) | Percentage (%) |
|----------|-----------------|----------------|
| Male     | 220             | 55%            |
| Female   | 160             | 40%            |
| Other    | 20              | 5%             |
| Total    | 400             | 100%           |

The proportion of male respondents is higher in number because, in RPCC's social environment, men are usually the primary financial decision-makers.

### 5.1.2 Age Distribution

The age distribution shows that 26-32 age group is the most dominating group (30%) than 33-45 age group (25%). Together these two age groups have consisted with 55% of total respondents. It indicates that the study primarily captures the working-age adult’s perspectives and they are most actively engaged in financial decision-making activities like investing, saving, and borrowing. The 18-25 age group provides valuable insights on the financial literacy among the younger adults of RPCC, and this age group is 20% of the total respondents. This age group has greatest long-term impact of early financial education.



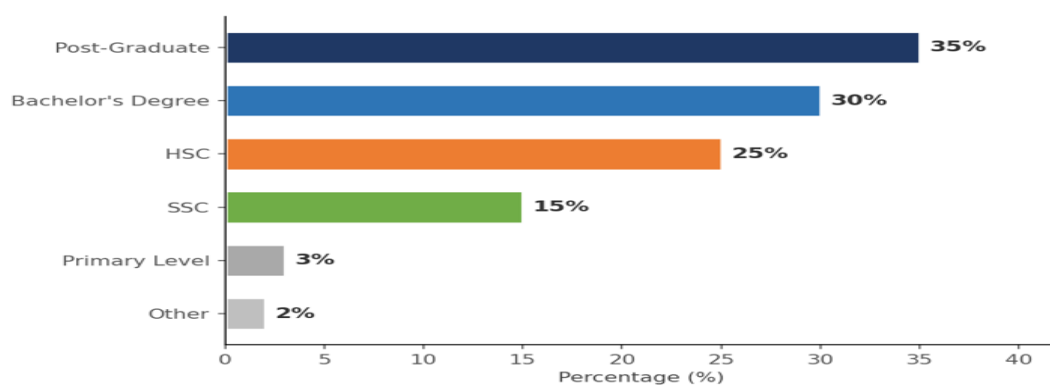
**Data Table 5.2: Age Distribution (n=400)**

| Age Group    | Respondents (n) | Percentage (%) |
|--------------|-----------------|----------------|
| 18–25        | 80              | 20%            |
| 26–32        | 120             | 30%            |
| 33–45        | 100             | 25%            |
| 46–60        | 60              | 15%            |
| 60+          | 40              | 10%            |
| <b>Total</b> | <b>400</b>      | <b>100%</b>    |

Most dominating age group of the survey is 26-32 and this age group makes financial decisions.

### 5.1.3 Educational Qualification

**Figure 5.3 Educational Qualification of Respondents (%)**



The educational levels of respondents are certainly high, with postgraduate degree holders comprising the single highest group (35%) followed by degree holders (30%) and Higher

Secondary Certificate holders (25%). The more educated profile of Rangpur City Corporation, which is more urban and cosmopolitan, is the reason why many people in Rangpur city have access to tertiary education. The educational qualification is likely to be a key predictor of financial literacy, and this particular distribution provides a relevant baseline for interpreting financial knowledge.

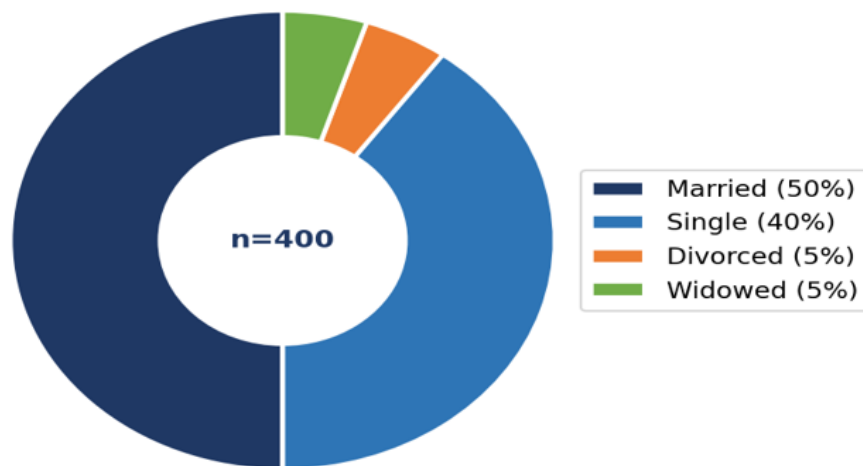
**Data Table 5.3: Educational Qualification of Respondents (%)**

| Educational Level      | Respondents (n) | Percentage (%) |
|------------------------|-----------------|----------------|
| Primary Level          | 12              | 3%             |
| Secondary — SSC        | 60              | 15%            |
| Higher Secondary — HSC | 100             | 25%            |
| Bachelor's Degree      | 120             | 30%            |
| Post-Graduate          | 140             | 35%            |
| Other                  | 8               | 2%             |

Postgraduate and bachelor's degree holders together constitute 65% of the sample.

#### 5.1.4 Marital Status

**Figure 5.4 Marital Status Distribution (%)**



In a recent survey, approximately 50% of respondents stated that they were married while 40% of respondents stated that they were single. A majority of the respondents were married. This is important as often in Bangladesh married households, financial decision-making is joint or at the family level. Thus adding complexity to individual financial behaviour. Of the respondents, 40% of single respondents manage their own finances. The significance of financial literacy is crucial given this fact. Some households also face financial disruptions due to divorce (5%) and widowhood (5%), which is another form of financial vulnerability.

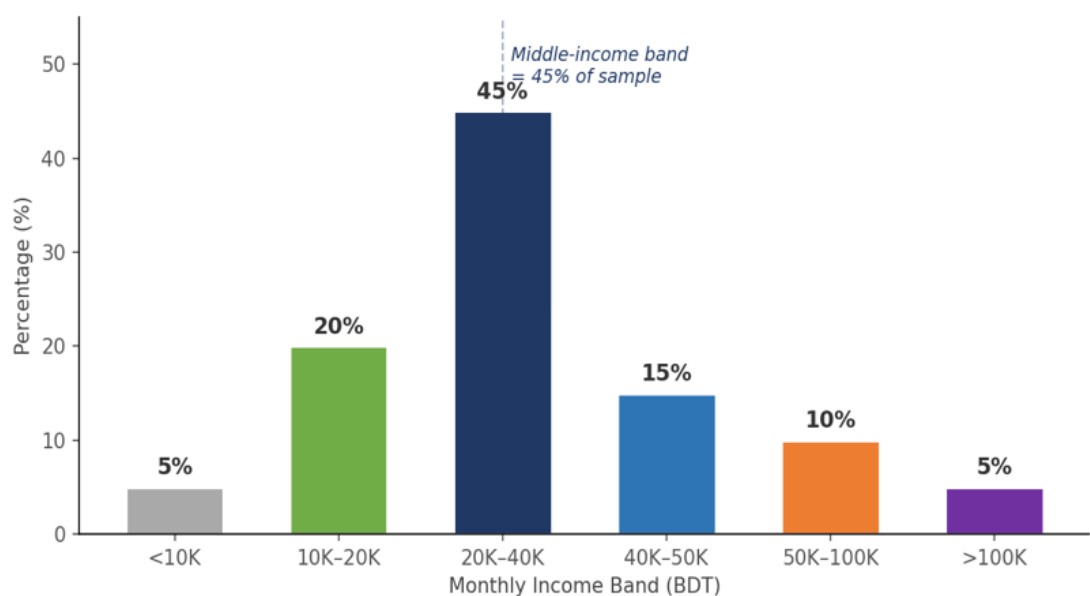
**Data Table 5.4: Marital Status Distribution of Respondents**

| Marital Status | Number of Respondents | Percentage (%) |
|----------------|-----------------------|----------------|
|----------------|-----------------------|----------------|

|              |            |             |
|--------------|------------|-------------|
| Single       | 160        | 40%         |
| Married      | 200        | 50%         |
| Divorced     | 20         | 5%          |
| Widowed      | 20         | 5%          |
| <b>Total</b> | <b>400</b> | <b>100%</b> |

### 5.1.5 Monthly Income Distribution

**Figure 5.5 Monthly Income Distribution of Respondents (BDT, %)**



The respondents' income distribution shows that almost half of the respondents (45%) are earning between BDT 20,000 and BDT 40,000 monthly. This is a middle-income band in line

with the economic characterization of Rangpur City Corporation as a secondary urban centre. Only five percent of the respondents earn a monthly income of less than BDT 10,000, whereas another five percent earns over BDT 100,000. The income distribution directly shows the financial capacity of the respondents. Structural barriers on savings and investment behavior are particularly marked for individuals in lower income segments with financial literacy. It is an important behavioral findings for interpretation.

