



## FINANCIAL LITERACY AND PERSONAL FINANCIAL BEHAVIOUR AS DRIVERS OF FINANCIAL RESILIENCE AMONG MICROENTREPRENEURS

**Md. Anwar Hossain Rubel<sup>i</sup>**

Deputy General Manager,  
BASIC Bank PLC,  
Bangladesh

### **Abstract:**

Microentrepreneurs constitute a vital yet financially vulnerable segment of emerging economies. This study examines the antecedents of financial resilience among microentrepreneurs by analysing the direct effects of financial literacy and personal financial behaviour, as well as the mediating role of personal financial behaviour in the financial literacy and financial resilience relationship. Using a cross-sectional survey of 300 Microenterprise owners in Khulna City, Bangladesh, the study employed Partial Least Squares Structural Equation Modelling to test the proposed relationships. The results indicate that financial literacy has a strong and statistically significant positive effect on financial resilience. Financial literacy also exerts a strong positive influence on personal financial behaviour. Although the direct effect of personal financial behaviour on financial resilience is positive, it is not statistically significant at conventional levels, while the indirect effect of financial literacy on financial resilience through personal financial behaviour is statistically significant, indicating partial mediation. These findings suggest that financial literacy is a key driver of resilience among microentrepreneurs and that improved financial behaviour can serve as a complementary channel through which knowledge is translated into resilience. The study contributes to the literature on entrepreneurial finance and financial capability by providing empirical evidence from Bangladesh, a context in which microentrepreneurs face structural financial constraints and heightened exposure to shocks. The findings have practical implications for policymakers, microfinance institutions, and development agencies seeking to design targeted financial education and behaviour-oriented support programmes for microentrepreneurs.

**JEL:** G53, D14, L26, O12, M21

**Keywords:** microentrepreneurs, financial literacy, personal financial behaviour, financial resilience, emerging economy

---

<sup>i</sup> Correspondence: email [rubelan@basicbanklimited.com](mailto:rubelan@basicbanklimited.com)

## 1. Introduction

Microenterprises, which are generally defined as those with fewer than ten employees and are run by the owner, form the base level of the economic activity in low and middle-income countries. Their importance in numbers and structure in Bangladesh can hardly be overemphasized. According to the Bangladesh Bureau of Statistics (BBS) Economic Census 2023, there are about 8.9 million Microenterprises in the country, which make up 99% of all non-farm establishments and contribute an estimated 27% of the national GDP (BBS, 2023). More recently, data gathered by the International Labour Organisation (ILO) show that there are 11.8 million entrepreneurs in Bangladesh, 99% of whom are employed in the cottage, micro, small and medium enterprise (CMSME) sector, contributing to more than 30% of GDP and providing almost 80% of all industrial employment (ILO, 2025). In spite of this overall importance, micro-entrepreneurs continue to be highly vulnerable to financial fragility, which is defined by low level of capital reserves, limited access to formal credit, strong reliance on informal credit market and high sensitivity to income shocks (Quasem, 2021; Sarker, 2022). These structural vulnerabilities were brought into sharp focus by the COVID-19 pandemic, which led to numerous business failures by Microenterprises who did not have enough liquidity buffers when faced with long-lasting demand contractions (Shen et al., 2020; World Bank 2020).

In this context, financial resilience, defined as the ability to withstand negative financial shocks, adjust financial behaviours and bounce back to pre-shock path, has become a subject of increasing scholarly interest in the entrepreneurship research literature as well as in household finance literature (Copeland & Shope, 2006; Singh & Blum, 2020). Financial resilience is not just about financial assets; it is about a combination of cognitive skills, adaptive behavioural patterns, and safety nets, including emergency savings and insurance (Lusardi, Hasler, & Yakoboski, 2021). However, for micro-entrepreneurs in resource-poor settings and with access to very weak formal financial services, this is complicated by the fact that they live in highly informal environments and that they suffer from a chronic cognitive burden of scarcity of financial resources (Mullainathan & Shafir, 2013). Empirical research on the determinants of financial resilience among micro-entrepreneurs in developing countries is scarce, and studies that examine the extent of financial resilience are mainly at the household level in high-income country settings (Klapper & Lusardi, 2020), whereas studies of macro-level credit market interventions are also limited (Khandker & Samad, 2014).

Theoretically, two constructs stand out as antecedents of financial resilience of micro-entrepreneurs. The first one is financial literacy (FL) which is knowledge and skills that help individuals make informed and effective financial decisions (Lusardi & Mitchell, 2014). A strong and growing body of cross-national evidence has consistently linked higher financial literacy with better financial outcomes, such as higher retirement saving rates, lower over-indebtedness, higher net worth, and greater financial resilience to financial shocks (Klapper & Lusardi, 2020; Lusardi & Mitchell, 2023; Van Rooij, Lusardi, & Alessie, 2011). Financial literacy is especially relevant in entrepreneurial

settings where owner-managers are expected to manage both household and business finances – frequently without the help of professional financial advice – and financial knowledge is a critical component of human capital (Klapper, Lusardi, & Panos, 2013; Lusardi & Mitchell, 2014).

The second antecedent is personal financial behaviour (PFB), which refers to the financial habits that have been performed or enacted, such as saving, budgeting, disciplined debt management, and proactive contingency planning (Dew & Xiao, 2011). Financial literacy is about what people know, but personal financial behaviour is about what people do: and, crucially, knowledge does not always lead to protective financial behaviour, especially in situations where there are structural barriers and behavioural biases (Hastings, Madrian, & Skimmyhorn, 2013; Tang & Baker, 2016). There has been a growing body of research that focuses on PFB as a potential mediator between financial literacy and positive financial outcomes, because the cognitive financial capability needs to be translated into financial habits before it can provide material resilience benefits (Park & Kim, 2020; Wang, Liu, & Li, 2023). However, research on this mediated pathway is still limited, especially in the field of micro-entrepreneurship in emerging economies, where institutional conditions, informality, and limited access to financial markets significantly impact the knowledge–behaviour–resilience pathway.

The current study fills three related gaps in the existing literature. First, although the direct link between financial literacy and financial resilience has been explored in developed country contexts, there is limited empirical research in emerging economies, and on micro-entrepreneurs, which limits the generalisability of theoretical frameworks. Second, previous studies have typically examined financial literacy and personal financial behaviour as standalone determinants of financial outcomes, and systematic testing of the joint structural model (mediation) is lacking in the micro-entrepreneurial context (Park & Kim, 2020; Wang et al., 2023). Third, the urban Microenterprise environment of Khulna City, the third largest city in Bangladesh, offers a contextually unique and policy-relevant empirical study site that, despite having one of the highest concentrations of Microenterprises in the country, has received little attention in the international small business and entrepreneurial finance literature.

