

Mobile Financial Services and Micro-Entrepreneur Resilience in Bangladesh and Myanmar

Farhana Akter^{1,*} and Aung Kyaw Min²

¹University of Dhaka, Bangladesh

²Yangon University of Economics, Myanmar

E-mail: farhana.akter@mock.iccmets.test; aung.kyaw.min@mock.iccmets.test

Abstract.

Micro-entrepreneurs in South and Southeast Asia operate with thin margins and limited buffers, which leaves them exposed to economic shocks such as inflation, currency depreciation, supply disruption and political instability. Mobile financial services (MFS) have expanded rapidly in the region and are frequently promoted as a means of strengthening the capacity of small businesses to withstand such shocks. Using survey data from 640 micro-entrepreneurs, this paper compares how MFS contribute to business resilience during economic shocks in Bangladesh and Myanmar, two countries with contrasting MFS ecosystems and shock experiences. Data were collected through structured interviews in Dhaka, Chattogram, Yangon and Mandalay between September and December 2025 and analysed using ordinary least squares regression with a composite resilience index as the dependent variable and indicators of MFS use as the main predictors. The results show that MFS use is positively associated with resilience in both countries. Access to digital savings and micro-insurance shows the strongest resilience effect, exceeding the effects of mobile payments and digital credit, and this pattern holds in both samples. The association between digital credit and resilience is positive in Bangladesh but not statistically significant in Myanmar, where credit access contracted after 2021. The paper argues that policies promoting MFS for small business resilience should prioritise savings and insurance products rather than payments alone, and that provider strategies should be adapted to the regulatory and macroeconomic conditions of each country.

Keywords: mobile financial services, micro-entrepreneurs, business resilience, digital savings, micro-insurance

**Corresponding author: farhana.akter@mock.iccmets.test*

1. Introduction

Micro-enterprises constitute the largest source of non-agricultural employment in both Bangladesh and Myanmar. Street vendors, small retailers, tailors, food stall operators, repair workshops and home-based producers account for a majority of urban livelihoods, yet they operate with minimal working capital, informal supply relationships and little or no access to formal financial institutions. This position leaves them acutely vulnerable to economic shocks. During the period from 2020 to 2025 micro-entrepreneurs in both countries experienced a succession of such shocks: the pandemic and associated lockdowns, sharp increases in food and fuel prices, currency depreciation and, in Myanmar, the profound economic disruption that followed the change of government in February 2021. The capacity of small businesses to absorb these shocks, adapt their operations and recover has become a central concern for policymakers and development agencies.

Mobile financial services, defined here as financial products accessed through a mobile phone and provided by a bank, mobile network operator or specialised provider, have

expanded rapidly in both countries. In Bangladesh, providers such as bKash, Nagad and Rocket handle a large share of remittances, merchant payments and bills. In Myanmar, services including Wave Money and KBZPay became the principal channel for many transactions after 2021 as cash shortages and banking restrictions disrupted conventional channels. Both markets have introduced digital savings, digital credit and micro-insurance through mobile platforms, although the depth and regulation of these products differ considerably.

MFS may strengthen resilience through several mechanisms: payments and transfers allow trading to continue when cash is scarce, savings provide a buffer, credit finances restocking and adaptation, and insurance transfers risk. Whether these mechanisms operate and which matters most are empirical questions that comparative studies have rarely addressed. This paper uses survey data from 640 micro-entrepreneurs in Bangladesh and Myanmar to ask whether MFS use is associated with greater business resilience during shocks, which products show the strongest association, and whether the pattern differs between the two countries.

2. Literature Review

2.1 Business resilience in micro-enterprises

Resilience refers to the capacity of a firm to anticipate, absorb, adapt to and recover from disruptive events, and Linnenluecke (2017) documents a shift from viewing it as a static property towards a set of capabilities that can be developed. For micro-enterprises it has been operationalised through the maintenance of sales and employment, speed of recovery and the ability to adjust products or channels, with financial access, diversification, networks and owner education among the strongest predictors (Branzei & Abdelnour, 2010; Doern et al., 2019). Doern et al. (2019) note that in small firms the owner's household and the business are financially intertwined, so a business shock is also a household shock.

2.2 Mobile financial services and household risk management

The earliest rigorous evidence concerns households. Jack and Suri (2014) found that Kenyan households with M-Pesa access maintained consumption after income shocks because they received more remittances from wider networks, and Suri and Jack (2016) estimated substantial long-run poverty reduction, concentrated among women. Beyond payments, digital savings have been found to increase balances and to be used for emergencies (Dupas & Robinson, 2013), and micro-insurance reduces reliance on costly coping strategies such as asset sales after covered events (Janzen & Carter, 2019).