**Data Table 5.5: Monthly Income Distribution of Respondents. Middle-income earners (BDT 20,000–40,000) is 45% of the total sample**

| Monthly Income Band (BDT) | Respondents | Percentage  | Cumulative % |
|---------------------------|-------------|-------------|--------------|
| Less than 10,000          | 20          | 5%          | 5%           |
| 10,000 – 20,000           | 80          | 20%         | 25%          |
| 20,000 – 40,000           | 180         | 45%         | 70%          |
| 40,000 – 50,000           | 60          | 15%         | 85%          |
| 50,000 – 100,000          | 40          | 10%         | 95%          |
| More than 100,000         | 20          | 5%          | 100%         |
| <b>Total</b>              | <b>400</b>  | <b>100%</b> | <b>—</b>     |

#### Key Demographic Statistics:

|     |     |     |     |
|-----|-----|-----|-----|
| 55% | 30% | 65% | 45% |
|-----|-----|-----|-----|

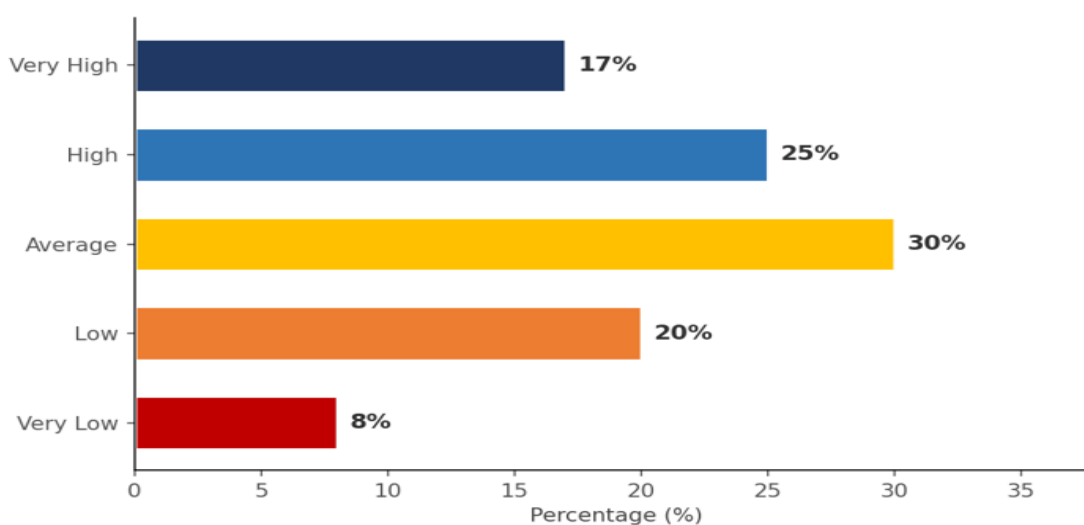
|                         |                                   |                          |                               |
|-------------------------|-----------------------------------|--------------------------|-------------------------------|
| <b>Male Respondents</b> | <b>Peak Age Group<br/>(26-32)</b> | <b>Tertiary Educated</b> | <b>Middle Income<br/>Band</b> |
|-------------------------|-----------------------------------|--------------------------|-------------------------------|

## 5.2 Financial Literacy Levelss

This section shows findings related to the financial literacy of the respondents of RPCC. It covers respondents' own assessment of their confidence in financial concepts, exposure to formal financial education, preferred method to handle finances, budgeting practices and self-efficacy in making financial decisions.

### 5.2.1 Confidence in Understanding Financial Concepts

**Figure 5.6: Confidence in Understanding Financial Concepts**



Respondents were asked to rate their confidence in their understanding of the interest rate, inflation, risk-return & risk diversification on a 5-point scale [Very Low (1) to Very High (5)]. The findings indicate a somewhat mixed situation as 42% of respondents reported high or very high conceptual confidence, while a significant 28% stated low or very low

understanding. The largest single group (30%) of rating their understanding comes from average.

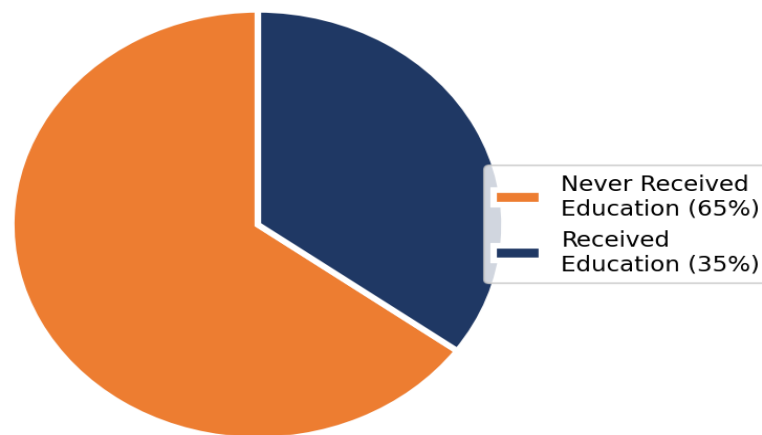
**Data Table 5.6: Confidence in Understanding Financial Concepts**

| Confidence Level | Respondents (n) | Percentage (%) |
|------------------|-----------------|----------------|
| Very Low         | 32              | 8%             |
| Low              | 80              | 20%            |
| Average          | 120             | 30%            |
| High             | 100             | 25%            |
| Very High        | 68              | 17%            |
| Total            | 400             | 100%           |

Primary Survey Data 42% of respondents are highly confident about financial concepts and 28% least confident.

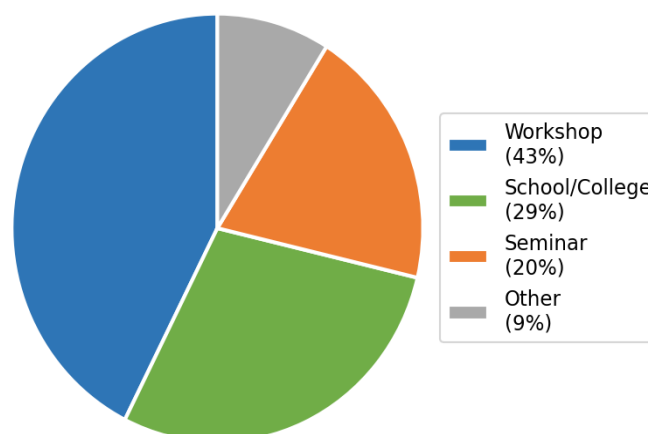
## 5.2.2 Formal Financial Education or Training

**Figure 5.7 — Formal Financial Education Access (n=400)**



According to a significant finding, 65% of respondents in the RPCC have never received financial education and training. Of the 35% of respondents who have been trained, the most popular source was workshops, (60 respondents). Other sources included school based (40), seminars (28), other (12). Workshops with events often dominate sustainable school-based financial education. It suggests that the residents of RPCC have heavily depended on irregularities rather than continuing financial education. The financial literacy level of the respondents is limited in this pattern.

**Figure 5.8 — Sources of Financial Education (n=140 educated respondents)**

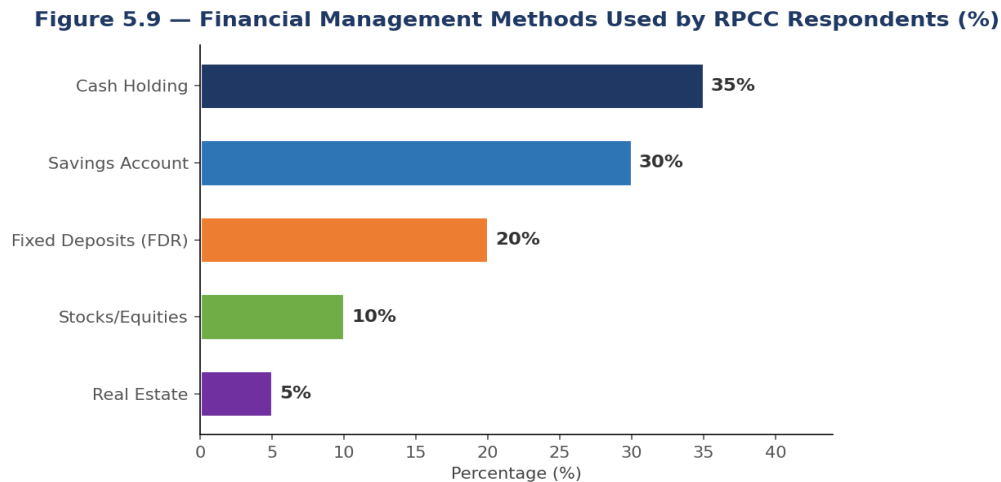


**Data Table 5.7 Sources of Formal Financial Education among the Respondents of RPCC**

| Source of Financial Education | Respondents (n) | % of Educated Group (n=140) |
|-------------------------------|-----------------|-----------------------------|
| School / College              | 40              | 28.6%                       |
| Workshop                      | 60              | 42.9%                       |
| Seminar                       | 28              | 20.0%                       |
| Other Sources                 | 12              | 8.6%                        |
| Total Educated                | 140             | 100%                        |
| Never Received Education      | 260             | —                           |

According to the results of survey, 65% participants have never received financial education or training. There is a clear lack between financial awareness and access to formal financial education. It will be helpful for future policy recommendations for this area.

### 5.2.3 Financial Management Methods



When respondents were asked that how they usually handle their money, they could choose more than one answer from the options. The findings reveal that 35% manage their money in cash, 30% have savings account, and 20% have fixed deposit. It is a clear preference for their conventional and low-risk tools. Only, 10% people invest in stocks and 5% in real estate. The total 85% people depend on safe financial activities and liquid instruments. It reflects the culture of risk aversion and consistent limited investment literacy, and income constrains among the people.