Drawing on a cross-sectional survey of 300 Microenterprise owners in Khulna City, Bangladesh, and employing Partial Least Squares Structural Equation Modelling (PLS-SEM), this study tests three hypotheses. The remainder of the paper is structured as follows. Section 2 reviews the theoretical and empirical literature and develops the hypotheses. Section 3 describes the research design, sampling strategy, measures, and analytical approach. Section 4 presents the measurement and structural model results. Section 5 discusses the findings within their theoretical and contextual frame, and Section 6 concludes with implications for theory, practice, and policy.

## 2. Review of Relevant Literature and Hypotheses Development

### 2.1 Microenterprises and Their Financial Context

Microenterprises are generally defined as enterprises with less than ten employees, most of which are owned by their operators and have small or even absent asset holdings and have limited access to formal financial systems (Khavul, 2010). They are a major source of self-employment, income, and grassroots poverty alleviation in developing economies (Bruton et al., 2013; Essel et al., 2020). The latest Economic Census in Bangladesh found 8.9 million of these units, which account for 99% of all non-farm units and contribute around 27% of the national GDP (Bangladesh Bureau of Statistics [BBS], 2023). It is estimated that 92% of these companies are not registered and are particularly at risk of structural weakness, credit exclusion, and economic disruption (Quasem, 2021; Sarker, 2022). It is not only structural, but also institutional, vulnerability. Microentrepreneurs usually run a business and a household together and do not have access to a professional advisory service or formal accounting system. They rely on informal credit, operate with low profit margins, and lack insurance coverage, which puts them at multiple financial risks (Khavul et al., 2013). The COVID-19 pandemic also provided a stark reminder of the impact of these exposures as Microenterprises with thin buffers of liquidity have been disproportionately affected by extended disruptions to demand and supply chains (World Bank, 2020). In this context, the individual-level determinants of financial resilience of micro entrepreneurs are not only of theoretical interest but also of practical urgency.

### 2.2 Financial Literacy

Financial literacy is the knowledge and skills needed to make informed and effective financial decisions (Lusardi and Mitchell, 2014). Interest and compounding, budgeting, saving behaviour, debt management, risk diversification, and investment decision-making are its core domains (Remund, 2010). There is cross-national evidence that higher financial literacy is associated with better financial outcomes, such as increased retirement readiness, a lower likelihood of being over-indebted, higher net worth, and a lower likelihood of being a victim of predatory financial products (Klapper and Lusardi, 2020; Van Rooij et al., 2011). Financial literacy is of greater significance in the entrepreneurial environment. Without professional assistance, owner-managers of micro enterprises regularly review cash flow situations, analyse borrowing costs, and make contingency plans. Kumari et al. (2024) concluded that financial literacy has a positive and significant impact on business performance and innovativeness of the microentrepreneurs in emerging markets. Likewise, Klapper et al. (2013) report that small business owners with low financial literacy tend to make suboptimal reinvestment decisions and are more likely to fail their businesses. Financial literacy is thus a productive human capital that can improve the quality of decisions in the entire spectrum of financial choices that Microenterprise owners make (Becker, 1964). Modest increases in financial knowledge can lead to meaningful improvements in financial preparedness

and resilience, especially in the Bangladeshi context where financial education is low, and the market is largely informal.

### **2.3 Personal Financial Behaviour**

Personal financial behaviour (PFB) is defined as the routines that have been enacted by individuals to cope with income, expenditure, saving, borrowing and debt (Dew and Xiao, 2011). It does not measure financial literacy, but rather how people utilize financial knowledge. Dew and Xiao (2011) measured PFB by comparing shopping behavior, paying bills on time, sticking to the budget, saving for long-term goals, maintaining insurance coverage, and repaying loans. Positive PFB is supposed to be a behavioural manifestation of financial capability, the way in which cognitive knowledge is translated into material financial security. The study has consistently shown that there is a positive correlation between financial literacy and positive financial behavior. Those who know more about finances are more likely to budget regularly, not to have high-cost debt, and to have emergency savings (Henager and Cude, 2016). On the other hand, people with low financial literacy are more likely to make hasty purchases, to borrow informally and to lack adequate insurance coverage, especially microentrepreneurs in developing economies (Khavul et al., 2013). However, learning does not necessarily lead to good behavior. Self-control constraints, social norms, and contextual factors have been demonstrated to cause a disconnect between knowledge and action (Hastings et al., 2013; Tang and Baker, 2016). This finding highlights the need to explore PFB as not just a product of financial literacy, but also as the means by which financial literacy can affect financial well-being generally.

### **2.4 Financial Resilience**

Financial resilience is defined as the ability to withstand, adapt and recover from negative financial events (Copeland and Shope, 2006; Gutter et al., 2010). It encompasses both structural buffers, such as liquid savings, insurance, and diversified income streams, and adaptive capacities, including flexible financial planning, social capital for informal support, and awareness of available assistance resources. However, Mullainathan and Shafir (2013) suggest that chronic financial scarcity systematically limits the ability to be resilient, as it leads to a constriction of the cognitive resources available and short-term thinking, making deliberate efforts at resilience building especially challenging for the resource-constrained microentrepreneurs. Financial literacy is a basic enabling factor for financial resilience, as noted in previous studies. The more financially literate people are, the more likely they are to have emergency savings, diversified assets, and a contingency plan for income loss (Lusardi et al., 2011). This relationship is not limited to high-income countries, since Klapper and Lusardi (2020) offer cross-national evidence for the link between financial literacy and self-reported financial resilience for 144 countries worldwide. In the case of entrepreneurs in particular, Hardy and Lyons (2019) report that financial knowledge is positively linked to business recovery velocity and quality after the shock. Recent research has also emphasized how digital financial literacy can deepen

these advantages, as it enhances access to formal financial instruments and broadens the channels and pathways for knowledge to contribute to resilience (Durai and Grace, 2024).

## 2.5 Theoretical Framework

This study is based on two related theories. First, according to Human Capital Theory (Becker, 1964), knowledge and skills are productive resources which improve the quality of decisions and economic results. In the current context, financial literacy can be considered as a type of human capital which gives the microentrepreneurs the mental equipment to deal with financial risk, plan ahead and withstand shocks. Second, the Theory of Planned Behaviour (Ajzen, 1991) gives the micro-level behavioural mechanism: financial knowledge influences intentions to engage in prudent financial management, and intentions in turn activate financial behaviours, which in turn have material financial consequences. These frameworks suggest that financial literacy will have a direct impact on resilience and also indirectly through encouraging positive financial behaviours.

## 2.6 Hypotheses Development

Based on the above conceptual and empirical literature, the following three testable hypotheses are proposed. Microentrepreneurs who are financially literate will be better able to appreciate the importance of precautionary saving, understand the cost of credit, and plan for financial shocks. There is a constant link between financial knowledge and resilience outcomes across countries and sectors (Hastings et al., 2013; Klapper and Lusardi, 2020; Lusardi et al., 2011). Accordingly:

**H<sub>1</sub>:** Financial literacy has a significant positive direct effect on the financial resilience of microentrepreneurs.