Evidence on digital credit is more mixed. Digital loans are typically small, short-term and expensive, and while they can smooth liquidity they have also been associated with over-indebtedness and default among low-income borrowers (Björkegren & Grissen, 2020). In the context of a shock, credit may enable recovery, but it may also add to the burden of businesses whose revenues have collapsed. The effect is therefore likely to depend on the severity and duration of the shock and on the terms of the loan.

2.3 MFS and micro-enterprises in Bangladesh and Myanmar

Research in Bangladesh has documented rapid MFS adoption, a strong role in remittances and merchant payments, and persistent gaps in the use of savings and credit features (Lee et al., 2021); small businesses using MFS were more likely to continue operating during pandemic lockdowns and to receive support transfers (Islam & Muzi, 2022). In Myanmar, adoption accelerated sharply after 2021 when bank restrictions made wallets the most reliable

means of transacting, while the contraction of microfinance reduced credit availability and the regulatory environment for savings and insurance became uncertain (Turnell, 2023).

Outcomes depend on the interaction between product characteristics, user needs and context. The technology acceptance model (Davis, 1989) emphasises perceived usefulness and ease of use, shaped for MFS by agent networks, costs and trust, and Rogers (2003) highlights observability and compatibility with existing practices. In a shock context the relevant question shifts from adoption to the use of specific features and their contribution to coping, which this study addresses by comparing two countries with widespread MFS but differing product maturity and shock experience.

2.4 Hypotheses

Drawing on the literature, four hypotheses were formulated. H1 states that use of mobile payments and transfers is positively associated with business resilience. H2 states that use of digital savings is positively associated with resilience. H3 states that use of micro-insurance distributed through MFS is positively associated with resilience. H4 states that use of digital credit is positively associated with resilience. In addition, the study explores whether the magnitude of these associations differs between Bangladesh and Myanmar.

3. Methodology

3.1 Sample and data collection

Data were collected through structured face-to-face interviews with micro-entrepreneurs in two cities in each country: Dhaka and Chattogram in Bangladesh, and Yangon and Mandalay in Myanmar. Micro-enterprises were defined as businesses with fewer than ten workers including the owner. Within each city, market areas and commercial streets were selected to cover retail, food, services and small manufacturing, and enterprises were approached using a systematic interval along each street. Interviews were conducted by trained enumerators in Bangla or Burmese between September and December 2025. A total of 640 usable responses were obtained, 328 from Bangladesh and 312 from Myanmar, from 731 businesses approached, giving a response rate of 87.6 per cent. Table 1 presents the sample profile. Respondents were predominantly male in both countries, although the proportion of women owners was higher in Myanmar. Retail was the largest sector, and most businesses had operated for more than five years. Nearly all respondents had used MFS for payments, but the use of savings, insurance and credit features varied considerably.

Table 1: Sample profile of surveyed micro-entrepreneurs (N = 640)

Characteristic	Category	Bangladesh (n = 328)	Myanmar (n = 312)	Total (N = 640)
Gender	Male (%)	71.3	58.7	65.2
	Female (%)	28.7	41.3	34.8
Sector	Retail (%)	44.2	41.0	42.7
	Food and beverage (%)	23.5	27.6	25.5
	Services and repair (%)	20.4	19.9	20.2
	Small manufacturing (%)	11.9	11.5	11.7
MFS product use	Payments and transfers (%)	96.0	93.3	94.7
	Digital savings (%)	41.5	27.9	34.8
	Micro-insurance (%)	18.3	9.6	14.1

Digital credit (%)	33.8	12.2	23.3
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Source: Authors' survey data (2025)

3.2 Measures

The dependent variable was a business resilience index constructed from nine items adapted from Doern et al. (2019) and Linnenluecke (2017). Respondents were asked to consider the most serious economic shock their business had experienced in the previous three years and to rate on five-point scales the extent to which they had maintained sales, retained workers, met supplier obligations, adjusted products or channels, recovered to pre-shock revenue and avoided asset sales or borrowing from moneylenders. The items were averaged to form a single index with Cronbach's alpha of 0.86 for the pooled sample, 0.85 for Bangladesh and 0.87 for Myanmar, indicating good internal consistency. The main independent variables were four binary indicators of whether the respondent had used each MFS product type during the shock period: payments and transfers, digital savings, micro-insurance and digital credit. Control variables included owner gender, age, years of education, business age, sector, number of workers, and a binary indicator of whether the respondent had received any government or NGO relief transfer during the shock.