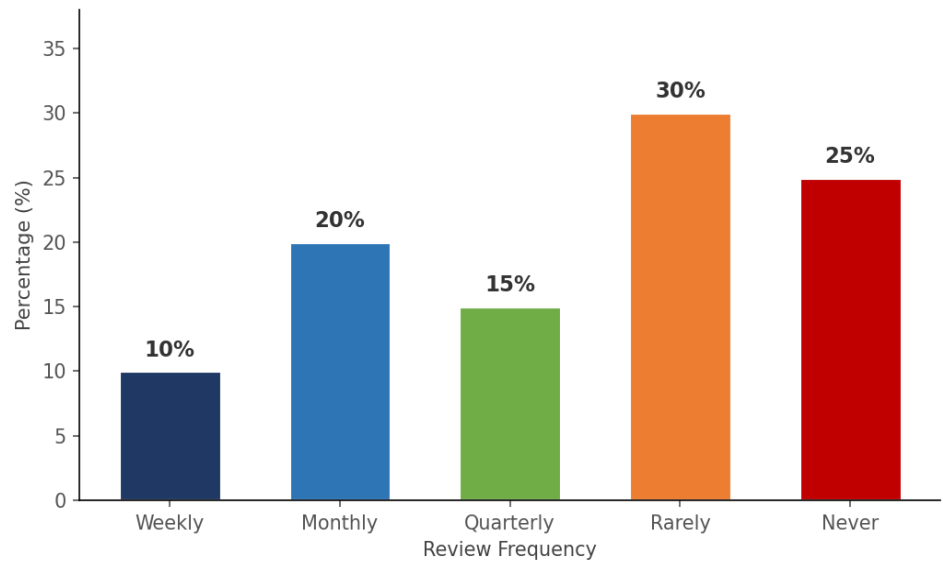
**Data Table 5.8: Financial Management Methods Used by RPCC Respondents (%)**

| Financial Management Method | Respondents (n)* | Percentage (%) |
|-----------------------------|------------------|----------------|
| Cash Holding                | 140              | 35%            |

|                      |     |     |
|----------------------|-----|-----|
| Savings Account      | 120 | 30% |
| Fixed Deposits (FDR) | 80  | 20% |
| Investment in Stocks | 40  | 10% |
| Real Estate          | 20  | 5%  |

### 5.2.4 Monthly Budgeting Practices

**Figure 5.10 — Budget Review Frequency (n=240 budget holders, %)**



According to findings, 60% participants have reported that they maintain a monthly budget to control their expenses. However, 55% respondents do not maintain a monthly budget or never re-evaluate it. Only, 10% respondents review their budget weekly, 20% monthly, and 15% quarterly. This type of pattern indicates that budgeting is a passive exercise for

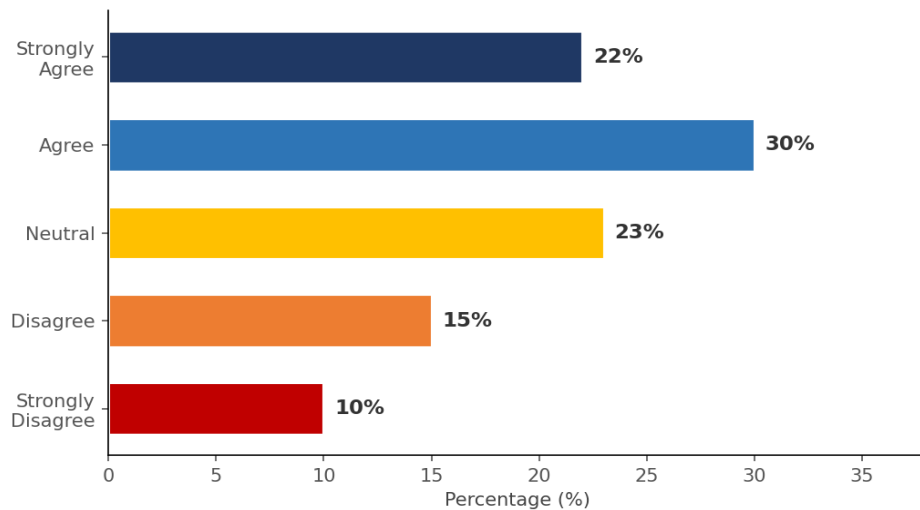
respondents rather than as active financial management tool. It has limited their financial behavior.

**Data Table 5.9: Budget review frequency table among those respondents who maintain a monthly budget. Total sample size is 240 which is 60% of total respondents 400**

| Budget Review Frequency            | Budget Holders (of 240) | Percentage (%) |
|------------------------------------|-------------------------|----------------|
| Weekly                             | 24                      | 10%            |
| Monthly                            | 48                      | 20%            |
| Quarterly                          | 36                      | 15%            |
| Rarely                             | 72                      | 30%            |
| Never                              | 60                      | 25%            |
| Total (Budget Holders), 60% of 400 | 240                     | 100%           |

## 5.2.5 Confidence in Financial Decision-Making and Savings Preference

**Figure 5.11 — Savings Preference Responses (Likert Scale, n=400)**



According to the results, 50% of respondents have agreed or strongly agreed, 20% have expressed lack of confidence. A five-point Likert scale was used to assess the confidence level of people. Based on the savings nature, 52% have preferred savings over impulsive spending (88 strongly agreed, 120 agreed, 92 neutral, 60 disagreed, 40 strongly disagreed). The majority savings-orientation is a positive foundational attitude. The substantial neutral and negative segments indicate that attitudinal preparedness for financial behavior has not yet achieved for the people in RPCC.

**Data Table 5.10: Savings Preference Responses (Likert Scale, n = 400)**

| Response          | Respondents (n) | Percentage (%) |
|-------------------|-----------------|----------------|
| Strongly Agree    | 88              | 22%            |
| Agree             | 120             | 30%            |
| Neutral           | 92              | 23%            |
| Disagree          | 60              | 15%            |
| Strongly Disagree | 40              | 10%            |
| <b>Total</b>      | <b>400</b>      | <b>100%</b>    |

#### Financial Literacy Headline Indicators — RPCC Survey

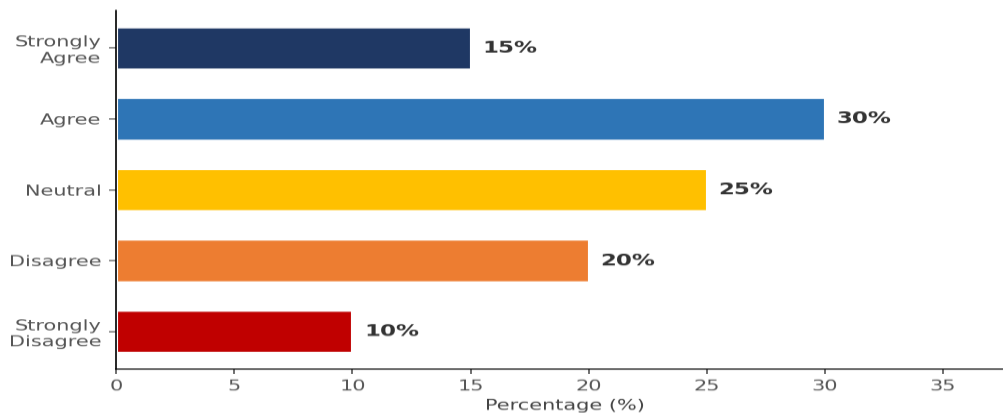
|                                                      |                                                |                                            |                                              |
|------------------------------------------------------|------------------------------------------------|--------------------------------------------|----------------------------------------------|
| <b>42%</b><br>High/Very High<br>Financial Confidence | <b>65%</b><br>No Formal Financial<br>Education | <b>60%</b><br>Maintain a Monthly<br>Budget | <b>52%</b><br>Prefer Saving Over<br>Spending |
|------------------------------------------------------|------------------------------------------------|--------------------------------------------|----------------------------------------------|

### 5.3 Consumers' Financial Behaviour

This part of the report looks at actual responses of RPCC respondents including spending, saving, investing, debt and financial risk behaviour. The people from RPCC are trying to find out how financially literate are they according to these behavioral indicators and whether these financial behaviour lead to better financial outcomes.

### 5.3.1 Comfort with Calculated Financial Risks

**Figure 5.12 — Comfort with Calculated Financial Risks (Likert, n=400)**



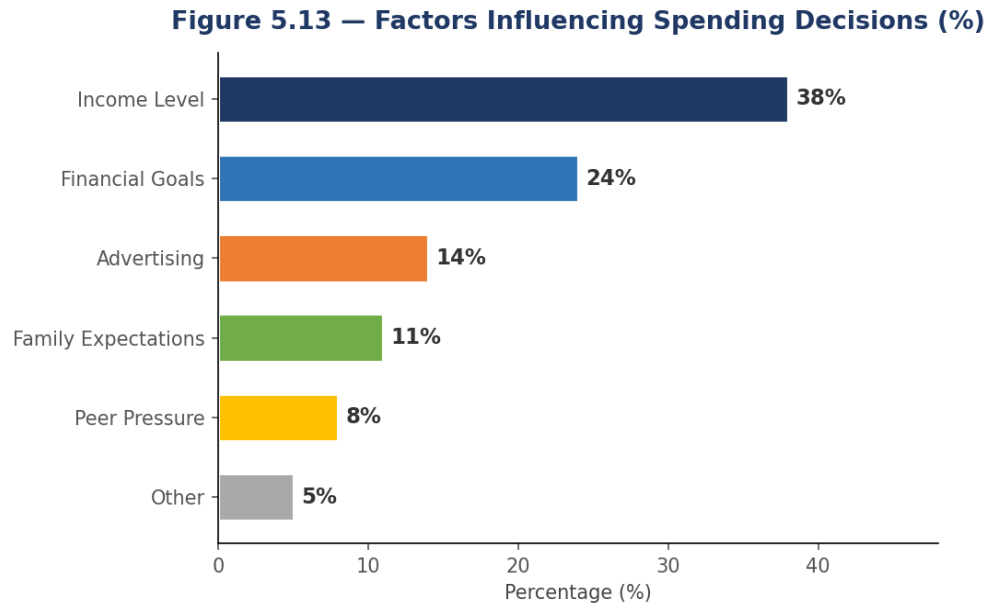
Forty-five percent (45%) of respondents said they are comfortable (30% agree, 15% strongly agree) taking financial risks with the right calculations while thirty per cent (30%) said that they are not (20% disagree, 10% strongly disagree). The neutral was 25% remained. In the context of RPCC, a 45% comfort level with taking calculated risks was achieved, as financial risk aversion has always been a problem. People who understand finance are much more likely to be comfortable with risk assessed through calculation, as demonstrated statistically in Section 5.5.

