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# Assessing the Impacts of the 2025 Earthquake in Myanmar: The Post-Disaster Recovery of Manufacturing MSMEs in Mandalay and Nay Pyi Taw

by ERIA

Economic Research Institute for ASEAN and East Asia

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## Disclaimers

Python, SPSS, and STATA were used for statistical analyses. This manuscript was partially edited with the assistance of ChatGPT-5.3 and Microsoft M365 Copilot.

# Foreword

On 28 March 2025, a magnitude 7.7–7.9 earthquake struck Myanmar, with its epicentre in Sagaing, near Mandalay. The disaster caused extensive damage to infrastructure, residential areas, commercial centres, and workplaces, resulting in significant loss of life and widespread injury. The most severely affected areas were Mandalay Region, followed by Nay Pyi Taw and Sagaing Region. Thousands of households and enterprises were displaced or severely impacted, including key clusters of micro, small, and medium-sized enterprises (MSMEs) – the backbone of Mandalay's economy. According to field survey data released by the National Disaster Management Committee in August 2025, the private sector – including factories, workshops, businesses, and agricultural irrigation systems – incurred losses exceeding MK912 billion, accounting for approximately 11.4% of total earthquake-related damage.

MSMEs are a critical driver of employment and income generation in Myanmar, particularly in the retail, services, and light manufacturing sectors. The Mandalay earthquake highlighted their structural vulnerabilities, as many enterprises experienced prolonged operational disruptions, substantial asset losses, broken supply chains, and weakened consumer demand. Supporting MSME recovery is therefore essential not only for restoring livelihoods but also for strengthening community resilience and promoting regional economic stability. Effective recovery requires evidence-based strategies to assess damage, identify key constraints, and inform targeted policy interventions.

It is our hope that this report will provide guidance to design effective support programmes to accelerate MSME recovery and enhance resilience in disaster-affected settings.

Tetsuya Watanabe

President of ERIA

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A stakeholder consultation on the draft report was convened as a focus group discussion at the Ministry of Investment and Foreign Economic Relations (MIFER) in Nay Pyi Taw on 5 February 2026. The consultation was chaired by U Thant Sin Lwin, Deputy Minister of MIFER, and attended by Dr Thida Kyu, Director General, and Dr Marlar Myo Nyunt, Director General, together with officials from various ministries and partner organisations. More than 70 senior officials participated, with over 40 attending in person and approximately 30 joining online. The meeting featured presentations of key findings and in-depth discussions on policy recommendations incorporated into this report.

Finally, ERIA extends its sincere thanks to colleagues Mr Yasuhiro Yamada, Senior Policy Fellow on Mekong Affairs; Mr Jeremy Gross, Director of Mekong Affairs and Capacity Building; and Mr Stefan Wesiak, Director of Communications and Publications, along with their teams, for their strong support in coordinating and completing this study.

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# List of Acronyms and Abbreviations

| | |
|---|---|
| ASEAN | Association of Southeast Asian Nations |
| BDS | Business development services |
| CAPI | Computer-assisted personal interviewing |
| CBM | Central Bank of Myanmar |
| CSO | Central Statistical Organization |
| DICA | Directorate of Investment and Company Administration |
| DISI | Directorate of Industrial Supervision and Inspection |
| DRM | Disaster risk management |
| EERW | Enterprise Early Recovery Window |
| ERIA | Economic Research Institute for ASEAN and East Asia |
| ESOMAR | European Society for Opinion and Market Research |
| FX | Foreign exchange |
| GAD | General Administration Department |
| GDP | Gross Domestic Product |
| GRADE | Global Rapid Post-Disaster Damage Estimation |
| ICC | International Chamber of Commerce |
| IRM | Impacts and recovery monitoring |
| KII | Key informant interview |
| MCDC | Mandalay City Development Committee |
| MEC | Myanmar Earthquake Committee |
| MFI | Microfinance institution |
| MMK | Myanmar Kyat |
| MOI | Ministry of Information |
| MRCCI | Mandalay Region Chamber of Commerce and Industry |
| MSME | Micro, small, and medium-sized enterprise |
| NCDC | Nay Pyi Taw City Development Committee |
| NDMC | National Disaster Management Committee |
| NGO | Non-governmental organisation |

| | |
|---|---|
| PAPI | Paper-and-pencil interviewing |
| RTAT | Rapid Technical Assistance Team |
| SME | Small and medium-sized enterprises |
| SPSS | Statistical Package for the Social Sciences |
| TERCC | Township-level Enterprise Recovery Coordination Committee |
| UMFCCI | Union of Myanmar Federation of Chambers of Commerce and Industry |
| UNDP | United Nations Development Programme |
| USD | United States dollar |

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# Executive Summary

The Mandalay Earthquake of March 2025 was more than a natural disaster. It was a stress test of Myanmar's economic resilience at the enterprise level. For thousands of micro, small, and medium-sized enterprises (MSMEs), the shock arrived at a moment of accumulated fragility, converting physical damage into prolonged business disruption, income loss, and heightened household vulnerability. This Executive Summary synthesises findings from the ERIA study on MSME post-disaster recovery to explain how enterprises were affected, why recovery has remained uneven and survival-oriented, and what strategic lessons emerge for strengthening enterprise recovery and resilience.