Financial literacy also provides people with the concepts they need to turn what they know into what they do. The evidence in this study aligns with previous empirical research in different cultural contexts, which has found that individuals with higher levels of financial literacy tend to engage in better financial practices, such as budgeting, saving, and managing debt responsibly (Henager and Cude, 2016; Kumari et al., 2024). As such:

**H<sub>2</sub>:** Financial literacy has a significant positive effect on the personal financial behaviour of microentrepreneurs.

Finally, PFB is thought to be a behavioural pathway through which financial knowledge can be translated into material resilience. Previous studies indicate that positive financial habits, such as saving regularly, spending within their means, and planning for contingencies are partially mediators between financial knowledge and its protective effect (Park and Kim, 2020; Wang et al., 2023). This suggests a partial rather than complete mediation, since financial literacy also may have a direct cognitive impact on resilience, in terms of risk awareness and preparedness. Accordingly:

**H<sub>3</sub>:** Personal financial behaviour partially mediates the relationship between financial literacy and financial resilience among microentrepreneurs.

### 3. Material and Methods

#### 3.1 Research Design

The present study used cross sectional quantitative design to analyse the relationship between financial literacy, Personal financial behaviour, and financial resilience of the Micro entrepreneurs of Khulna City, Bangladesh. The study was deductive in nature, as the study aimed to test the hypotheses that are derived from the existing theory and previous empirical studies. A structured questionnaire was chosen as the data collection tool, as it enables the measurement of the latent constructs, which is appropriate for survey-based research in an entrepreneurship context and for behavioural finance research (Creswell and Creswell, 2018; Saunders, Lewis, and Thornhill, 2019). The design is suitable to examine relationships between variables but does not allow causal statements that are as strong as those from longitudinal or experimental studies.

#### 3.2 Population and Sample

The target population were the micro enterprise owners of Khulna City. Khulna is a key urban area in southwestern Bangladesh and has a high concentration of micro enterprises involved in repair, handicraft, food processing, services, and retail trade. Purposive sampling was adopted since a complete sampling frame of all micro entrepreneurs was not available and respondents were selected based on specific criteria and to include a variety of micro business categories. Purposive sampling is being used when field settings make probability sampling impractical, and researchers want to know about the information-rich cases that are most relevant to the research problem (Etikan, Musa, and Alkassim, 2016; Campbell et al., 2020). The four active commercial areas of the city where the data were collected were New Market area, Daulatpur commercial area, Shibbari and Moylapota commercial precinct. These sites were chosen because they are the places where a variety of micro enterprise activities are located and access to the owners was possible during their business hours. A total of 300 completed questionnaires were kept for analysis. This sample size is considered appropriate for PLS-SEM, which is typically used with relatively small samples, as long as the model is theoretically sound and the measurement quality is satisfactory (Hair et al., 2022; Sarstedt, Hair, Nitzl, Ringle, and Howard, 2022). The field team did not try to get too many respondents from very similar businesses at the same location to avoid response redundancy.

#### 3.3 Measurement of the Constructs

All constructs were rated on previously validated multi-item scales with a seven-point Likert format (from strongly disagree to strongly agree). The use of scales that have been established enhances content validity and provides consistency with the previous studies. Financial literacy was assessed using 10 questions adapted from Lusardi and Mitchell (2014, 2015) that included questions about budgeting, understanding of interest, investment knowledge, debt management, and emergency savings knowledge. Ten items were used to measure personal financial behaviour, which included comparative

shopping, punctual payment of bills, sticking to the budget, saving, maintaining insurance policies and repayment of loans as adapted from Dew and Xiao (2011). Financial resilience was assessed by 8 items adapted from Kubilay and Bayrakdaroglu (2016) that includes contingency planning, adaptive confidence, emergency saving, social support, and knowledge about resources to cope with shocks. Indicator reliability, internal consistency, convergent validity, and discriminant validity were evaluated for the measurement model before estimating the structural relationships.

Outer loadings were used to check the reliability of indicators, with loadings of 0.708 and higher preferred, although indicators with slightly lower loadings can be kept as long as they help with construct coverage and do not harm reliability (Hair et al., 2022). Cronbach's alpha, composite reliability, and rho\_A were calculated to assess internal consistency. Average variance extracted was used to evaluate the convergent validity, whereby the value exceeding 0.50 would mean that the construct was explaining more than half of the variance of the indicators. To assess the discriminant validity, the Fornell Larcker criterion and the heterotrait monotrait ratio, which is one of the most stringent criteria to check whether constructs are empirically distinct (Henseler, Ringle, and Sarstedt, 2015; Hair et al., 2022) were employed.

### **3.4 Analytical Approach**

Data analysis was carried out in two phases. Descriptive statistics was calculated for summary information on the demographic characteristics of the respondents and the central tendencies of the observed items. Second, the proposed model was estimated by variance based PLS-SEM. The decision to use this technique was based on the fact that the study was aimed at explaining and predicting relationships among latent variables, the sample size was relatively small, and survey data of this type is often not multivariate normal. PLS-SEM is also suitable when the objective is to assess both measurement quality and structural relationships in a compact model with mediation effects (Hair et al., 2022; Richter, Cepeda, Roldán, and Ringle, 2022). Path coefficients, bootstrapped *t*-statistics, *p*-values, coefficient of determination, effect sizes and predictive relevance were used to evaluate the structural model. Robust standard errors and confidence intervals for direct and indirect effects were derived by a bootstrap procedure with 10,000 subsamples. The specific indirect effect of financial literacy on financial resilience via personal financial behaviour was estimated as a way to assess mediation. This is advised as the direct pathway between the mediator and outcome variables should be assessed directly, not just indirectly from the significance of each of the individual pathways (Hair et al., 2022). Overall, the analytical approach adopted was consistent with the current PLS-SEM practice, and it was deemed suitable to test a theoretically grounded model in the context of a small sample survey on micro entrepreneurs in the context of an emerging economy. The use of validated scales, field-based data collection and bootstrapped structural estimation gives a defensible starting point to explore the proposed relationships between financial literacy, personal financial behaviour, and financial resilience.

## 4. Results and Discussion

### 4.1 Demographic Profile

Finally, 300 respondents of micro entrepreneurs were included in the sample of the study from Khulna City, Bangladesh. The profile was mainly male (77.3%) and female (22.7%) which is typical of the gender imbalance in the ownership of micro enterprises in Bangladesh. The majority of respondents were of working age, with the 27-35 age band being the largest (34.0%) followed by 36-50 (26.7%). The educational level of the sector was relatively moderate to high with 38.0% possessing an HSC and 25.3% a graduation degree. Business age was also varied, but the highest percentages were found in the 3-5 year and 6–10-year ranges, suggesting a mix of developing and more established businesses.