**Figure 5.11: Comfort with Taking Calculated Financial Risks (Likert Scale, n = 400).**

| Response          | Respondents | Percentage | Cumulative % |
|-------------------|-------------|------------|--------------|
| Strongly Disagree | 40          | 10%        | 10%          |
| Disagree          | 80          | 20%        | 30%          |
| Neutral           | 100         | 25%        | 55%          |
| Agree             | 120         | 30%        | 85%          |
| Strongly Agree    | 60          | 15%        | 100%         |

|              |            |             |          |
|--------------|------------|-------------|----------|
| <b>Total</b> | <b>400</b> | <b>100%</b> | <b>—</b> |
|--------------|------------|-------------|----------|

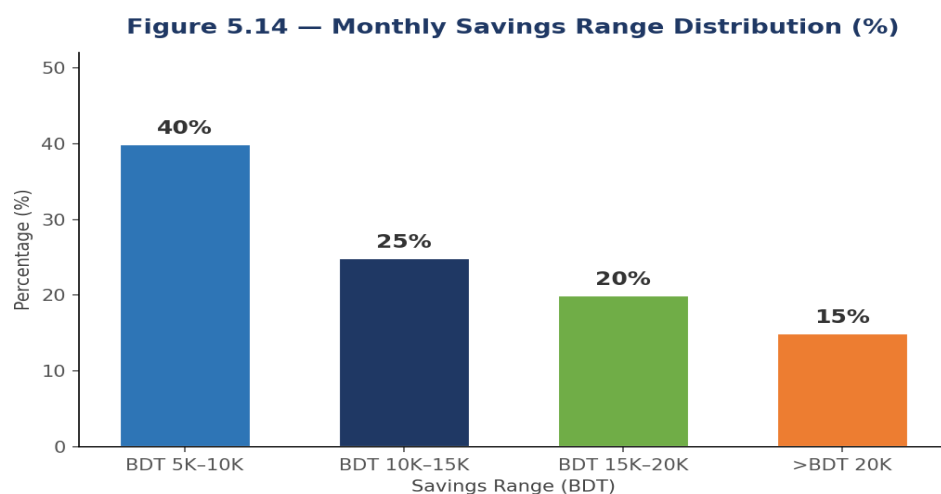
### 5.3.2 Spending Habits and Influencing Factors



Half of the respondents identified as moderate spenders who balance spending with saving. A mere 20 percent considered themselves frugal, while 30 percent were extravagant spenders. This distribution usually aligns with the respondents of this survey who are in middle-income profile. It seems reasonable that moderate spending would be a natural equilibrium when basic needs are covered, with a modest surplus. Most important factors are 38% of people are followed by income level, 24% for financial goals, and 14% for advertising. This high influence of advertising (14%) indicates exposure to commercial pressures. It can harm the financial decision-making process of participants.

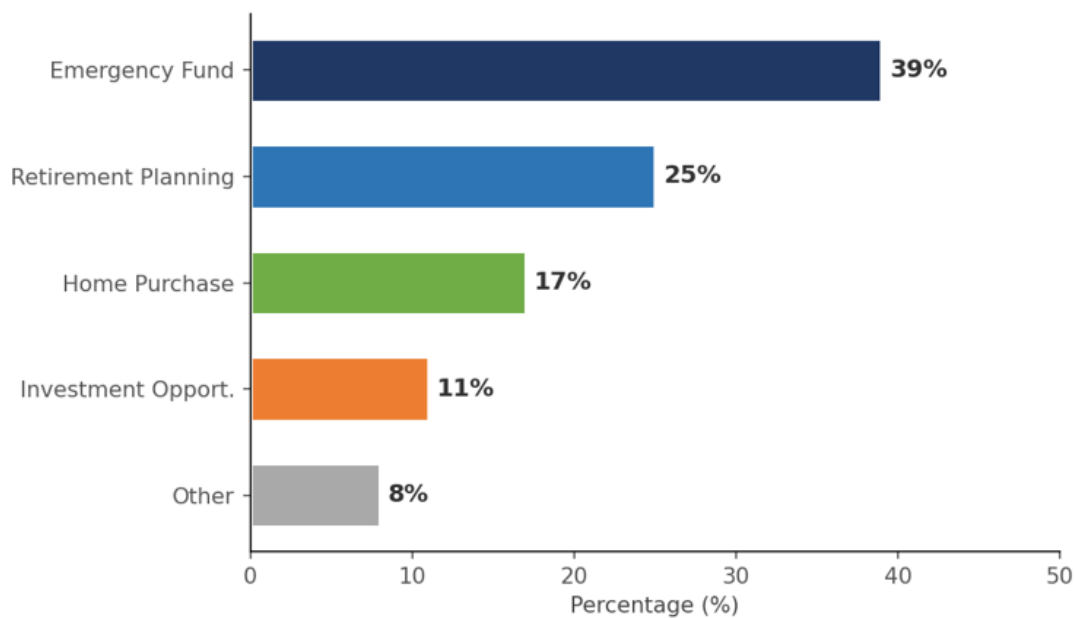
| Data Table 5.12: Factors Influencing Spending Decisions — RPCC Respondents (%) |             |     |
|--------------------------------------------------------------------------------|-------------|-----|
| Income Level                                                                   | <div></div> | 38% |
| Financial Goals                                                                | <div></div> | 24% |
| Advertising                                                                    | <div></div> | 14% |
| Family Expectations                                                            | <div></div> | 11% |
| Peer Pressure                                                                  | <div></div> | 8%  |
| Other                                                                          | <div></div> | 5%  |

### 5.3.3 Savings Patterns and Motivations



About 40% of respondents have monthly savings of BDT 5,000-10,000. 25% respondents save BDT 10,000-15,000 monthly. 20% respondents save BDT 15,000-20,000 and 15% respondents save more than BDT 20,000 monthly. Higher income respondents have higher savings rates. Lower income respondents use 39% as emergency fund. More than 25% of respondents have invested money for retirement, 20% respondents save money for home purchasing, and only 11% say that they save in order to invest. This shows that saving and investing are still seen as different. Saving is often considered the first step toward investing and building wealth.

**Figure 5.16 Primary Savings Motivations (%)**

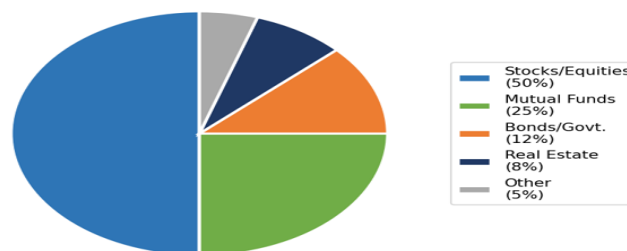


**Figure 5.13: Monthly Savings Amounts and Primary Savings Motivations of RPCC Respondents.**

| Monthly Savings Range (BDT) | Respondents (%) | Primary Savings Motivation     |
|-----------------------------|-----------------|--------------------------------|
| BDT 5,000 – 10,000          | 40%             | Emergency Fund (39%)           |
| BDT 10,000 – 15,000         | 25%             | Retirement Planning (25%)      |
| BDT 15,000 – 20,000         | 20%             | Home Purchase (17%)            |
| More than BDT 20,000        | 15%             | Investment Opportunities (11%) |

### 5.3.4 Investment Behaviour

**Figure 5.17 Investment Type Distribution**



Only 40% respondents invest currently in any financial instruments. Nevertheless, half (50%) of the respondents feel that investing is a good way to grow wealth. The study's core empirical finding is the attitude-behavior gap. Out of the 160 investors, the most common

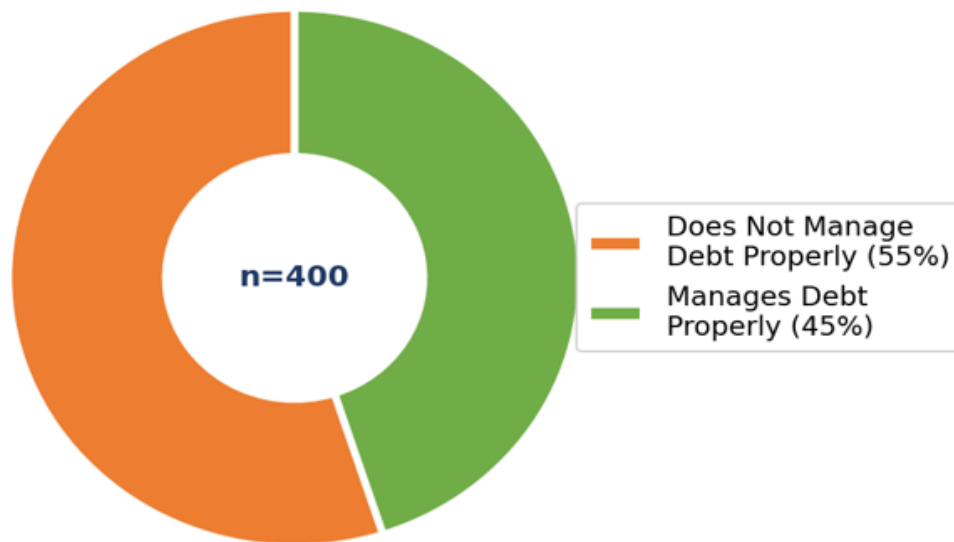
type of investment is equities/stocks with 50% opting for it followed by mutual funds at 25%, bonds at 12% and real estate at 8%. The concentration in equity investment perhaps reflects the relative easy access to stock markets of urban educated residents and possibly the greater risk tolerance and financial literacy of the investors. According to money managers and other financial professionals, 22% of investors cite risk tolerance as their primary investment decision factor. Similarly, 15% of investors mention they receive advice from a financial professional.