## MSMEs at the Centre of Economic Recovery and Social Stability

Post-earthquake recovery in Myanmar cannot be meaningfully understood without recognising the centrality of MSMEs to economic activity and livelihoods. As the primary source of employment and income generation in manufacturing hubs such as Mandalay and Nay Pyi Taw, MSMEs sit at the intersection of enterprise performance, household resilience, and local market stability. Their ability to withstand and recover from shocks is therefore critical not only for enterprise development, but for social cohesion and sustained economic recovery.

At the time of the earthquake, however, MSMEs were already operating under severe constraints. Elevated inflation, exchange-rate volatility, unreliable electricity supply, logistics disruptions, limited access to formal finance, and prolonged institutional uncertainty had weakened enterprise balance sheets and eroded risk-absorbing capacity. Many firms had thin financial buffers and limited scope to self-insure against shocks. The earthquake therefore struck not a resilient base, but a sector already stretched by successive macroeconomic and political stresses.

## The Earthquake as a Compound Economic Shock

The Mandalay Earthquake functioned as a compound economic shock, magnifying pre-existing fragilities rather than creating entirely new ones. Survey and interview evidence shows that MSMEs experienced overlapping physical, operational, and financial impacts. Many enterprises reported damage to buildings, machinery, and inventories, particularly home-based and small manufacturing firms where productive and residential assets overlap.

Business disruption was widespread. On average, firms experienced closures lasting more than one month. While many resumed some activity within 1–2 months, reopening was often partial. Production volumes, working hours, and sales remained well below pre-earthquake levels for a significant share of enterprises. Only a minority had fully restored operations by the time of the survey, underscoring that reopening should not be conflated with recovery.

Impacts varied systematically across firms. Location mattered: enterprises outside industrial zones faced longer and deeper disruption due to slower infrastructure restoration, higher logistics costs, and weaker institutional reach. Sector mattered: machinery-intensive and supply-chain-dependent activities, such as textiles, garments, and raw-material processing, were particularly exposed to electricity outages and transport constraints. Institutional embeddedness mattered as well. Firms that were formally registered or affiliated with business associations were better positioned to access information, coordinate with authorities, and navigate recovery processes than informal or weakly connected enterprises.

### Recovery in Practice: Survival Without Stabilisation

In the aftermath of the earthquake, MSME recovery has largely been driven by survival rather than stabilisation. Most enterprises relied on household-level coping strategies: drawing down personal savings, borrowing informally from family and friends, relying on unpaid family labour, and postponing machinery repair or investment. These mechanisms allowed firms to reopen but often locked them into low-capacity operations while transferring risk from enterprises to households.

Access to finance emerged as the most binding constraint throughout the recovery process. Although concessional recovery loan schemes were announced, few MSMEs accessed formal credit in practice. Stringent collateral requirements, documentation burdens, implementation delays, and loan terms poorly aligned with disrupted cash flows rendered formal finance largely inaccessible. Insurance coverage was extremely limited, leaving enterprises fully exposed to losses. As a result, recovery trajectories depended far more on private savings than on institutional support.

Public response after the earthquake understandably focused on humanitarian relief and public-infrastructure restoration. These interventions were essential and laid the groundwork for normalisation. However, enterprise recovery was not treated as an explicit pillar of the response. Most MSMEs received no direct financial, technical, or in-kind assistance aimed at restoring productive capacity. Donor- and association-led initiatives reached only a narrow subset of enterprises and were modest in scale. Fragmented institutional mandates and unclear coordination further reduced effectiveness.

### What the Earthquake Reveals: Structural Weaknesses, Not Temporary Gaps

The post-earthquake experience reveals systemic policy gaps rather than temporary implementation failures. Relief-oriented response models assume that enterprise recovery will follow indirectly from household assistance and infrastructure repair. Evidence from MSMEs demonstrates that this assumption does not hold. Without targeted, timely, and enterprise-specific support, firms reopen slowly, recover unevenly, and remain exposed to further shocks.

Financial systems are similarly misaligned with disaster realities. Conventional lending and risk-assessment frameworks are poorly suited to post-disaster conditions characterised by liquidity shortages, partial asset loss, and income volatility. Moreover, location, sector, and institutional engagement shape access to support, creating uneven recovery and risking the entrenchment of structural dualism within the MSME sector.

The earthquake also exposed longer-term productivity and resilience gaps, skills shortages, outdated machinery, weak supply-chain integration, and limited digital adoption, that pre-dated the disaster but were amplified by it. Recovery strategies that merely restore pre-earthquake conditions risk reinstating vulnerability rather than reducing it.

## From Relief to Recovery: A Strategic Policy Shift

This report argues for a deliberate strategic shift, from fragmented, relief-dominant responses toward an enterprise-centred recovery framework that recognises MSMEs as central actors in economic normalisation, employment protection, and long-term development. To operationalise this shift, a Three-Pillar Action Plan is proposed.

### Pillar 1: Early enterprise stabilisation emphasises speed and timing

MSMEs need support when liquidity constraints are most acute, often within weeks after a disaster. Integrating enterprise recovery into early-recovery frameworks, providing rapid working-capital support, standardising damage-and-loss assessments, and protecting micro and home-based enterprises can prevent temporary disruption from becoming permanent exit.