3.3 Analysis

Ordinary least squares regression was estimated for the pooled sample with a country dummy and for each country separately. Robust standard errors clustered by city were used. Because MFS product use is not randomly assigned, the estimates should be interpreted as associations rather than as causal effects; the inclusion of controls for owner and business characteristics mitigates but does not eliminate the possibility that more capable entrepreneurs both use more products and are more resilient. Common method variance was addressed through procedural remedies recommended by Podsakoff et al. (2003), including separating the resilience items from the MFS items in the questionnaire and assuring anonymity, and a Harman single-factor test indicated that no single factor accounted for a majority of the variance. Variance inflation factors were all below 2.1, indicating that multicollinearity was not a concern.

4. Results

4.1 Descriptive statistics

The mean resilience index was 3.21 on the five-point scale for the pooled sample, 3.38 in Bangladesh and 3.03 in Myanmar, and the difference between countries was statistically significant ($t = 5.42$, $p < 0.001$). The most commonly reported serious shock in Bangladesh was price inflation for inputs, cited by 47 per cent of respondents, followed by the pandemic lockdowns. In Myanmar, the disruption following 2021, including cash shortages, electricity outages and reduced demand, was cited by 63 per cent, with inflation and currency depreciation cited by most of the remainder. Respondents who used digital savings reported a mean resilience index of 3.61, compared with 2.99 for those who did not, and users of micro-insurance reported 3.74 compared with 3.12 for non-users. Differences for payments and credit use were smaller.

4.2 Regression results

Table 2 reports the regression estimates for the pooled sample and for each country. In the pooled model the four MFS product indicators together with controls explained 38 per cent of the variance in the resilience index. All four product types were positively associated

with resilience, but the magnitudes differed substantially. Digital savings ($\beta = 0.31$, $p < 0.001$) and micro-insurance ($\beta = 0.27$, $p < 0.001$) showed the strongest associations. Payments and transfers ($\beta = 0.12$, $p = 0.014$) and digital credit ($\beta = 0.09$, $p = 0.041$) were significant but smaller. H1, H2, H3 and H4 were therefore supported in the pooled sample. Among the controls, years of education, business age and receipt of relief transfers were positively associated with resilience, while female ownership was associated with slightly lower resilience in Bangladesh but not in Myanmar.

Table 2: OLS regression of business resilience index on MFS product use (standardised coefficients)

Predictor	Pooled (N = 640)	Bangladesh (n = 328)	Myanmar (n = 312)	Hypothesis and outcome
Payments and transfers	0.12* (p = 0.014)	0.10 (p = 0.081)	0.15* (p = 0.012)	H1 supported (pooled)
Digital savings	0.31*** (p < 0.001)	0.29*** (p < 0.001)	0.33*** (p < 0.001)	H2 supported
Micro-insurance	0.27*** (p < 0.001)	0.26*** (p < 0.001)	0.28** (p = 0.002)	H3 supported
Digital credit	0.09* (p = 0.041)	0.14** (p = 0.008)	0.03 (p = 0.612)	H4 supported (pooled, Bangladesh only)
Years of education	0.11* (p = 0.019)	0.12* (p = 0.031)	0.10 (p = 0.074)	Control
Business age (years)	0.13** (p = 0.006)	0.11* (p = 0.042)	0.14* (p = 0.017)	Control
Relief transfer received	0.10* (p = 0.028)	0.09 (p = 0.096)	0.12* (p = 0.036)	Control
Country: Myanmar	-0.16*** (p < 0.001)	—	—	Control
Adjusted R ²	0.38	0.36	0.39	

Source: Authors' survey data (2025). * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; gender, age, sector and workers included as controls

The country-specific models reveal both consistency and divergence. The associations for digital savings and micro-insurance were of similar magnitude in the two countries and were highly significant in both, confirming that these products show the strongest resilience effect regardless of context. The association for payments and transfers was significant in Myanmar but only marginal in Bangladesh, which is consistent with the greater importance of mobile wallets as a substitute for cash and banking in Myanmar after 2021. The association for digital credit was significant in Bangladesh but not in Myanmar, where the coefficient was close to zero. Interviewers noted that many Myanmar respondents who had used digital credit did so before 2021 and that lending had largely ceased during the period of the shock, so that credit could not contribute to coping.

4.3 Coping strategies by product use

To illustrate the mechanisms behind the regression results, Table 3 compares the coping strategies reported by respondents according to whether they used digital savings or micro-insurance. Users of digital savings were far less likely to report borrowing from moneylenders or selling assets, and more likely to report drawing on savings, than non-users. Users of micro-insurance were more likely to have received a payout that covered part of their loss, although the share was modest, reflecting the narrow coverage of most policies. Users of both products reported shorter recovery times. These patterns are consistent with the buffer and

risk-transfer mechanisms described in the literature (Dupas & Robinson, 2013; Janzen & Carter, 2019).