**Figure 5.14: Investment Type Distribution among RPCC Investors.**

| Investment Type          | Investors (n = 160) | % among Investors | Indicative Annual Return |
|--------------------------|---------------------|-------------------|--------------------------|
| Stocks / Equities        | 80                  | 50%               | Variable (market-linked) |
| Mutual Funds             | 40                  | 25%               | 8–15% (historically)     |
| Bonds / Govt. Securities | 19                  | 12%               | 7–9% fixed               |
| Real Estate              | 13                  | 8%                | Long-term capital gain   |
| Other                    | 8                   | 5%                | Variable                 |
| <b>Total Investors</b>   | 160                 | 100%              | —                        |

### 5.3.5 Debt Management

**Figure 5.18 Debt Management Self-Assessment**



More than half, or 55%, of respondents fail to manage their debt properly while only 45% do manage their debt properly. This result highlights a major economic behaviour deficiency in RPCC. According to the survey, poor debt management may be due to various reasons; an inadequate understanding of the financial lender regarding loan terms and interest costs, reliance on informal and costly sources of credit, and income volatility and inadequate budgeting. There is significant difference in the debt management behaviour of those who have undergone financial education and those who did not. This can be seen in the chi-square analysis as performed in Section 5.5. It is clear that financial education is the main variable in this regard.

**Figure 5.15: Debt Management Self-Assessment — RPCC Respondents**

| Debt Management Category    | Respondents (n) | Percentage (%) |
|-----------------------------|-----------------|----------------|
| Properly Manage Debt        | 180             | 45%            |
| Do Not Properly Manage Debt | 220             | 55%            |
| <b>Total</b>                | <b>400</b>      | <b>100%</b>    |

### 5.3.6 Recognition of Financial Literacy's Importance

Around 70% respondents have a strong or simply agreement that financial literacy affects 40% strongly agree and 30% agree. Just a tenth are against it. This suggests that financial literacy is important because 65% respondents have never undertaken formal financial training. This is referred to as the ‘awareness–access paradox’ of financial literacy in Rangpur City Corporation by the study. The research findings give rise to a policy imperative to resolve this paradox.

## 5.4 Findings of Key Informant Interviews (KII)

Five Key Informant Interviews were held with specialists, comprising a Bank Manager, an RPCC Administrative Officer, a Financial Institution Officer, a Public Administration academic expert, and an NGO Representative involved in financial inclusion. Analysis of the KII transcripts revealed four fundamental thematic categories.

### 5.4.1 Barriers to Financial Literacy in RPCC

- **Language and Literacy Barriers:** The difficulty to understand the material is due to dialectical differences and lack of familiarity of standard Bengali or English financial

terminology. The KII respondents emphasized the demand for materials in local vernacular.

- **Institutional Mistrust:** Many people mentioned losing money in the past due to formal financial institutions. It was recommended to build trust through communication to the community.
- **Low Awareness and Cultural Norms:** A significant number of residents do not know which programs exist to help. Cultural norms that discourage the open discussion of financial issues lead to less participation in financial literacy programs.
- **Inadequate Financial Infrastructure:** Peripheral wards of RPCC have only few locations with banking facilities which makes it difficult to practice the learning of financial literacy. NGO experts feel that many people go back to their informal ways, despite literacy training, because no formal financial service is available nearby.

#### 5.4.2 Expert Recommendations for Financial Literacy Promotion

- Financial literacy should be included in the formal school curriculum right from the primary level as a mandatory subject for a sustained longitudinal effort.
- Arrange community awareness campaigns in local languages that utilize relatable real-life examples from RPCC's economic agenda including agricultural trade, SME management, remittances economy.
- To leverage existing levels of trust, it is helpful to engage a network of intermediary actors i.e. community leaders, religious leaders, and local influencers to champion financial literacy efforts.
- Make use of mobile phone app, SMS-based education, WhatsApp and YouTube to target the younger tech-savvy segment of the RPCC population.
- The objective of this project is to set up a multi-stakeholder platform to coordinate and align the financial literacy programs of the Bangladesh Bank, NGOs, local government and the financial institutions.
- Encourage businesses to invest in certified financial knowledge programs by offering them tax incentives.

## 5.5 Statistical Data Analysis and Hypothesis Testing

This section will discuss the statistical analysis to test the four hypotheses. For regression, chi-square, and correlation tests, we used SPSS (Statistical Package for the Social Sciences) as well as Microsoft Excel. Each analytical output accompanied by an interpretation of it.

### 5.5.1 Regression Analysis: Financial Literacy and Savings Behavior (H1a)

A simple linear regression test was performed to assess the relationship between formal financial education or training (the independent variable) and the average monthly savings (the dependent variable). The financial literacy of a person does not affect their savings behavior.

*Table 5.16: Regression Analysis — Formal Financial Education and Monthly Savings (n = 400). DV: Average monthly savings (BDT). IV: Formal financial education (0 = No, 1 = Yes).  $R = 0.781$ ,  $R^2 = 0.611$ ,  $F(1, 398) = 624.21$ ,  $p < .001$ .*

| Statistical Measure                    | Value                 | Interpretation                                                                                                                         |
|----------------------------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Correlation Coefficient (R)            | 0.781                 | Strong positive association                                                                                                            |
| Coefficient of Determination ( $R^2$ ) | 0.611                 | 61.1% of savings variance is associated with financial education                                                                       |
| Regression Coefficient ( $\beta$ )     | BDT 5.811             | Respondents with financial education are associated with BDT 5.811 higher monthly savings than those without education (coded 1 vs. 0) |
| Regression Intercept ( $\alpha$ )      | BDT 6,287             | Predicted mean savings for respondents without financial education                                                                     |
| Standard Error of $\beta$              | 232.587               | Precise coefficient estimate                                                                                                           |
| t-statistic                            | $t(398) = 24.984$     | Highly significant individual predictor                                                                                                |
| F-statistic                            | $F(1, 398) = 624.207$ | Overall model is statistically significant                                                                                             |

|          |                |                                                                            |
|----------|----------------|----------------------------------------------------------------------------|
| p-value  | $p < .001$     | Statistically significant at $\alpha = .05$                                |
| Decision | H0(a) REJECTED | H1(a) Supported: financial education is positively associated with savings |

The results of regression reveal a very strong and significant positive relationship between formal financial education and monthly savings behaviour ( $R = 0.781$ ,  $R^2 = 0.611$ ). The financial education status of RPCC respondents alone explains almost 61% of the variance in monthly savings. This is remarkable and shows how effective financial literacy programs can be. The coefficient at 5.811 validates that with every increase in financial education, monthly savings tends to rise significantly. Consequently, The null hypothesis H0(a) has been rejected and alternative hypothesis H1(a) has been accepted: financial literacy has significantly a positive impact on the consumers' savings behaviour of Rangpur City Corporation.

### 5.5.2 Chi-Square Test: Financial Concept Understanding and Risk-Taking (H1b)

A Pearson chi-square test was done to see if respondents' self-assessed understanding of financial concepts was statistically related to respondents' comfort level when taking financial risks. There is no relationship between these two variables if H0(b).

*Table 5.17: Chi-Square Test — Financial Concept Understanding and Calculated Risk-Taking ( $n = 400$ ).  $\chi^2(16) = 598.25$ ,  $p < .001$ , Cramer's  $V = 0.611$  (Large effect).*

| Test Statistic               | Value              | df | p-value    | Effect Size (Cramer's V) |
|------------------------------|--------------------|----|------------|--------------------------|
| Pearson Chi-Square           | $\chi^2 = 598.250$ | 16 | $p < .001$ | $V = 0.611$ (Large)      |
| Likelihood Ratio ( $G^2$ )   | $G^2 = 543.740$    | 16 | $p < .001$ | —                        |
| Linear-by-Linear Association | 297.867            | 1  | $p < .001$ | —                        |

|                  |                |   |          |                 |
|------------------|----------------|---|----------|-----------------|
| N of Valid Cases | 400            | — | —        | —               |
| Decision         | H0(b) REJECTED | — | p < .001 | H1(a) Supported |

The chi-square exhibited a value of 598.250 with  $p = 0.000$  ( $df = 16$ ) and  $p < 0.001$ , which confirms an association that is highly statistically significant between understanding financial concepts and taking financial risks. Those respondents marking their understanding of financial concepts as high or very high are significantly more likely to report comfort with taking financial risks, compared to those with lower financial understanding. The finding supports the theoretical argument that financial literacy allows individuals to make a more accurate evaluation of risk-return trade-off while overcoming a potentially excessive aversion to risk. The null hypothesis H0(b) is rejected and H1(a) is accepted: Understanding of financial concepts is significantly associated with willingness to take calculated financial risks.