### Pillar 2: Institutional and financial system strengthening focuses on delivery and accessibility

Clear coordination mechanisms, unified MSME recovery protocols, and systematic engagement with business associations can reduce uncertainty and improve targeting. At the same time, Myanmar requires shock-responsive financial instruments, flexible recovery loans, credit guarantees, and simple, affordable insurance products, designed around post-disaster realities rather than normal-time risk models.

### Pillar 3: Productivity and structural resilience links recovery to long-term upgrading

Investments in skills restoration, machinery repair, digital tools, supply-chain rebuilding, and cluster-based recovery can raise productivity while reducing vulnerability to future shocks. Embedding resilience, through business continuity planning, energy reliability, and conflict-sensitive approaches, into enterprise policy is essential for sustained growth.

## The Policy Imperative

The central message for the Government is clear. MSME recovery cannot be left to households and informal networks, nor can it be assumed to emerge automatically from humanitarian assistance. Enterprises are economic actors, not residual beneficiaries. By placing MSME recovery at the centre of disaster-response and reconstruction planning, Myanmar can transform post-earthquake recovery from a reactive exercise into a foundation for resilience, employment protection, and long-term economic stability.

# Chapter 1

# Introduction

The Mandalay Earthquake of 28 March 2025, a magnitude 7.7 event centred in Sagaing Region near Mandalay, constituted one of the most destructive natural disasters Myanmar has experienced in recent decades. The earthquake caused extensive physical damage to infrastructure, residential areas, commercial centres, and productive facilities across Mandalay, the country's second-largest commercial hub, Nay Pyi Taw, the national capital, and parts of Sagaing Region. Tens of thousands of people saw their lives and livelihoods disrupted. Initial government assessments confirmed that private-sector losses, including damage to factories, workshops, and agricultural irrigation systems, exceeded Myanmar Kyat (MMK) 912 billion, equivalent to roughly 11.4 % of total recorded earthquake-related damage (National Disaster Management Committee, 2025). For a region whose economy is heavily shaped and sustained by micro, small, and medium-sized enterprises (MSMEs), the implications of this shock were both immediate and far-reaching. MSMEs underpin Mandalay's urban and peri-urban economy, supplying essential goods, sustaining local value chains, and generating employment across manufacturing, retail, and household-based production systems.

Crucially, the earthquake did not occur in isolation. It struck at a moment when Myanmar's MSMEs were already navigating an exceptionally fragile and volatile economic environment shaped by successive global, regional, and domestic shocks. The COVID-19 pandemic had first disrupted production, labour availability, and market demand, while steadily eroding enterprise balance sheets and household savings. This was followed by global supply-chain disruptions linked to the Russia–Ukraine war, which drove up input costs, constrained access to key materials, and heightened uncertainty for import-dependent manufacturing activities. Most recently, the escalation of conflicts in the Middle East has triggered a renewed oil and energy price crisis, sharply increasing fuel and electricity costs and further compounding Myanmar's long-standing power reliability and logistics constraints. These external pressures have interacted with persistent domestic challenges, including high inflation, exchange-rate volatility, limited access to finance, infrastructure deficits, and ongoing political uncertainty, pushing many MSMEs to operate with extremely narrow margins, weak liquidity buffers, and heavy reliance on informal coping mechanisms.

Against this backdrop, the Mandalay Earthquake transformed accumulated vulnerabilities into acute operational crises. When physical assets were damaged and transport and market access disrupted, many enterprises lacked the financial buffers, insurance coverage, or institutional support needed to absorb the shock. Early evidence from fieldwork and enterprise surveys pointed to widespread damage to buildings, machinery, and inventories, particularly amongst home-based and small manufacturing firms whose

productive assets are physically intertwined with household structures (National Disaster Management Committee, 2025). What emerged was not merely a short-term disruption, but a complex and uneven recovery landscape shaped by the interaction of disaster impacts, macroeconomic instability, supply-chain fragility, and conflict-related disruptions affecting logistics, labour mobility, and business confidence well beyond the immediate aftermath (AMCHAM Myanmar, 2026).

These conditions brought into sharp relief deeper systemic challenges shaping MSME recovery trajectories in Myanmar. Limited pre-shock financial buffers, low insurance penetration, fragmented institutional support, the absence of standardised damage-and-loss assessments, and delayed or inaccessible recovery finance constrained firms' ability to stabilise operations. While humanitarian relief and early infrastructure restoration were deployed relatively quickly, enterprise recovery was not explicitly integrated into early response measures (AMCHAM Myanmar, 2026). As a result, most MSMEs were forced to rely on self-financing, household savings, and informal borrowing to reopen, leading to uneven and often partial recovery marked by persistent liquidity shortages, damaged facilities, and unstable input supply chains. In this sense, the earthquake functioned less as an isolated natural disaster and more as a stress test that exposed long-standing structural weaknesses across Myanmar's MSME ecosystem.