**Table 1: Demographic profile**

Category		<i>n</i>	%
<b>Gender</b>	Male	232	77.30%
	Female	68	22.70%
<b>Age Group</b>	Less than 18 Years	4	1.33%
	18–26 years	52	17.32%
	27–35 years	102	34.00%
	36–50 years	80	26.70%
	More than 50 Years	62	20.65%
<b>Educational Level</b>	SSC (Secondary School Certificate)	23	7.67%
	HSC (Higher Secondary Certificate)	114	38.00%
	Graduation degree	76	25.30%
	Postgraduation degree	4	1.33%
	Other education levels	14	4.67%
	No education levels	69	23.03%
<b>Business Age</b>	Less than 5 Years	61	20.33%
	5 – 10 Years	79	26.33%
	10 – 15 Years	101	33.67%
	More than 15 Years	59	19.67%
<b>Monthly Income</b>	Less than BDT 30,000	184	61.30%
	BDT 30,000 – BDT 50,000	96	32.00%
	More than BDT 50,000	20	6.70%

The income was modest with 61.3% of the respondents earning less than BDT 30,000 and 6.7% earning more than BDT 50,000 per month. The overall demographic trend indicates a low-income micro entrepreneur population in a financially restricted environment, providing the right setting for considering financial resilience.

### 4.2 Descriptive Patterns

Average scores in the descriptive results indicate moderate to relatively high scores in each of the three key constructs. The mean scores were 4.39 for financial literacy, 4.71 for personal financial behaviour and 4.45 for financial resilience (all on 7-point scales). For

the financial literacy items, the highest level of response was to have a plan for paying off current debt, with the lowest level of response being to use a credit card when needed and planned for. This is typical of the low level of formal credit product penetration in the local micro enterprise environment. Comparative shopping had the highest mean and investment in stocks, bonds, or mutual funds had the lowest mean for personal financial behaviour. Not surprisingly, this is in a situation where formal capital markets are scarce and financial behaviour is focused primarily on daily budgeting, saving, and debt management. The community resources awareness was the highest mean score in the financial resilience scale, and the investment knowledge was the lowest. Results suggest that in this sample, the factors of practical coping awareness and informal support were more influential factors than the financial strategies in the portfolio.

### 4.3 Measurement Model

The internal consistency, convergent validity, and discriminant validity of the measurement model were evaluated, following the PLS-SEM procedures. The manuscript reports acceptable measurement quality for financial literacy and personal financial behaviour based on the construct reliability statistics, which exceed or approach conventional thresholds for Cronbach's  $\alpha$ , composite reliability, and rho\_A. However, financial resilience exhibited lower  $\alpha$ , but acceptable composite reliability and AVE, which is in line with the advice that in PLS-SEM, composite reliability is a more appropriate reliability indicator than  $\alpha$ .

**Table 2: Assessment of Measurement Model**

Constructs	Discriminant Validity			Cronbach's $\alpha$	CR (rho_A)	CR (rho_C)	AVE
	FL	FR	PFB				
FL				0.751	0.715	0.751	0.552
FR	0.795			0.693	0.775	0.679	0.554
PFB	0.827	0.844		0.813	0.713	0.743	0.596

**Note:** FL = Financial Literacy; FR = Financial Resilience; PFB = Personal Financial Behaviour. CR = Composite Reliability; AVE = Average Variance Extracted

Retained items ranged from 0.719 to 0.835 on their indicator factor loadings, and several items with loadings between 0.40 and 0.708 were dropped. Such a strategy is justified when dropping an item would not meaningfully improve the construct, and when the items that are retained are conceptually important aspects of the latent variable. Convergent validity was demonstrated by AVE values of the three constructs that were greater than 0.50. As for discriminant validity, all the values are found less than 0.85 maintaining the guideline set by Henseler et al. (2015). Hence, the measurement results confirm the overall model, and at the same time, the conceptual and empirical distinction between financial literacy and financial resilience should be interpreted with caution.

#### 4.4 Structural Model

The structural model was estimated with 10,000 bootstrap subsamples, a standard procedure to evaluate the significance and stability of direct and indirect effects in PLS-SEM. The model accounted for 49.1% of the variance in the endogenous construct, financial resilience, which is a moderate to substantial amount of variance accounted for by the model. It is therefore meaningful for a behavioural model that is developed based on a relatively small sample of micro entrepreneurs. The model also appears to have predictive relevance with  $Q^2 > 0$ , which indicates that the structural specification could be useful for prediction.

**Table 3:**

Hypothesised Path		R <sup>2</sup> -value	β-Value	t-Value	p-Value	f <sup>2</sup> -Value	Q <sup>2</sup> -Value
H <sub>1</sub>	FL → FR	0.491	0.714	12.324	0.000	0.723	0.325
H <sub>3</sub>	PFB → FR		0.241	1.83	0.079	0	
H <sub>2</sub>	FL → PFB		0.778	12.262	0.000	0.761	

Note: FL = Financial Literacy; FR = Financial Resilience; PFB = Personal Financial Behaviour

The direct path between financial literacy and financial resilience was positive and statistically significant with the value of 0.714 for the standardised coefficient, *t*-value of 12.324, and *p*-value of < 0.001. This is in line with the hypothesis that financial literacy of micro entrepreneurs is positively correlated with their resilience. The path between financial literacy and personal financial behaviour was also found to be strong and significant with a coefficient of 0.778, a *t*-value of 12.262 and *p*-value < 0.001. This means that there is a strong correlation between financial literacy and more disciplined and constructive financial habits. In contrast, the direct impact of personal financial behaviour on financial resilience was positive and non-significant at 5%, with a coefficient of 0.241 and *p*-value of 0.079.

#### 4.5 Mediation Findings

The specific indirect effect of financial literacy on financial resilience via personal financial behaviour was significant with an indirect effect of 0.048 and a 95% confidence interval of [0.057, 0.207]. The indirect effect is supported by the confidence interval as it does not contain zero. This pattern suggests that there is partial mediation in the relationship between financial literacy and resilience, and the behaviour channel is relatively weak. In PLS-SEM, bootstrapped mediation testing is frequently proposed as indirect effects are often only reliably tested by resampling. Overall, the findings suggest that financial literacy also has a direct resilience effect, as well as a smaller behavioural pathway via personal financial behaviour. In this sample, the direct route seems to be the more dominant mechanism and financial behaviour acts as a secondary transmission route. This is a significant discovery as it suggests that knowledge is significant in this context, but also partly because of the way that it affects how the micro entrepreneurs engage in everyday financial activities. In practical terms, the evidence supports

interventions that combine financial knowledge building with behaviour focused support, rather than treating them as separate policy tools.

## **5. Discussion**

The present study tried to investigate the financial literacy is a positive influence on financial resilience of the micro entrepreneurs in Khulna City and personal financial behaviour is a part of the relationship. The results indicate a definite trend. Financial literacy is directly and strongly related to financial resilience, is strongly predictive of personal financial behaviour, and personal financial behaviour is indirectly but statistically significant pathway. The findings indicated that resilience in micro enterprise environments is influenced by financial knowledge as well as the habit of using this knowledge. The findings below are explained and compared with previous studies and placed in the context of the Bangladeshi micro enterprise.