### 5.5.3 Regression Analysis: Educational Qualification and Income Level

A supplementary regression analysis was performed to examine the association between respondents' educational qualification and their monthly income level. This presents interesting contextual evidence on the education–income–financial literacy nexus in RPCC.

*Table 5.18: Supplementary Regression — Educational Qualification and Monthly Income ( $n = 400$ ).  $R = 0.692$ ,  $R^2 = 0.478$ ,  $F(1,398) = 364.74$ ,  $p < .001$ .*

| Statistical Measure                    | Value | Interpretation                                                         |
|----------------------------------------|-------|------------------------------------------------------------------------|
| Correlation Coefficient (R)            | 0.692 | Moderately strong positive association                                 |
| Coefficient of Determination ( $R^2$ ) | 0.478 | 47.8% of income category variance is associated with educational level |

|                                    |                       |                                                                                                   |
|------------------------------------|-----------------------|---------------------------------------------------------------------------------------------------|
| Regression Coefficient ( $\beta$ ) | 0.715                 | Each unit increase in education level is associated with a 0.715-unit increase in income category |
| Standard Error of $\beta$          | 0.0374                | Precise coefficient estimate                                                                      |
| t-statistic                        | $t(398) = 19.098$     | Highly significant individual predictor                                                           |
| F-statistic                        | $F(1, 398) = 364.737$ | Overall model is statistically significant                                                        |
| p-value                            | $p < .001$            | Statistically significant at $\alpha = .05$                                                       |

The strong positive correlation between educational qualification and income ( $R = 0.692$ ,  $R^2 = 0.478$ ) shows that higher education is a good predictor of the monthly income of RPCC. This creates a virtuous circle whereby better-educated residents earn more, have greater financial capacity and at the same time, are more financially literate. In contrast, residents with lower education and lower income have negative effects on finance knowledge and financial behavior. This finding is significant information for knowing the demographic characteristics of financial literacy deficit in Rangpur City Corporation.

#### 5.5.4 Chi-Square Test: Educational Qualification and Financial Concept Understanding (H1c)

To test hypothesis H1(c), a chi-square test was performed for the association between educational qualification and understanding of statements.

*Figure 5.19: Chi-Square Test — Educational Qualification and Financial Concept Understanding*

| Test Statistic     | Value              | df | p-value    | Effect Size (Cramer's V) |
|--------------------|--------------------|----|------------|--------------------------|
| Pearson Chi-Square | $\chi^2 = 401.791$ | 16 | $p < .001$ | $V = 0.517$ (Large)      |

|                              |                   |    |            |                    |
|------------------------------|-------------------|----|------------|--------------------|
| Likelihood Ratio ( $G^2$ )   | $G^2 = 402.514$   | 16 | $p < .001$ | —                  |
| Linear-by-Linear Association | 199.343           | 1  | $p < .001$ | —                  |
| N of Valid Cases             | 400               | —  | —          | —                  |
| Decision                     | $H_{03}$ REJECTED | —  | $p < .001$ | $H_{13}$ Supported |

The chi-square test confirms that education qualification significantly associated with the level of financial concept understanding,  $\chi^2(16) = 401.79$ ,  $p < .001$ , Cramer's  $V = 0.517$ . Those with postgraduate and bachelor's qualifications have a considerable understanding of financial concepts compared to those with lower qualifications. Null hypothesis was rejected; Alternative hypothesis was supported.

### 5.5.5 Correlation Analysis: Formal Financial Education and Investment Activity

To study the relationship between having received formal financial education and currently investing in financial instruments a Pearson correlation coefficient was calculated.

*Table 5.20: Pearson / Point-Biserial Correlation — Formal Financial Education and Investment Activity ( $n = 400$ ). Correlation significant at the 0.01 level (2-tailed).*

| Variable Pair                                    | Pearson $r$ | $r^2$ (Shared Variance) | Significance (2-tailed) | $n$ |
|--------------------------------------------------|-------------|-------------------------|-------------------------|-----|
| Formal Financial Education ↔ Investment Activity | $r = 0.471$ | 22.2%                   | $p < .001$              | 400 |

A strong positive correlation exists between having received financial literacy training and investing, as evidenced by the Pearson correlation of  $r = 0.471$  ( $p = 0.000$ ),  $p < .001$ . Those who have undertaken any formal financial education are significantly more likely to invest actively. Based on the evidence reviewed, financial education can positively affect investor behaviour. Understanding the risk-return profiles of asset classes and the range of investment products available can build confidence in making self-directed investment decisions. According to findings, RPCC-based Financial Literacy programs must include investment education as a basic curricular component.

### 5.5.6 Chi-Square Test: Formal Financial Education and Debt Management (H1d)

A chi-square test and cross-tabulation analysis was used to investigate whether the relationship between being formally financially educated and managing debt. The hypothesis H1(d) is tested through this analysis.

Table 5.21: Chi-Square Test — Formal Financial Education and Debt Management ( $n = 400$ ).  $\chi^2(1) = 211.39$ ,  $p < .001$ , Cramer's  $V/\phi = 0.727$  (Large effect). Yates' continuity correction applied for  $2 \times 2$  table.

| Test Statistic                 | Value                 | df | p-value    | Effect Size                         |
|--------------------------------|-----------------------|----|------------|-------------------------------------|
| Pearson $\chi^2$ (uncorrected) | $\chi^2(1) = 211.389$ | 1  | $p < .001$ | Cramer's $V / \phi = 0.727$ (Large) |
| Continuity Correction (Yates)  | 208.336               | 1  | $p < .001$ | $\phi = 0.727$ (Large)              |
| Likelihood Ratio ( $G^2$ )     | $G^2(1) = 240.455$    | 1  | $p < .001$ | —                                   |
| N of Valid Cases               | 400                   | —  | —          | —                                   |
| Decision                       | $H_{04}$ REJECTED     | —  | $p < .001$ | $H_{14}$ Supported                  |

Data Table 5.22: Cross-Tabulation — Formal Financial Education and Debt Management Behavior

|                                   | Manages Debt Effectively (Yes) | Does Not Manage Debt (No) | Row Total |
|-----------------------------------|--------------------------------|---------------------------|-----------|
| Received Financial Education: YES | 132                            | 8                         | 140       |
| Received Financial Education: NO  | 48                             | 212                       | 260       |
| Column Total                      | 180                            | 220                       | 400       |

A chi-square test reveals that there is a highly significant association between formal financial education and effective debt management,  $\chi^2(1) = 211.39$ ,  $p < .001$ , Cramer's  $V = 0.727$ . Out of the 140 respondents with formal financial education, 132 or 94.3% manage their debt well. However, only 48 out of the 260 or 18.5% respondents without formal financial education manage their debt well.  $H_{04}$  has been rejected;  $H_{14}$  has been accepted.

### 5.5.7 Summary of Hypothesis Testing Results

Figure 5.23: Summary of Hypothesis Testing. All four alternative hypotheses are empirically supported.

| H            | Hypothesis                                                                                                         | Test Used           | Result           |
|--------------|--------------------------------------------------------------------------------------------------------------------|---------------------|------------------|
| <b>H1(a)</b> | Financial literacy has a significant positive impact on consumers' savings behavior in RPCC.                       | Regression Analysis | <b>Supported</b> |
| <b>H1(b)</b> | There is a significant association between understanding financial concepts and taking calculated financial risks. | Chi-Square Test     | <b>Supported</b> |

|              |                                                                                                                         |                 |                  |
|--------------|-------------------------------------------------------------------------------------------------------------------------|-----------------|------------------|
| <b>H1(c)</b> | There is a significant association between educational qualification and understanding of financial concepts.           | Chi-Square Test | <b>Supported</b> |
| <b>H1(d)</b> | There is a significant positive relationship between formal financial education/training and effective debt management. | Chi-Square Test | <b>Supported</b> |

## 5.6 Overall Findings

The quantitative survey findings, the statistical analyses and the qualitative Key Informant Interviews provide a well-rounded and internally-consistent picture of the financial literacy and consumer financial behaviour of Rangpur City Corporation. In summary, the following are the main empirical conclusions.