The Myanmar MSME Post-Disaster Recovery Project was launched in response to this context and an urgent policy need: to generate rigorous empirical evidence on how MSMEs experienced the disaster, what impeded or enabled their recovery, and which support mechanisms proved effective, or insufficient, in restoring economic activity. The study's objectives follow directly from this need. First, it documents the nature and magnitude of the earthquake's impacts on MSMEs in Mandalay and Nay Pyi Taw, including effects on physical assets, business operations, labour, access to finance, and market linkages. Second, it assesses short- and medium-term recovery outcomes, measuring not only whether businesses reopened but also the depth and quality of their operational recovery. Third, it investigates the constraints that slowed recovery, including financing gaps, supply-chain disruptions, logistical challenges, labour shortages, regulatory uncertainty, and limitations in digital capacity. Fourth, it evaluates the effectiveness of recovery measures implemented to date, examining both government and donor-supported interventions such as grants, concessional loans, tax relief, utility waivers, and business advisory services. Finally, the study translates these findings into actionable policy recommendations to support more coherent, timely, and targeted recovery strategies by government agencies, development partners, and business associations.

To achieve these objectives, the study focuses on the manufacturing sector, which encompasses key business functions including procurement, supply-chain management, production, sales, storage, and finance. Given its central role within the MSME ecosystem and its exposure to supply-chain, energy, and logistics shocks, manufacturing provides a representative lens through which to examine disaster impacts and recovery dynamics

affecting MSMEs more broadly.

The geographic scope reflects both the scale of the disaster and the concentration of MSMEs in the most affected areas. Fieldwork covers seven townships in Mandalay City, Aung Myay Tharzan, Chan Aye Tharzan, Mahar Aung Myay, Chan Mya Tharzi, Pyi Gyi Dagon, Amarapura, and Patheingyi, which together host more than 4,000 manufacturing enterprises. The study also includes MSMEs in the Nay Pyi Taw Council Area, which, while less severely affected, provides an important comparative perspective on enterprise exposure and recovery capacity across regions. A mixed-methods research design combines 270 structured MSME surveys with 21 key informant interviews involving business associations, industrial-zone committees, and large firms, enabling triangulation between enterprise-level experiences and sector-wide insights.

This report is organised as follows. The next chapter situates the Mandalay Earthquake within the broader literature on disaster risk, socio-economic disruption, and enterprise resilience, drawing on regional and theoretical perspectives on MSME recovery. Chapter 3 presents the research framework and methodology, detailing the mixed-methods approach, sampling strategy, survey instruments, and analytical techniques. Chapters 4 and 5 present empirical findings from key informant interviews and the MSME survey, examining impacts on assets, operations, labour, supply chains, and access to finance, as well as variation in recovery experiences across firm sizes and locations. Chapter 6 synthesises these findings to analyse recovery trajectories and the structural and institutional factors shaping them. The final chapter distils the analysis into policy-relevant recommendations aimed at strengthening post-disaster MSME recovery, improving institutional coordination, and enhancing enterprise resilience to future shocks.

Together, this study and report aim not only to document the consequences of a major disaster, but also to provide a foundation for rethinking how Myanmar supports its MSMEs before, during, and after crises. By situating recovery within a wider development and resilience framework shaped by ongoing global, regional, and domestic shocks, the report contributes to policy discussions that can help ensure future crises do not merely expose systemic weaknesses, but instead catalyse institutional reform and stronger, more resilient enterprise systems.

# Chapter 2

# Earthquakes, Socio-Economic Disruption, and Business Resilience

Earthquakes are amongst the most disruptive natural hazards worldwide, capable of generating profound and long-lasting socio-economic consequences that extend far beyond immediate physical destruction. Their impacts are shaped not only by the magnitude of ground shaking, but also by the vulnerability of communities, the resilience of economic systems, and the capacity of institutions to manage shocks and support recovery. For countries such as Myanmar, where rapid urbanisation, concentrated economic activity, and widespread exposure to natural hazards converge, the consequences of a major earthquake reverberate through households, firms, and markets, often compounding pre-existing vulnerabilities. This chapter examines the global and regional context of earthquake risk, the socio-economic impacts of seismic disasters, and the theoretical foundations of resilience and recovery, before situating these insights within the specific case of the 2025 Mandalay Earthquake. Through this lens, it highlights the critical importance of integrating disaster-risk considerations into economic planning, strengthening the resilience of MSMEs, and supporting inclusive recovery pathways in disaster-prone settings.

## 1. Disaster Risk Management and MSME Perspectives

Globally, disaster risk is increasingly understood as the outcome of the interaction between hazards, exposure, and vulnerability, rather than the hazard itself. Contemporary disaster risk management (DRM) frameworks emphasise that economic losses are driven not only by the frequency and intensity of natural hazards, but also by the concentration of people and assets, the quality of infrastructure, and the capacity of institutions and firms to prepare for, absorb, and recover from shocks (ESCAP, APDC, R3DY, 2015). This shift in thinking has moved policy approaches away from ex post emergency response toward risk reduction, preparedness, and resilience-building as integral components of development planning.

The Sendai Framework for Disaster Risk Reduction (2015–2030) provides the principal global policy framework for disaster risk reduction, prioritising: (i) understanding disaster risk, (ii) strengthening disaster risk governance, (iii) investing in disaster risk reduction for resilience, and (iv) enhancing preparedness for effective response and 'build back better' in recovery (United Nations, 2015). Within this framework, the private sector, particularly MSMEs, is recognised as both highly vulnerable to disasters and critical to economic recovery, employment stability, and community resilience. Business continuity, access to finance, and institutional coordination are therefore central to effective post-disaster

recovery.