### **5.1 Financial Literacy as a Resilience Resource**

The most significant finding of the study is a positive and significant direct relationship between financial literacy and financial resilience. This aligns with the literature in general that demonstrates that financial literacy is linked to greater savings for contingencies, more judicious handling of debt, and planning for shocks. This relationship is particularly critical in the micro enterprise context where the proprietor may have little or no financial buffer and must make financial decisions with little or no expert advice and in the face of uncertainty. Financial literacy thus seems to be more of a means of resilience than merely an informational attribute. The outcome is also in line with the recent study of micro entrepreneurs. It could be argued that the knowledge has operational value in small firm contexts, as found by Kumari et al. (2024) that financial literacy enhances business performance and innovativeness of micro entrepreneurs in India. Other studies on MSMEs show that financial literacy positively contributes to financial readiness, credit use, and crisis response. This can be even more significant in Bangladesh where a significant share of micro businesses is informal, lack liquidity, and are only partially linked to formal finance. The current discovery thus further supports the notion that the financial literacy of micro entrepreneurs can strengthen their ability to cope with financial shocks and bounce back from shocks.

### **5.2 Behaviour as the Practical Channel**

Positive relationship between financial literacy and personal financial behaviour is also well supported. This is consistent with literature on financial management behaviour that posits that the value of financial knowledge lies in its application as a consistent behaviour, in the form of budgeting, saving, timely repayment and controlled spending. In this study, the more financially knowledgeable micro entrepreneurs were more likely to indicate that they engaged in such a habit. That discovery reinforces the notion that knowledge is turned into behaviour when people can use what they know in their

everyday financial choices. This finding is also consistent with the Theory of Planned Behaviour (TPB), which posits that knowledge can influence intentions and consequently behaviour when the behaviour is seen as beneficial and attainable. Financial literacy has been related to improved financial behaviour and money management outcomes in similar studies conducted in the context of emerging economies. It is clear what is being implied. Financial education programmes for micro entrepreneurs should not be limited to concepts and definitions. They should also encourage behavior change on a day-to-day basis through activities, budgeting, and regular financial tracking.

### **5.3 Partial Mediation and its Meaning**

The mediation result reveals that the personal financial behaviour partially mediates the effect of financial literacy on financial resilience, however, the direct effect is still high. This implies that behaviour is relevant but is not the only factor in understanding the importance of financial literacy in relation to resilience. This outcome is best thought of as partial mediation. Financial literacy seems to enhance resilience in two ways: directly by improving anticipation, judgement, and preparedness, and indirectly by fostering good financial habits. This fits with recent mediation research done in finance and entrepreneurship, which shows that some but not all of the relationship between knowledge and wellbeing is mediated by behaviour. Furthermore, it reinforces the prior findings that cognitive ability and action-based discipline are determinants of financial resilience (Klapper and Lusardi, 2020; Lusardi, Hasler, and Yakoboski, 2021). From a practical perspective, the results indicate that financial knowledge can help a micro entrepreneur to be resilient, not only by saving regularly or repaying loans in time, but also by enabling him or her to anticipate problems, to assess the risk, and to react more calmly in the event of a disruption.

### **5.4 Why the Direct Effect is so Strong**

One interesting aspect of the results is the magnitude of the direct effect of financial literacy on financial resilience. This could be due to the nature of the Bangladeshi micro enterprise environment, which has limited access to formal financial products and many resilience strategies are based on the owner's subjective decision and informal support networks. In such a context, a little bit of knowledge can lead to an immediate practical benefit. For instance, knowing how interest works, how to differentiate between business and personal funds or how to establish a contingency fund can directly impact the owner's ability to withstand a short-term disruption. This aligns with studies that have found that financial inclusion and resilience are not only about access to services, but also about the effective use. It also aligns with the experiences of the Bangladesh-linked projects, which are leveraging digital and financial literacy initiatives to boost the recovery and competitiveness of small businesses. Such initiatives are likely to be most effective if they are designed to the realities of micro entrepreneurs and not merely based on household finance or formal sector trainings, as is done in the present study.

### **5.5 Relationship to the Bangladeshi Context**

Findings also should be interpreted within the context of the descriptive profile of the sample. Moderate to relatively high scores were observed on aspects of financial literacy, behaviour, and resilience, although the lowest scores were for aspects related to formal investment and credit product use. This trend indicates that the resilience of these micro entrepreneurs is not so much based on advanced asset management practices, but on a pragmatic approach to coping, learned repayment practices, and an understanding of the community level supports. This is in line with the findings of the studies which have revealed that the adaptive routines are being used by the micro entrepreneurs in the lower income and informal economy, instead of the institutional buffers. The sample is also split by gender, allowing for further relevance of the findings. As in the broader context of entrepreneurship in Bangladesh, there was a low representation of women. This is significant as women micro entrepreneurs may be more restricted in access to finance, networks, and digital capability. The research thus points to interventions that are specifically geared towards women such as financial education, confidence building, and access support. In such a way, the results are not only statistically relevant, but socially and policy relevant as well.

### **5.6 Measurement Implications for Interpretation**

Although the results are convincing, they should be interpreted with caution as there was some overlap in the measurement model between financial literacy and financial resilience. This indicates that there may not be a clear demarcation between the concepts of financial knowledge and financial resilience in the respondents' minds. PLS-SEM methodological guidance suggests that this overlapping should be carefully handled, particularly if the HTMT values indicate that the measure may be lacking in discriminant validity. Thus, the main message of the study should be interpreted as a robust and tightly coupled relationship between knowledge resilience and not necessarily as independent psychological domains.

### **5.7 Contribution to the Literature**

In a few aspects, the study adds to the literature. First, it takes financial literacy and resilience research into a micro entrepreneurial context in Bangladesh, which despite its size is under examined. Second, it demonstrates that personal financial behaviour is an important but partial pathway between the financial literacy and resilience. Third, it shows that the ability of micro entrepreneurs to be resilient is influenced by more than external support or market access. Additionally, it is dependent on the individual's financial capability and financial ways. This is further evidence that financial literacy is important not only for the wellbeing of the household, but for the continuity and adaptation of small businesses as well. The results, overall, would suggest that financial literacy is a key factor in financial resilience of micro entrepreneurs in Khulna City. That relationship is enhanced by personal financial behaviour, but only to some degree. In practice, this means that a resilience intervention needs to involve a combination of

knowledge, behaviour, and access. While training is not sufficient, knowledge is the stepping stone of good financial habits and resilience.

## 6. Conclusion

This study examined how financial literacy and personal financial behaviour shape financial resilience among micro entrepreneurs in Khulna City, Bangladesh. The evidence indicates that financial literacy has a strong direct association with financial resilience, while personal financial behaviour explains a smaller but significant part of that relationship. In practical terms, the findings show that micro entrepreneurs who understand financial concepts better are more likely to manage money prudently and to cope more effectively with financial shocks. The study therefore confirms that financial resilience is not only an outcome of external support, but also a product of the owner's financial knowledge and day to day financial discipline.