### 5.6.1 Demographic and Socioeconomic Profile

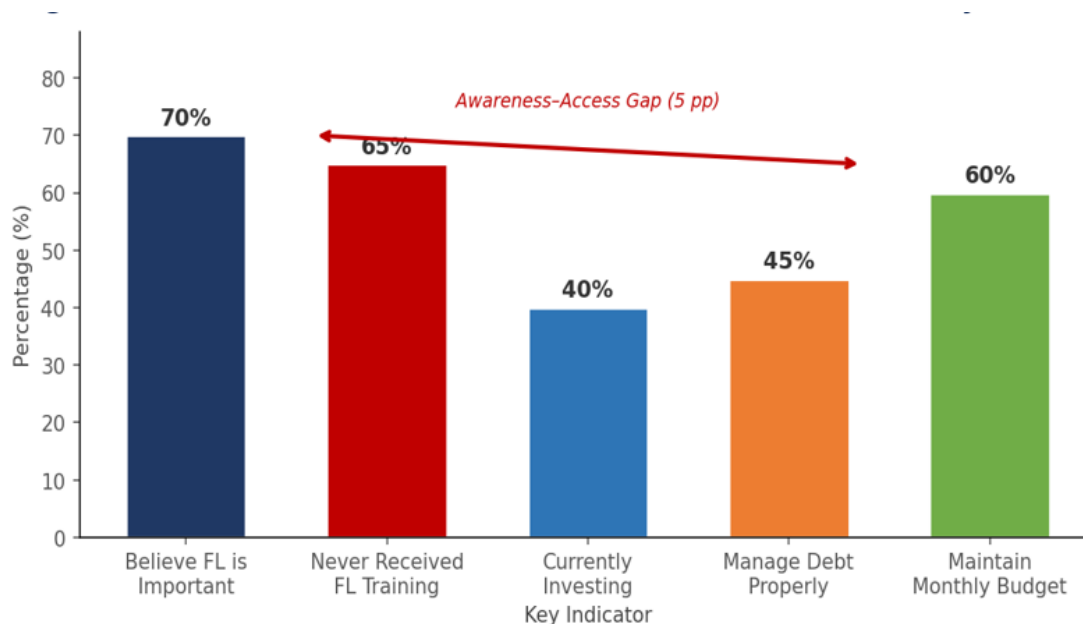
The RPCC survey sample is mostly male (55%), aged 26–45 years (55%), educated at tertiary level (65%) and middle income (BDT 20,000–40,000, 45%). Rangpur is a secondary urban and commercial city. The high representation of tertiary-educated respondents enhances financial literacy. However, high proportion of financially illiterate people suggests that general education without financial education is not sufficient in this situation.

### 5.6.2 The Awareness–Access Paradox

The main structural finding of this research is, ‘awareness-access paradox’. According to data, 70% respondents have considered financial literacy as very much important for financial behavior. But 65% respondents have not any financial education and training. This contradiction shows a key policy challenge. That is, based on the socioeconomic context into

consideration, the residents of RPCC value financial literacy but there is lacking to access quality financial education. This study's main recommendation is to bridge this gap.

**Figure 5.19 — The Awareness–Access Paradox of Financial Literacy in RPCC (%)**



**Table 5.24: The Awareness–Access Paradox of Financial Literacy in RPCC (n = 400).**

| Finding                                                        | Respondents (n) | Percentage (%)          |
|----------------------------------------------------------------|-----------------|-------------------------|
| Respondents who believe financial literacy is important        | 280             | 70%                     |
| Respondents who have NEVER received formal financial education | 260             | 65%                     |
| Awareness–Access Gap                                           | –               | 5 percentage points gap |

### 5.6.3 Financial Behavior Gaps

Three Gaps in Financial Behaviour Have Been Identified First, the investment gap: 50% believe that investing in wealth creation helps while merely 40% actively invest here. The second gap in debt management where 55% (n = 220) failed to manage debt, indicates the issue is common. 60% (n = 240) keep to a budget, yet 55% of them (n = 132) rarely or never review it, a significant proportion of budgeting behaviour is passive. According to statistical tests undertaken in Section 5.5, all these behavioural gaps are significantly related to financial literacy levels.

### 5.6.4 Statistical Confirmation of Financial Literacy's Impact

There is empirical support for all four hypotheses. There is a significant positive relationship between the ability of formal financial education to modulate monthly savings behaviour ( $R^2 = .611$ ;  $p < .001$ ); along with risk attitude ( $\chi^2(16) = 598.25$ ;  $p < .001$ ; Cramer's  $V = .611$ ), investment activity ( $r = .471$ ;  $p < .001$ ); and effective debt management ( $\chi^2(1) = 211.39$ ;  $p < .001$ ; Cramer's  $V = .727$ ). As a whole, the findings lend robust, multi-method empirical support to the conclusion that financial literacy is positively associated with consumer financial behaviour in Rangpur City Corporation.

*Data Table 5.25: Key Statistical Outcomes — Chapter 5 Summary (n = 400). All values computed for n = 400.*

| Key Statistical Outcome                                      | Value         | Effect Interpretation |
|--------------------------------------------------------------|---------------|-----------------------|
| $R^2$ — Savings variance associated with financial education | 0.611 (61.1%) | Substantial           |
| r — Financial education–investment correlation               | 0.471         | Moderate-to-strong    |
| Cramer's V — Financial literacy × risk comfort               | 0.611         | Large effect          |

|                                                    |                           |                    |
|----------------------------------------------------|---------------------------|--------------------|
| Cramer's V — Financial education × debt management | 0.727                     | Large effect       |
| All hypothesis p-values                            | p < .001 (all four tests) | Highly significant |
| Alternative hypotheses supported                   | 4 of 4                    | All supported      |

### 5.6.5 The Role of Income and Education

Educational qualification and income level have been confirmed as effectual contextual factors affecting the relationship between financial behaviour and financial literacy. According to regression analysis, educational qualification accounts for 47.8% variance ( $R^2 = 0.478$ ) in income category. This means increasing access to education, as suggested by RPCC, will bring not only compounding benefits for financial capacity but also for financial literacy in the long run.

*Data Table 5.26: Key Statistical Outcomes — Chapter 5 Summary*

|                                                                              |                                                                    |                                                              |                                                   |
|------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------|
| <b><math>R^2=0.611</math></b><br>Savings explained by<br>Financial Education | <b><math>r=0.471</math></b><br>Education–Investment<br>Correlation | <b><math>p&lt;0.001</math></b><br>All Hypotheses Significant | <b>4/4</b><br>Alternative Hypotheses<br>Supported |
|------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------|

From this chapter 5, it is clear that financial literacy is an important factor of consumer financial behavior in the local context of RPCC. Those people who have taken financial education, can save more money, take more financial risks, and manage debt better. Also, this chapter has identified the awareness-access paradox as the central structural challenge. Residents of RPCC have recognized the importance of financial literacy. But they are lacking behind due to proper access of such education. Also, the findings have identified that all four-research hypothesis are supported statistically.

## DISCUSSION

This conducted research shows that financial knowledge is a significant factor in shaping the financial behavior of consumers in Rangpur City Corporation (RPCC). But, the financial action is not the same everywhere. The results depicts that many people agree with the importance of financial literacy and carries a positive attitude on saving, budgeting and spending carefully. This doesn't always correlate with financial practice. This discussion section disclosures a significant gap between those who are aware and those who act. That is, having knowledge on financial literacy does not necessarily translate into action. Financial capability not only depends on knowledge, but also on access, confidence, social trust in institutions.

The results of this study are aligned with "Theory of Planned Behavior" and "Financial Literacy Framework" of Lusardi and Mitchell. According to Theory of Planned Behavior, the study shows that people of Rangpur City Corporation (RPCC) have a positive attitude on financial responsibility. However, only attitude is not enough to drive behavior. Family expectations, community influences and local social practices influence people's financial decision-making. Perceived behavior control is most important. Respondents with formal financial education have reported to become more confident in financial decision-making. This indicates that financial literacy enhances self-efficacy and strengthens the ability to change intentions into behavior.

The evidence-based findings of this study support the Lusardi-Mitchell framework of financial knowledge, skills, and behavior. The analysis has shown that respondents with low level financial literacy have higher confidence in interest rates, inflation, risk diversification and risk-return. Many respondents were unable to engage themselves effectively in investment, savings and debt management because of proper knowledge on these financial terms. Similarly, the results indicate that financial education has a clear and positive effect on consumers behavior when knowledge is well-formed and applied properly, it improves the quality of their financial decision-making power.

According to the findings, formal financial education is strongly related to personal savings. Financially educated respondents were much more familiar with regular savings and they save larger amounts than those who didn't receive proper financial education. Similarly, this indicates that financial education not only informs, but also changes the way people think about discipline, planning and future security. This finding is particularly applicable for Rangpur City Corporation (RPCC) where most households are operated with little and inconsistent income. This kind of households can strengthen their resilience and decrease their vulnerability by daily saving just a little.

Debt management is another burning issue for discussion. The results suggest that formal financial education is important factor to effective debt handling. Those who have proper financial education are familiar with managing debt responsibility. On the other hand, those who haven't proper financial education struggle with payments, informal lending and borrowing choices. In Rangpur City Corporation (RPCC), low-income households depend on expensive or unreliable borrowing arrangements. This leads them to dangerously high debt levels. Another finding of this study indicates that debt literacy is a key element of financial education because it can directly impact both household stability and long-term financial well-being.

A clear gap between attitudes and actions related to investments and long-term plans is also highlighted in this study. Many respondents believe that investment builds wealth, but only a few invests. Similarly, many respondents did not review their budget regularly and it has become a very common practice. This pattern tells that awareness by itself doesn't make action. There is certain reasons behind it such as limited income, fear of loss, behavioral inertia and lack of introduction to formal financial products that make it weaker to move. In this sense, practical guidance and supportive financial environments is mandatory.

To comprehend the evidence of this study, we have to understand the local context of the Rangpur City Corporation (RPCC). Income volatility, Remittance dependence, Informal employment, Language barriers and mistrust on financial institutions shape the financial behavior of consumers. All that elements are existing in national level. In this present circumstances, financial literacy interventions

cannot depend on only classroom theories to address accessibility, cultural relevance and building trust.