From an economic theory perspective, disasters are viewed as negative supply and demand shocks that disrupt production, destroy capital, displace labour, and reduce household income. For firms, especially MSMEs, disasters can trigger liquidity constraints, supply chain breakdowns, and market access disruptions, often which can lead to prolonged closures or permanent exit (ESCAP, ADPC, and R3ADY, 2015).

Asia and the Pacific is the world's most disaster-prone region, consistently experiencing a disproportionate share of global disaster-related economic losses. Rapid urbanisation, the concentration of industries, and the growing impacts of climate change have heightened exposure, especially in secondary cities and major industrial hubs. Evidence from across the region shows that MSMEs are hit particularly hard, as they often operate with limited financial reserves, high levels of informality, and strong dependence on physical infrastructure (ESCAP, 2023a).

In response, governments and development partners across the Association of Southeast Asian Nations (ASEAN) have increasingly integrated DRM into private-sector development, MSME finance, and industrial policies (ASEAN Socio-Cultural Community (ASCC), 2025). This includes expanding emergency liquidity facilities, strengthening credit guarantee mechanisms, introducing disaster insurance solutions, and supporting business continuity planning to help enterprises prepare for and recover from disruptions.

Recent regional trends highlight the expanding role of digitalisation in strengthening business resilience. Digital payments, e-commerce platforms, remote service delivery, and data-driven supply-chain tools have allowed many firms to maintain operations during the immediate impact of disasters and throughout recovery phases (APEC, 2025). These technologies have been particularly important for MSMEs, helping them adapt to disruptions and access new markets, especially when physical operations are constrained.

At the same time, uneven access to digital infrastructure, financial technology, and digital skills is widening the divide between better-connected firms and smaller or informal enterprises that face persistent barriers to adoption (Rillo, 2022). As a result, promoting inclusive digital adoption, through improvements in connectivity, digital literacy, and supportive regulatory frameworks, is becoming a core priority in post-disaster recovery strategies across the region.

Global and regional experience underscores that disaster resilience is not solely a humanitarian or environmental issue but a core economic and private-sector development challenge. Integrating disaster risk considerations into MSME policy, financial systems, infrastructure investment, and local economic development is increasingly recognised as essential for reducing economic losses, protecting jobs, and sustaining long-term growth in disaster-prone contexts.

## 2. Socio-Economic Impacts of Earthquakes

Earthquake disasters have deep and wide-ranging socio-economic impacts. They generate substantial direct economic losses through the destruction of housing, public infrastructure, and productive assets, and impose indirect losses arising from prolonged business interruptions and weakened trade performance. These shocks also produce serious social consequences, including increases in poverty, unemployment, and inequality, particularly in regions with high pre-existing vulnerabilities (Aksoy et al., 2024).

Lower-income households tend to be disproportionately affected, experiencing more severe psychological distress and slower recovery trajectories due to pre-existing inequalities, fragile livelihoods, insufficient social safety nets, and disruptions to critical services and infrastructure (Tatsuki and Kawami, 2023). Communities dependent on agriculture or informal employment often face even greater challenges, as the loss of land, tools, or market access can undermine both short-term survival and long-term economic recovery.

Earthquakes tend to produce more severe human consequences in low-income countries. Shrestha found that the 2015 Kathmandu Earthquake in Nepal caused exceptionally widespread damage, with severe impacts on housing, livelihoods, and local socio-economic conditions. The earthquakes also triggered environmental effects such as dry landslides and disruptions to wildlife habitats, which in turn increased incidents of wild animals encroaching on human settlements (Shrestha, 2021). These findings reinforce the pattern of disproportionate social impacts in less developed regions.

Evidence from middle-income contexts further underscores that post-earthquake recovery is not only shaped by the magnitude of physical damage, but also by the quality of disaster management and planning. Mavroulis and others analyse post-earthquake recovery following the February 2023 earthquakes in Southeastern Türkiye, finding that rapid reconstruction efforts were accompanied by significant shortcomings in debris management (Mavroulis, et al., 2023). Post-event surveys revealed that many debris disposal sites were located near densely populated urban areas or close to surface water bodies, posing longer-term environmental and public health risks. The study highlights the importance of integrating environmental safeguards and institutional coordination into post-disaster recovery planning.

The evidence demonstrates that post-earthquake recovery outcomes are influenced not only by the scale and pace of physical reconstruction but also by institutional capacity, financial mechanisms, and the level of preparedness in place before the earthquake. Although affected countries and communities often make substantial progress in restoring public infrastructure, such as utilities, transportation networks, and housing, recovery trajectories remain uneven across sectors. More broadly, weaknesses in disaster preparedness, early coordination challenges, and insufficient attention to livelihood recovery constrained the inclusiveness of reconstruction efforts, despite significant

international assistance and positive macroeconomic spillovers. Taken together, these findings highlight the critical importance of integrating livelihood restoration, financial protection measures, and strengthened institutional preparedness into post-disaster recovery frameworks to ensure more equitable and resilient outcomes (Government of Nepal, 2021).