The study makes several contributions to the literature. First, it extends financial literacy and resilience research into a micro entrepreneurial setting in an emerging economy, adding evidence from Bangladesh, where the micro enterprise sector is large but under examined. Second, it shows that personal financial behaviour functions as a partial mediating pathway between financial literacy and resilience, which helps clarify how financial knowledge becomes practically useful. Third, it reinforces the argument that financial literacy should be understood as a strategic capability for micro entrepreneurs, not merely as a household finance attribute. The results also have clear policy relevance because they support integrated programmes that combine financial education, behaviour change, and access to appropriate financial services.

The implications are important for policymakers, microfinance institutions, and entrepreneurship support agencies. Training initiatives should move beyond basic financial concepts and focus on practical skills such as budgeting, emergency planning, debt management, and saving discipline. Because the behavioural pathway is only partial, educational programmes should be paired with tools that help micro entrepreneurs convert knowledge into routine practice. At the same time, the findings highlight the need to improve access to formal savings products, microinsurance, and emergency credit so that better knowledge can be converted into stronger resilience outcomes. For women micro entrepreneurs in particular, targeted support is essential because access barriers remain more severe and financial capability gaps are often compounded by structural constraints.

Several limitations should be acknowledged. The study used a cross-sectional design, which limits causal inference and prevents observation of how financial literacy and resilience evolve over time. The sample was limited to 300 micro entrepreneurs from urban Khulna, so the findings may not generalise to rural entrepreneurs or to other Bangladeshi cities. The data were also self-reported, which may introduce common method bias and social desirability effects. In addition, the measurement model indicated some overlap between financial literacy and financial resilience, suggesting that future

studies should refine the scales and test whether the constructs can be separated more clearly. These limitations do not weaken the value of the study, but they do define the boundaries within which the findings should be interpreted.

Future research should take several directions. Longitudinal designs would be especially useful for examining whether financial literacy training produces sustained gains in resilience over time. Comparative studies across rural and urban settings, or across different regions of South Asia, would help determine how context shapes the knowledge behaviour resilience pathway. Researchers should also test additional mediators and moderators, such as self-efficacy, risk tolerance, income volatility, digital financial literacy, and gender. Given the increasing relevance of digital finance in Bangladesh, future work could also examine how digital tools interact with financial literacy to improve resilience and access to services. Such studies would deepen understanding of how micro entrepreneurs build financial strength in environments marked by uncertainty and institutional constraint.

### **Acknowledgements**

The author would like to express sincere appreciation to **Imtiaz Masroor** for his thoughtful guidance and valuable support throughout the preparation of this manuscript. His insightful suggestions and encouragement were greatly helpful in strengthening the overall quality of the work. The author is also grateful to **Md. Hesham Ahmed** for his kind assistance and support during the manuscript preparation process. The contributions of both individuals are deeply appreciated.

### **Creative Commons License Statement**

This research work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. To view a copy of this license, visit <https://creativecommons.org/licenses/by-nc-nd/4.0>. To view the complete legal code, visit <https://creativecommons.org/licenses/by-nc-nd/4.0/legalcode.en>. Under the terms of this license, members of the community may copy, distribute, and transmit the article, provided that proper, prominent, and unambiguous attribution is given to the authors, and the material is not used for commercial purposes or modified in any way. Reuse is only allowed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License.

### **Conflict of Interest Statement**

The authors declare no conflicts of interest.

### **About the Author(s)**

Md. Anwar Hossain Rubel holds an MBA from the Institute of Business Administration (IBA), University of Dhaka (2002) and a BBA from Khulna University (1999). He began his career as a Financial Data Analyst at Grameen Fund, deputed to the Nobel Prize-winning Grameen Bank. In 2003, he joined BASIC Bank Limited, a state-owned scheduled

bank, as Assistant Manager, and currently serves as Branch In-Charge and Regional Head with over two decades of progressive service. He has accumulated specialised expertise in international trade finance and SWIFT-based fund transfers through multiple foreign training programmes. Alongside his banking career, he has developed strong research interests in Python-based data analysis, Natural Language Processing (NLP), text mining, and Tableau visualisation. He is engaged in a collaborative research project with faculty from a French university, applying transformer-based models including FinBERT to analyse financial disclosures from S&P 500 10-K filings, and is exploring a doctoral research direction in NLP methodologies applied to corporate financial text.

## References

- Ajzen I, 1991. The theory of planned behavior. *Organizational Behavior and Human Decision Processes* 50(2): 179-211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Atkinson A, Messy FA, Rabinovich L, Yoong J, 2015. Financial education for long-term savings and investments: Review of research and literature. *OECD Working Papers on Finance, Insurance and Private Pensions* 39. Retrieved from [https://www.oecd.org/content/dam/oecd/en/publications/reports/2015/09/financial-education-for-long-term-savings-and-investments\\_g17a26fb/5jrtgzfl6g9w-en.pdf](https://www.oecd.org/content/dam/oecd/en/publications/reports/2015/09/financial-education-for-long-term-savings-and-investments_g17a26fb/5jrtgzfl6g9w-en.pdf)
- Azoulay P, Jones B, Kim JD, Miranda J, 2020. Age and high-growth entrepreneurship. *American Economic Review: Insights* 2(1): 65-82. Retrieved from <https://www.aeaweb.org/articles?id=10.1257/aeri.20180582>
- Bangladesh Bureau of Statistics, 2023. *Economic Census 2023: Preliminary report*. Statistics and Informatics Division, Ministry of Planning, Dhaka, Bangladesh.
- Becker GS, 1964. *Human capital: A theoretical and empirical analysis, with special reference to education*. University of Chicago Press, Chicago, IL, USA. Retrieved from <https://www.nber.org/books-and-chapters/human-capital-theoretical-and-empirical-analysis-special-reference-education-first-edition>
- Bernheim B, Lusardi A, 2001. Financial literacy and retirement saving behavior. In: Poterba J, Wise D (Eds.), *Issues in public economics*, Vol. 1. University of Chicago Press, Chicago, IL, USA, pp 219-270.
- Bruton GD, Ketchen DJ, Ireland RD, 2013. Entrepreneurship as a solution to poverty. *Journal of Business Venturing* 28(6): 683-689. <https://doi.org/10.1016/j.jbusvent.2013.05.002>
- Campbell JY, Lusardi A, 2008. Financial literacy and financial decision-making. *Journal of Financial Economics* 87(2): 364-391. Retrieved from <https://www.jstor.org/stable/26555907>
- Cohen J, 1988. *Statistical power analysis for the behavioral sciences*, 2nd edn. Routledge, New York, NY, USA. <https://doi.org/10.4324/9780203771587>