Table 3: Coping strategies during the most serious shock by MFS product use (% of respondents)

Coping strategy	Digital savings users (n = 223)	Non-users (n = 417)	Micro-insurance users (n = 90)	Non-users (n = 550)
Drew on own savings	78.5	41.2	72.2	52.4
Borrowed from moneylender	14.8	38.6	17.8	32.4
Sold business or household assets	9.4	24.5	8.9	21.5
Reduced workers or hours	31.4	46.3	33.3	42.5
Received insurance payout	11.2	3.6	48.9	0.0
Recovered to pre-shock revenue within 6 months	58.7	36.9	62.2	41.1

Source: Authors' survey data (2025)

5. Discussion

5.1 Savings and insurance as the core of resilience

The principal finding is that digital savings and micro-insurance are the MFS products most strongly associated with micro-enterprise resilience, in two countries with very different shock experiences and regulatory environments. This extends the household-level findings of Jack and Suri (2014) and Suri and Jack (2016) to the enterprise level and a wider set of products, and suggests that while payments provide the infrastructure for continued trading, resilience is built by products that create a buffer or transfer risk. The coping analysis supports this: savings users avoided moneylender borrowing and asset sales that erode the productive base, and insurance users received payouts that partly offset losses.

The weaker, context-dependent association for digital credit is consistent with the cautions of Björkegren and Grissen (2020). In Bangladesh, where credit remained available and shocks were mainly price-related, it appears to have helped businesses restock; in Myanmar, where credit supply contracted during a severe and prolonged shock, it played no measurable role. Credit's contribution thus depends on its availability during the shock itself and should not be assumed beneficial in all circumstances.

5.2 Country differences and policy implications

The lower mean resilience in Myanmar reflects both the severity of its shocks and the weaker development of savings and insurance products: only 28 per cent of Myanmar respondents used digital savings and under 10 per cent micro-insurance, against 42 and 18 per cent in Bangladesh. Since these are the products with the strongest resilience association, the gap represents a missed opportunity. The Bangladesh experience suggests that a regulatory framework allowing providers to offer savings and distribute insurance, combined with a mature agent network and bank and insurer partnerships, can extend these products at scale (Lee et al., 2021), corroborating and extending Islam and Muzi (2022).

For policymakers and development agencies, programmes promoting MFS for business resilience should prioritise digital savings and micro-insurance rather than payments alone. Savings products that allow small, frequent deposits and rapid withdrawal function best as buffers, and insurance needs coverage broad enough to respond to the shocks micro-entrepreneurs actually face, including price shocks and demand collapse. In Myanmar,

providers may need to offer informal savings features within wallets and partner with community organisations. Diffusion will depend on the observability of benefits among peers and compatibility with informal saving practices (Rogers, 2003), and on perceived usefulness and ease of use (Davis, 1989), which financial education can strengthen.

A further implication concerns public relief. Receipt of a relief transfer was positively associated with resilience, and in both countries relief was disbursed largely through mobile wallets. Registration of micro-entrepreneurs on MFS platforms therefore enables both private coping and rapid, targeted public support when shocks occur, provided that data privacy is protected.

6. Conclusion

This paper compared how mobile financial services contribute to the resilience of micro-enterprises during economic shocks in Bangladesh and Myanmar, using survey data from 640 micro-entrepreneurs. MFS use was positively associated with a multidimensional resilience index in both countries. Access to digital savings and micro-insurance showed the strongest resilience effect, with standardised coefficients of 0.31 and 0.27 in the pooled model, and these associations were consistent across the two countries. Payments and transfers showed a smaller association that was stronger in Myanmar, and digital credit showed a positive association in Bangladesh but none in Myanmar. Users of savings and insurance products relied less on moneylenders and asset sales and recovered more quickly. The findings indicate that the resilience benefits of MFS derive less from payments than from products that create buffers and transfer risk, and that policy and provider strategies should be adapted accordingly.

The study has several limitations. The cross-sectional design and the non-random use of MFS products mean that the associations reported cannot be interpreted as causal, despite the inclusion of controls; more capable or better-resourced entrepreneurs may both adopt more products and prove more resilient. Resilience was measured retrospectively and by self-report, which may introduce recall and social desirability bias. The sample was urban and drawn from four cities, so that rural micro-enterprises, whose MFS access and shock exposure differ, were not represented. Future research should employ panel designs that observe product use before and after shocks, examine the terms and coverage of specific savings and insurance products, and extend the comparison to rural areas and to other countries in the region, including those where MFS ecosystems are at earlier stages of development.

Acknowledgment

The authors thank the University of Dhaka and Yangon University of Economics for institutional support and the enumerators who conducted the fieldwork.

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