## 3. Resilience Theory and Post-Disaster Recovery

The shock response recovery framework is grounded in resilience theory, which conceptualises resilience as the capacity of social, economic, and institutional systems to absorb shocks, adapt to changing conditions, and recover without incurring long-term adverse development outcomes. Resilience is understood as a dynamic process rather than a fixed state, shaped by the interaction between exposure to shocks, underlying vulnerabilities, and system capacities. Contemporary resilience literature emphasises that shocks such as earthquakes should be analysed within a broader risk landscape, where short-term disruptions interact with longer-term stressors, producing heterogeneous recovery trajectories across sectors, locations, and population groups (Frankenberger, et al., 2012).

Conceptual advances in resilience measurement highlight the importance of distinguishing between shocks, defined as sudden and external disturbances, and stressors, understood as longer-term pressures that systematically erode system stability. Effective recovery analysis therefore requires a system-based approach that captures both immediate impacts and cumulative effects over time, as well as linkages across scales. Empirical frameworks stress that recovery outcomes depend not only on the severity and duration of the shock, but also on pre-shock conditions and the ability of systems to mobilise absorptive, adaptive, and transformative capacities during the response and recovery phases (Prado Rivera and Ubels, 2022).

Within resilience theory, three core capacities provide a structured framework for specifying levels of ambition in recovery and resilience-building efforts. Absorptive capacity refers to the ability to cope with and recover from known shocks while maintaining core functions. Adaptive capacity involves incremental adjustments that enhance flexibility and allow systems to respond to evolving risks and uncertainties. Transformative capacity represents the ability to enact bigger structural change when existing system configurations become untenable. These capacities are complementary rather than sequential, and resilience pathways may involve persistence, adaptation, or transformation depending on context. Together, the shock–response–recovery framework and resilience theory provide a coherent analytical foundation for understanding why similar shocks can generate divergent recovery outcomes, and for assessing post-disaster recovery processes in a structured and comparable manner (Datta and Mahjabeen, 2016). When applied to MSMEs, this framework helps explain why enterprises exposed to similar physical shocks may experience different recovery trajectories,

reflecting variations in financial buffers, market access, institutional support, and adaptive capabilities.

## 4. Economic Outlook

Myanmar's economic conditions had already deteriorated markedly in 2024, well before the Mandalay Earthquake, reflecting the compounding effects of the COVID-19 pandemic and intensified armed conflict. The level and geographic spread of the domestic conflict remained high, disrupting production, trade, and logistics, restricting access to large parts of the country, and displacing an estimated 3.5 million people, thereby undermining livelihoods and weakening domestic demand (World Bank, 2024b).

These pandemic and conflict-related disruptions were compounded by Typhoon Yagi and associated monsoon flooding in September 2024, which affected an additional 2.4 million people across 192 townships, damaged roughly one-fifth of built structures, flooded about 3.5% of cropland, and caused widespread damage to transport, energy, and telecommunications infrastructure (World Bank, 2024b). As a result, economic activity weakened across all major sectors. Agriculture was particularly hard hit by flood-related crop losses, shortages of key inputs such as fertiliser and seeds, and insecurity along supply chains, leading to declining output and rising food insecurity. Manufacturing activity also deteriorated, with persistent electricity shortages, import restrictions, and disruptions to the availability of imported raw materials contributing to contraction, while the service sector, including wholesale and retail, transport, and tourism, was adversely affected by weak household purchasing power, insecurity, and reduced mobility.

Myanmar entered 2025 with an economy already under acute strain, characterised by weak growth, currency depreciation, high inflation, constrained fiscal space, and deep structural vulnerabilities, leaving it highly exposed to additional shocks even before the March 2025 Earthquake. The selected macroeconomic indicators in Table 2.1 indicate a period of pronounced volatility from FY2019/20 to the projected Fiscal 2026–2027, reflecting the combined effects of the COVID-19 pandemic, political instability, and post-earthquake shocks.

Table 2.1: Selected Macroeconomic Indicators and Medium-Term Outlook

| Indicator | 2019–20 | 2020–21 | 2021–22 | 2022–23 | 2023–24 | 2024–25 | 2025–26F |
|---|---|---|---|---|---|---|---|
| Real GDP growth, at constant factor prices | 3.2 | -5.9 | 2.4 | 3.4 | 3.5 | 2.9 | 3.0 |
| Agriculture | 1.6 | 1.0 | 3.3 | 2.8 | 3.7 | 1.4 | 1.8 |
| Industry | 3.8 | -9.6 | 0.9 | 1.7 | 2.0 | 2.2 | 4.1 |
| Services | 8.7 | -6.3 | 3.3 | 5.2 | 4.7 | 4.4 | 2.8 |
| CPI inflation, annual change (%) | 5.3 | 3.5 | 14.6 | 24.5 | 27.4 | 29.7 | 22.0 |
| Trade balance (% of GDP) | -5.7 | -2.4 | -2.4 | -5.5 | -3.9 | 1.2 | -2.2 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Current account balance (% of GDP) | -1.8 | 0.1 | -2.4 | -3.8 | -2.9 | 3.2 | 0.4 |
| Fiscal balance (% of GDP) | -6.4 | -7.6 | -2.2 | -2.8 | -2.8 | -4.1 | -4.9 |
| Revenue (% of GDP) | 22.7 | 16.3 | 16.5 | 21.3 | 19.9 | 23.1 | 22.3 |
| Expenditure (% of GDP) | 29 | 23.9 | 18.7 | 24.1 | 22.7 | 27.2 | 27.2 |
| Public debt (% of GDP) | 42.2 | 54.0 | 54.2 | 58.8 | 62.2 | 62.4 | 62.5 |