- Copeland AE, Shope SL, 2006. Financial resilience: Exploring the construct and its relationship to financial behaviors. *Journal of Family and Economic Issues* 27(2): 154-170.
- Creswell JW, 2014. *Research design: Qualitative, quantitative, and mixed methods approaches*, 4th edn. Sage, Thousand Oaks, CA, USA. Retrieved from [https://books.google.ro/books?id=PViMtOnJ1LcC&printsec=frontcover&redir\\_esc=y#v=onepage&q&f=false](https://books.google.ro/books?id=PViMtOnJ1LcC&printsec=frontcover&redir_esc=y#v=onepage&q&f=false)
- Creswell JW, Creswell JD, 2018. *Research design: Qualitative, quantitative, and mixed methods approaches*, 5th edn. Sage, Thousand Oaks, CA, USA.
- Despard MR, Friedline T, Martin-West S, 2020. Why do households lack emergency funds? The role of financial capability. *Journal of Family and Economic Issues* 41(3): 542-557. Retrieved from <https://pmc.ncbi.nlm.nih.gov/articles/PMC7236434/>
- Dew J, Xiao JJ, 2011. The financial management behavior scale: Development and validation. *Journal of Financial Counseling and Planning* 22(1): 43-59. Retrieved from [https://www.researchgate.net/publication/256019544\\_The\\_Financial\\_Management\\_Behavior\\_Scale\\_Development\\_and\\_Validation](https://www.researchgate.net/publication/256019544_The_Financial_Management_Behavior_Scale_Development_and_Validation)
- Essel B, Agyarko RB, Sumaila UR, 2020. Micro enterprises and poverty reduction in emerging economies: Evidence from Ghana. *The Journal of Entrepreneurship* 29(1): 58-79.
- Etikan I, Musa SA, Alkassim RS, 2016. Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics* 5(1): 1-4. Retrieved from [https://www.researchgate.net/publication/359634247\\_Comparison\\_of\\_Convenience\\_Sampling\\_and\\_Purposive\\_Sampling](https://www.researchgate.net/publication/359634247_Comparison_of_Convenience_Sampling_and_Purposive_Sampling)
- Fornell C, Larcker DF, 1981. Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research* 18(1): 39-50. <https://doi.org/10.2307/3151312>
- Gutter M, Garrison S, Copur Z, 2010. Social learning opportunities and the financial behaviors of lower-income individuals. *Journal of Financial Counseling and Planning* 21(2): 23-40. <https://doi.org/10.1111/j.1552-3934.2010.00034.x>
- Guest G, Bunce A, Johnson L, 2006. How many interviews are enough? An experiment with data saturation and variability. *Field Methods* 18(1): 59-82. <https://doi.org/10.1177/1525822X05279903>
- Hair JF, Hult GTM, Ringle CM, Sarstedt M, 2017. *A primer on partial least squares structural equation modeling (PLS-SEM)*, 2nd edn. Sage, Thousand Oaks, CA, USA. Retrieved from [https://www.researchgate.net/publication/354331182\\_A\\_Primer\\_on\\_Partial\\_Least\\_Squares\\_Structural\\_Equation\\_Modeling\\_PLS-SEM](https://www.researchgate.net/publication/354331182_A_Primer_on_Partial_Least_Squares_Structural_Equation_Modeling_PLS-SEM)
- Hair JF, Hult GTM, Ringle CM, Sarstedt M, Danks NP, Ray S, 2022. *Partial least squares structural equation modeling (PLS-SEM) using R: A workbook*. Springer, Cham,

- Switzerland. Retrieved from <https://link.springer.com/book/10.1007/978-3-030-80519-7>
- Hardy M, Lyons E, 2019. Financial resilience and recovery: Insights from the business resilience study. Financial Planning Association.
- Hastings JS, Madrian BC, Skimmyhorn WL, 2013. Financial literacy, financial education, and economic outcomes. *Annual Review of Economics* 5(1): 347-373. Retrieved from <https://www.nber.org/papers/w18412>
- Hastings J, Mitchell OS, 2020. How financial literacy and impatience shape retirement wealth and investment behaviors. *Journal of Pension Economics and Finance* 19(1): 1-20. Retrieved from [https://www.nber.org/system/files/working\\_papers/w16740/w16740.pdf](https://www.nber.org/system/files/working_papers/w16740/w16740.pdf)
- Henager R, Cude BJ, 2016. Financial literacy and long and short-term financial behavior in different age groups. *Journal of Financial Counseling and Planning* 27(1): 3-13. <https://doi.org/10.1891/1052-3073.27.1.3>
- Henseler J, Ringle CM, Sarstedt M, 2015. A new criterion for assessing discriminant validity in variance based structural equation modelling. *Journal of the Academy of Marketing Science* 43(1): 115-135. <https://doi.org/10.1007/s11747-014-0403-8>
- Isaac EO, Comrie AW, Hammond C, Hatane LE, Opoku-Asare NA, 2019. Microenterprise as a strategy for job creation and sustainable poverty reduction in developing economies. *World Journal of Entrepreneurship, Management and Sustainable Development* 15(1): 48-62.
- Joshi A, Kale S, Chandel S, Pal DK, 2015. Likert scale: Explored and explained. *British Journal of Applied Science & Technology* 7(4): 396-403. <https://doi.org/10.9734/BJAST/2015/14975>
- Khandker SR, Samad HA, 2014. Dynamic effects of microcredit in Bangladesh. Policy Research Working Paper No. 6821. World Bank, Washington, DC, USA. Retrieved from <https://documents1.worldbank.org/curated/en/456521468209682097/pdf/WPS6821.pdf>
- Khavul S, 2010. Microfinance: Creating opportunities for the poor? *Academy of Management Perspectives* 24(3): 58-72. Retrieved from <https://www.jstor.org/stable/29764974>
- Khavul S, Chavez H, Bruton GD, 2013. When institutional change outruns the change agent: The contested terrain of entrepreneurial microfinance for those in poverty. *Journal of Business Venturing* 28(1): 30-50. <https://doi.org/10.1016/j.jbusvent.2012.02.005>
- Klapper L, Lusardi A, Panos GA, 2013. Financial literacy and its consequences: Evidence from Russia during the financial crisis. *Journal of Banking and Finance* 37(10): 3904-3923. <https://doi.org/10.1016/j.jbankfin.2013.07.014>
- Klapper L, Lusardi A, Van Oudheusden P, 2015. Financial literacy around the world. Standard & Poor's Ratings Services Global Financial Literacy Survey. Retrieved