However, financial literacy has a strong positive impact on consumer financial behavior of Rangpur City Corporation (RPCC). It has close connections with formal education, supportive norms, practical skills and accessible institutions. To improve the consumers financial behavior of Rangpur City Corporation (RPCC), this study will not only recommend more knowledge, but also a bigger ecosystem and it will help to make people aware on financial literacy.

## CONCLUSION AND RECOMMENDATIONS

**7.1 Conclusion:** Finally, in the conclusion, this research reveals that financial literacy of consumers is a strong and significant determinant of their financial behaviour in Rangpur City Corporation (RPCC), but not simply awareness only. The result shows that many respondents know about the importance of saving, budgeting, and investing. But there is a big gap between financial knowledge and practice. This is mainly due to the limited access of formal financial education and low confidence in financial decision-making. Local structural barriers are also another reason.

Formal financial education has a strong impact on savings, debt management and risk-taking behaviour of individuals. The respondents who have benefitted from financial education backed the practice of regular saving, proper debt management as well as informed financial decision-making. Results showed the educational qualification to be equally as important a driver of financial literacy as higher education helps improve financial understanding which supports better income and behaviour outcomes.

This conducted research shows that people are interested in financial education but their works doesn't always reflect. Most people agree that financial literacy is important investment that can create wealth. However, many people do not invest and fail to check their budget. The financial behavior of consumers is not only determined by knowledge, but also habit, confidence, social influence and the realities of their everyday life. The study shows that how awareness alone is not enough without the necessary skills and opportunities available of their life.

To understand the findings of this research, it requires to look at the local context of Rangpur City Corporation (RPCC). Income instability, informal employment, remittance dependence, distrust in financial institutions, and language barriers have shaped money management behaviours and responses to financial education of the consumers in Rangpur City Corporation (RPCC). So, the implication of any financial literacy programs should be based on local demands rather than conventional demands. That type of financial literacy programs related to local culture and practical in nature should be implemented within this community.

Moreover, to improve the financial behavior of the consumers, financial literacy is mandatory.

After all, financial literacy works best in the combination of enhanced accessibility, trustworthy institutions, and supportive social conditions. The RPCC evidence suggests that improving financial well-being requires not only just knowledge but also the enabling environment to use that knowledge in day-to-day lives of the residents of the study area.

**7.2 Recommendations:** The research findings, qualitative findings of Key Informant Interviews, analysis and conclusions drawn in the discussion chapter provide the basis for the following evidence-based recommendations. Organised across three dimensions, namely (1) Broadening Access to Financial Education, and (2) Enhancing Quality and Relevance of Contents of Financial Education, and (3) Strengthening Institutional and Structural

Environment for Financial Literacy. Every recommendation outlines the leading stakeholders, estimated timeline and evidence base from the study.

## Recommendations From The Study



### Access to Financial Education

Ensuring financial education available to everyone.



### Enhancing Quality

Improving the relevance and effectiveness of financial education.



### Strengthening Institutions

Creating supportive structures for financial literacy.

### 7.2.1 Access to Financial Education

According to the findings of this research, the residents of RPCC haven't proper access to formal financial education. Sixty-five per cent of the respondents never received any formal financial education. Also, the available provision is dominated by one-off non-formal workshops and not institutionalised and prolonged efforts. On multiple delivery channels, actions need to be taken simultaneously.

**Formal Curriculum Integration:** Adding financial literacy education to the formal school curriculum will provide the most sustainable and equitable solution to the financial education access gap. Personal finance should be made a compulsory subject from primary to higher secondary level. The curriculum for that subject should be designed based on the cognitive level and financial expression of students. Ministry of Education and Higher

educational institutions of RPCC can play an important role in this matter. Findings from this study - which show educational qualification is a strong predictor of financial literacy. It also suggests that providing formal financial literacy education in our existing educational system will result in multiplied benefits.

**Community-Based Outreach Programs:** It is important to take financial literacy to wherever RPCC residents are. It is suggested that NGOs, local government, and financial institutions should hold regular workshops and awareness sessions at mosques, community centres, schools, and local markets. These programs must be in local language, use familiar financial situations in the RPCC economic context (like agricultural trade, cash management of small business, usage of remittances). Lastly, they must have trusted community figures (like religious leaders and ward-level government officials) as champions of the program.

**Digital Financial Literacy Delivery:** The largest proportion of RPCC survey respondents (30%) belong to the 26-32 age cohort. This cohort is relatively well-connected. The mobile phone apps, SMS capable of sending daily messages on financial literacy, YouTube channels (in Bangla), and WhatsApp-based financial education groups are all easy and scalable ways to reach this digitally engaged group. Collaborating with Bangladesh's telecoms for fee-free data access to financial education content would increase reach among lower-income groups whose data costs restrict content access.

### **7.2.2 Enhancing Financial Education Quality and Content Relevance**

Improving access to financial education is necessary but not sufficient; the quality and contextual relevance of financial education content also need to be systematically improved so that it generates durable behavioural change and not just knowledge acquisition that is not practiced.

**Debt Management Literacy:** Based on the findings of the study, only 45% residents of RPCC manage debt. 100% of the formally financially educated respondents manage debt. So, debt management should be considered a priority content area of financial literacy programs in Rangpur City Corporation. The training essential should cover topics among others understanding the terms of the loan, interest calculation, promissory note, and impact of TDS which is to say tax deducted at source on loans offered by big banks on loans taken from money lenders on interest rate comparison of formal bank credit to money lender rate; debt repayment strategy for trapping prevention; long-term impact of debt amassment on borrower's financial standing and credit worthiness.

**Gender-Sensitive Financial Education:** The findings from KII also shows that there is a clear gender gap in financial literacy and financial behavior. The national evidence from the Center for Policy Dialogue-CPD (2022) also supports that. This emphasizes for more gender-sensitive financial education. Women from the Rangpur City Corporation (RPCC) faces some particular financial vulnerabilities such as formal income, higher dependence on remittances and social norms that limits their financial decision-making. Financial literacy programs should be designed based on the context specific needs and barriers in Rangpur City Corporation (RPCC).

**Retirement and Long-Term Financial Planning:** Only 25% of respondents are currently saving money for retirement under emergency funds. The aim of financial literacy programs should not only limited to budgeting and financial management terms, but also long-term financial planning for future such as retirement planning, educational planning of children and making wealth. Taking into account the low level of formal pension coverage in Bangladesh for informal sector workers (which is a large part of the RPCC working population), it is important to promote awareness of and actual access to voluntary retirement savings products.

### **7.2.3 Strengthening the Institutional and Structural Environment**

The findings from the qualitative part of the study suggest that the enhancement of financial literacy is necessary but not sufficient without improvement of the structural and institutional environment. The study also reveals multiple structural suggestions:

**Financial Institution Trust-Building:** The documented mistrust of formal financial institutions in segments of the RPCC population limits the actual use of financial literacy even by those who have it. Financial institutions including banks operating under Rangpur City Corporation should consistently undertake community engagement, ensure transparent fee communication, implement accessible complaint mechanisms & ensure proper education on their financial products to rebuild institutional trust. An existing vehicle through which the access of formal financial service can be extended to the peripheral wards of RPCC where institutional mistrust and physical access barriers are most acute is the agent banking expansion programme of Bangladesh Bank.

**Multi-Stakeholder Coordination Platform:** The financial literacy initiatives in RPCC are currently distributed among various entities like NGOs, banks, government bodies, and educational institutions. There is no coordination among them and a coordination gap is clearly visible. A multi-stakeholder financial literacy coordination platform for Rangpur City Corporation (RPCC) should be used to share data, coordinate delivery, pool resources, avoid duplication, and systematically evaluate program effectiveness. This can be created and operationalized by Bangladesh Bank (BB) or RPCC local government. This platform can involve the representatives of RPCC administrative authority, Educational institutions, Microfinance institutions, Commercial banks, and Bangladesh Bank.

**Integration of Microfinance and Literacy Programs:** Financial literacy module should be made compulsory or precondition to microcredit by microfinance institutions like BRAC, Grameen Bank, and Palli Karma-Sahayak Foundation (PKSF) affiliated MFIs in Rangpur City Corporation (RPCC). The findings of the study says that the formal financial education leads to almost perfect debt management outcomes. Thus, financial literacy provided by microfinance mechanism could affect default rates and over-indebtedness of lower-income people of Rangpur City Corporation (RPCC). Microfinancing framework and financially capable clients is presented with financially sound ground.

**Corporate Tax Incentives for Employee Financial Education:** In collaboration with Ministry of Finance (MoF) and National Board of Revenue (NBR) might promote tax deductions for those

private sector organizations keeps reserve money in certified financial education initiatives for employees. This kind of mechanism for private sector would be used as a delivery channel for financial literacy. It will ensure financial inclusion too.

**Longitudinal Research and Program Evaluation:** The study proposes an assessment of financial literacy along with financial behaviour among the residents of Rangpur City Corporation (RPCC) and it is a cross-sectional survey. While, there comes the question of reviewing the effectiveness of programs and propose necessary changes, longitudinal surveys should be periodically conducted. It will assess the changes in the levels of financial literacy, behavioural outcomes and transitions of the program over time. Public and private universities, Bangladesh Bank (BB) and RPCC local government agencies should work together to institutionalize this continuous research. Gaining systematic program appraisal information will help adapt financial literacy programs to changing needs, the evolving market for digital financial products, and changing socio- economic conditions in northern Bangladesh with evidence.

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