*Note*: Myanmar follows an April-March fiscal year; e.g. FY2024/25 denotes the current year ending March 2025.
Source: Statistical Yearbook 2024 and 2025, CSO and World Bank (2025) Myanmar Economic Monitor: Surviving, Not Thriving, December 2025, p.43.

The selected macroeconomic indicators in Table 2.1 reveal a period of significant economic disruption followed by a gradual and uneven recovery between FY2019/20 and the projected FY2025/26. These trends reflect the compounded effects of the COVID-19 pandemic, domestic political instability, and subsequent macroeconomic adjustments, which together have shaped output growth dynamics, inflationary pressures, and fiscal and external balances.

The first phase corresponds to the COVID-19 shock during FY2020/21. Real GDP growth declined sharply from 3.2% in FY2019/20 to –5.9% in FY2020/21, reflecting a severe contraction in economic activity. This downturn was driven primarily by the industrial and services sectors, which contracted by 9.6% and 6.3%, respectively. Agriculture proved more resilient during this period, maintaining modest positive growth despite widespread disruptions. The macroeconomic shock was accompanied by a deterioration in fiscal balances, with public debt rising from 42.2% of GDP in FY2019/20 to 54.0% in FY2020/21, reflecting declining revenues and increased fiscal pressures associated with the economic slowdown.

The second phase reflects a gradual recovery following the initial shock. Real GDP growth returned to positive territory in FY2021/22 and continued to expand at a moderate pace through FY2022/23 and FY2023/24, reaching 3.4% and 3.5%, respectively. The recovery was led primarily by the services sector, which rebounded to above 5.2% growth in FY2022/23, while agriculture and industry posted slower but steady improvements. However, this rebound occurred alongside intensifying inflationary pressures. CPI inflation rose sharply from 3.5% in FY2020/21 to 14.6% in FY2021/22 and continued to accelerate to over 24.5% in FY2022/23 and 27.4% in FY2023/24, reflecting exchange-rate depreciation, persistent supply disruptions, and rising import costs.

The third phase reflects continued macroeconomic adjustment in the more recent period. Real GDP growth remained moderate at around 2.9% in FY2024/25 and is projected to reach approximately 3.0% in FY2025/26. Growth in agriculture slowed during this period, while industry exhibited stronger expansion, with industrial output projected to grow by 4.1 %. Inflation remained elevated, peaking at nearly 30% in FY2024/25 before easing to

around 22% in FY2025/26 as price pressures gradually moderated. External balances showed a temporary improvement, with the trade balance shifting to a surplus of 1.2% of GDP in FY2024/25 before returning to deficit, while the current account followed a similar trajectory.

Fiscal indicators point to continued structural pressure on public finances. Fiscal deficits persist throughout the period, reaching 4.9 % of GDP in FY2025/26. Although government revenue shows some recovery after FY2021/22, expenditure remains elevated, sustaining pressure on fiscal balances. As a result, public debt continues to rise gradually, reaching approximately 62.5 % of GDP by FY2025/26.

Overall, the macroeconomic indicators suggest that while economic growth has resumed following the pandemic shock, the recovery remains moderate and constrained by elevated inflation, persistent fiscal deficits, and rising public debt. These structural pressures are likely to continue shaping the medium-term economic outlook and influencing both the pace and durability of economic stabilisation.

## 5. The Business Sector

Myanmar's business sector is concentrated in trading (wholesale and retail), small-scale manufacturing, including food processing, textiles, garments, and construction materials, and services such as transport and hospitality, alongside agriculture-related activities, with MSMEs dominating activity across all major sectors (ESCAP and Mekong Institute, 2015). The economy is characterised by a highly fragmented enterprise structure, composed overwhelmingly of MSMEs, supplemented by a relatively small number of large firms and a substantial informal sector. MSMEs account for approximately 99% or more of all private enterprises, underscoring their central role in domestic production (World Bank, 2024b; Ministry of Information, 2025a). In employment terms, the private sector, driven largely by MSMEs, absorbs most non-agricultural labour, with MSMEs contributing an estimated two-thirds to three-quarters of employment in line with regional patterns, particularly in manufacturing, retail trade, transport, and services (World Bank, 2023-2025). Employment within micro and small firms is marked by high informality, reliance on family and casual labour, and limited access to social protection, conditions that heighten household vulnerability during periods of economic stress or external shocks.