- from [https://gflec.org/wp-content/uploads/2015/11/Finlit\\_paper\\_16\\_F2\\_singles.pdf](https://gflec.org/wp-content/uploads/2015/11/Finlit_paper_16_F2_singles.pdf)
- Klapper LF, Lusardi A, Van Oudheusden P, 2020. Financial literacy and financial resilience: Evidence from around the world. *Financial Management* 49(3): 513-547. <https://doi.org/10.1111/fima.12283>
- Kubilay B, Bayrakdaroğlu A, 2016. The determinants of financial distress in Shari'ah compliant companies. *Investment Management and Financial Innovations* 13(1): 293-308. <https://doi.org/10.37715/rme.v1i2.605>
- Kumari R, Sharma VC, Adnan M, 2024. Financial literacy of microentrepreneurs and its effect on the business performance and innovativeness: Empirical evidence from India. *SEDME (Small Enterprises Development, Management & Extension Journal): A worldwide window on MSME Studies*. <https://doi.org/10.1177/09708464241233025>
- Lusardi A, Mitchell OS, 2014. The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature* 52(1): 5-44. Retrieved from <https://www.aeaweb.org/articles?id=10.1257/jel.52.1.5>
- Lusardi A, Mitchell OS, 2015. The economics of financial literacy: Theory and evidence. *Journal of Economic Literature* 2014, 52(1), 5–44. Retrieved from <https://gflec.org/wp-content/uploads/2014/12/economic-importance-financial-literacy-theory-evidence.pdf>
- Lusardi A, Mitchell OS, 2023. The importance of financial literacy: Opening a new field. *Journal of Pension Economics and Finance*. *Journal of Economic Perspectives* 37(4). Retrieved from <https://www.aeaweb.org/articles?id=10.1257/jep.37.4.137>
- Lusardi A, Hasler A, Yakoboski P, 2021. Millennial financial literacy and financial well-being. TIAA Institute and George Washington University. Retrieved from [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4256797](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4256797)
- Lusardi A, Schneider DJ, Tufano P, 2011. Financially fragile households: Evidence and implications. NBER Working Paper No. 17072. National Bureau of Economic Research, Cambridge, MA, USA. Retrieved from [https://www.nber.org/system/files/working\\_papers/w17072/w17072.pdf](https://www.nber.org/system/files/working_papers/w17072/w17072.pdf)
- Lusardi A, Tufano P, 2015. Debt literacy, financial experiences, and overindebtedness. *Journal of Pension Economics and Finance* 14(4): 332-368. Retrieved from <https://www.cambridge.org/core/journals/journal-of-pension-economics-and-finance/article/abs/debt-literacy-financial-experiences-and-overindebtedness/6140546AF9CA1BAC33FAE47F35C5C178>
- Mahmud KT, Mohiuddin M, Tomizawa R, 2021. Challenges confronting women entrepreneurs in Bangladesh: A systematic review. *Sustainability* 13(24): 13856.
- Martin BC, McNally JJ, Kay MJ, 2013. Examining the formation of human capital in entrepreneurship: A meta-analysis of entrepreneurship education outcomes. *Journal of Business Venturing* 28(2): 211-224. <https://doi.org/10.1016/j.jbusvent.2012.03.002>

- Mullainathan S, Shafir E, 2013. Scarcity: Why having too little means so much. Macmillan, New York, NY, USA. Retrieved from [https://books.google.ro/books/about/Scarcity.html?id=NTnjsTHrfj8C&redir\\_esc=y](https://books.google.ro/books/about/Scarcity.html?id=NTnjsTHrfj8C&redir_esc=y)
- Nunnally JC, Bernstein IH, 1994. Psychometric theory, 3rd edn. McGraw-Hill, New York, NY, USA. Retrieved from [https://books.google.ro/books/about/Psychometric\\_Theory.html?id=r0fuAAAA\\_MAAJ&redir\\_esc=y](https://books.google.ro/books/about/Psychometric_Theory.html?id=r0fuAAAA_MAAJ&redir_esc=y)
- Park Y, Kim Y, 2020. The mediating role of personal financial behavior in the relationship between financial literacy and financial resilience. *Journal of Financial Planning* 33(6): 28-40.
- Peterson RA, Kim Y, 2013. On the relationship between coefficient alpha and composite reliability. *Journal of Applied Psychology* 98(1): 194-198. <https://doi.org/10.1037/a0030767>
- Quasem MA, 2021. Access to finance by microenterprises in Bangladesh: Evidence from enterprise surveys. *Journal of Asian Development* 6(2): 22-34.
- Remund DL, 2010. Financial literacy explicated: The case for a clearer definition in an increasingly complex economy. *Journal of Consumer Affairs* 44(2): 276-295. <https://doi.org/10.1111/j.1745-6606.2010.01169.x>
- Richter NF, Cepeda G, Roldán JL, Ringle CM, 2022. Partial least squares structural equation modelling: Foundation and recent developments. Publication details to be verified.
- Sarstedt M, Hair JF, Nitzl C, Ringle CM, Howard MC, 2022. PLS-SEM in business research: A methodological overview. Publication details to be verified.
- Saunders M, Lewis P, Thornhill A, 2019. Research methods for business students, 8th edn. Pearson, Harlow, UK. Retrieved from [https://www.researchgate.net/publication/240218229\\_Research\\_Methods\\_for\\_Business\\_Students](https://www.researchgate.net/publication/240218229_Research_Methods_for_Business_Students)
- Sayinzoga A, Bulte EH, Lensink R, 2016. Financial literacy and financial behaviour: Experimental evidence from rural Rwanda. *The Economic Journal* 126(594): 1571-1599. Retrieved from <https://www.jstor.org/stable/44076866>
- Sarker MNI, 2022. Challenges of microenterprises in Bangladesh: An analysis of constraints to growth. *Academy of Entrepreneurship Journal* 28(2): 1-9.
- Shen H, Fu M, Pan H, Yu Z, Chen Y, 2020. The impact of the COVID-19 pandemic on firm performance. *Emerging Markets Finance and Trade* 56(10): 2331-2341. <https://doi.org/10.1080/1540496X.2020.1785863>
- Singh SR, Blum L, 2020. Financial resilience during times of crisis. *Journal of Family and Economic Issues* 41: 1-7.
- Tang N, Baker A, 2016. Self-esteem, financial knowledge, and financial behavior. *Journal of Economic Psychology* 54: 164-176. <https://doi.org/10.1016/j.joep.2016.04.005>

- Van Rooij M, Lusardi A, Alessie R, 2011. Financial literacy and stock market participation. *Journal of Financial Economics* 101(2): 449-472. <https://doi.org/10.1016/j.jfineco.2011.03.006>
- Wang Y, Liu X, Li X, 2023. Financial literacy, personal financial behavior, and financial resilience: A mediating role analysis. *Emerging Markets Finance and Trade*. doi: 10.1080/1540496X.2022.2158700.
- World Bank, 2020. Small and medium enterprises in the pandemic: Impact and responses. World Bank Group, Washington, DC, USA. Retrieved from <https://documents1.worldbank.org/curated/en/729451600968236270/pdf/Small-and-Medium-Enterprises-in-the-Pandemic-Impact-Responses-and-the-Role-of-Development-Finance.pdf>
- Xiao JJ, Chen C, Chen F, 2014. Consumer financial capability and financial satisfaction. *Social Indicators Research* 118(1): 415-432. <https://doi.org/10.1007/s11205-013-0414-8>
- Xiao JJ, O'Neill B, 2016. Consumer financial education and financial capability. *International Journal of Consumer Studies* 40(6): 712-721. <https://doi.org/10.1111/ijcs.12285>