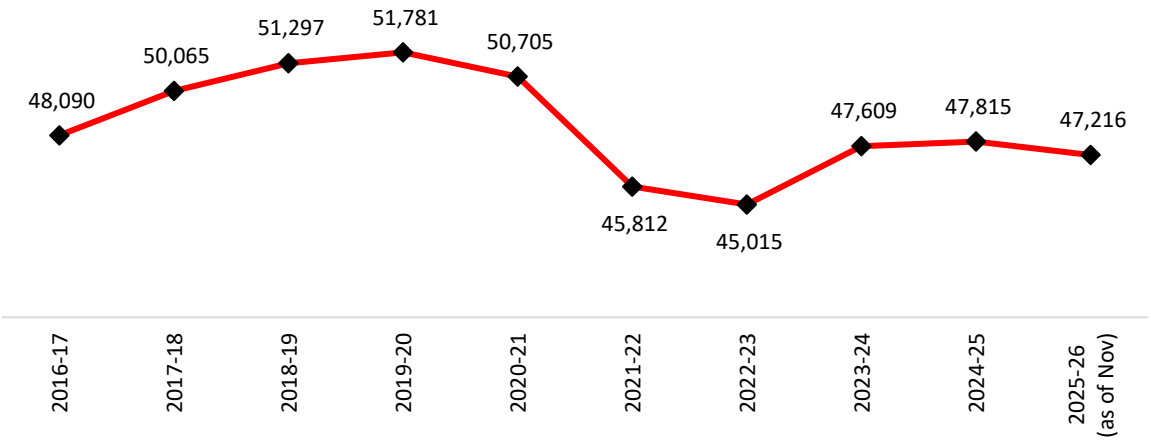
Despite their dominance in enterprise numbers and employment, MSMEs contribute a relatively smaller share of aggregate output. Widely cited estimates suggest that MSMEs account for around one-third of Myanmar's GDP**,** a figure that remains modest relative to their employment footprint. [1] This gap reflects persistent productivity constraints, including limited access to finance, low capital intensity, outdated technology, and weak

[1] Ministry of Planning and Finance; Ministry of Information; cited in national policy briefs and economic monitoring reports.

integration into higher-value domestic and regional value chains. As highlighted in the World Bank Group's *Myanmar Economic Monitor*, productivity dispersion between small and large firms remains significant, constraining overall private-sector efficiency and growth potential (World Bank, 2024b).

Figure 2.1 describes the 10-year trend of registered private manufacturing enterprises in Myanmar. The number of registered private manufacturing enterprises increased steadily from 2016–17 to a peak in 2019–20, reflecting a period of relative economic stability and expansion, with growing business formalisation and investment in the manufacturing sector. This upward trend reversed sharply in 2021–22 and 2022–23, indicating the combined impacts of COVID-19, political instability, and deteriorating business confidence, which led to enterprise closures and reduced new registrations. From 2023–24 onward, registrations showed a partial recovery, suggesting gradual adjustment and resilience within the manufacturing sector; however, the levelling off and slight decline by 2025–26 (as of November 2026) indicate that structural constraints and ongoing shocks continue to limit sustained industrial growth.

Figure 2.1: 10-year Trend of Registered Private Manufacturing Enterprises in Myanmar




Source: Ministry of Industry (2025).

Large enterprises, while limited in number, play a disproportionate role in output, exports, and formal employment. According to the Ministry of Industry (MOI) data, Myanmar has 47,216 registered private manufacturing enterprises as of November 2025, of which large firms account for less than one-quarter yet employ a substantial share of the industrial workforce, nearly one million workers nationwide (Ministry of Industry, 2025b). These firms are geographically concentrated in Yangon and Mandalay Regions, benefiting from better infrastructure, access to finance, and market connectivity (see Table 2.2). This concentration, however, also creates systemic exposure to natural disasters, as localised shocks in major industrial hubs can generate economy-wide spillovers.

Table 2.2: Registered Private Manufacturing Enterprises in Myanmar, as of Nov. 2025

| No. | States and regions | Large | Medium | Small | Total | Share (%) | Employee (number) |
|---|---|---|---|---|---|---|---|
| 1 | Kachin | 135 | 236 | 1,517 | 1,888 | 4.00% | 9,569 |
| 2 | Kayah | 43 | 203 | 43 | 289 | 0.61% | 1,653 |
| 3 | Kayin | 165 | 304 | 729 | 1,198 | 2.54% | 9,532 |
| 4 | Chin | 9 | 75 | 646 | 730 | 1.55% | 2,092 |
| 5 | Sagaing | 579 | 1,292 | 2,339 | 4,210 | 8.92% | 33,325 |
| 6 | Tanintharyi | 327 | 245 | 1,107 | 1,679 | 3.56% | 13,093 |
| 7 | Bago | 862 | 1,105 | 2,098 | 4,065 | 8.61% | 78,045 |
| 8 | Magway | 280 | 943 | 2,081 | 3,304 | 7.00% | 19,147 |
| 9 | Mandalay | 1,729 | 3,092 | 2,167 | 6,988 | 14.80% | 88,945 |
| 10 | Mon | 305 | 517 | 1,672 | 2,494 | 5.28% | 19,117 |
| 11 | Rakhine | 83 | 117 | 512 | 712 | 1.51% | 5,657 |
| 12 | Yangon | 3,968 | 3,088 | 1,276 | 8,332 | 17.65% | 610,533 |
| 13 | Shan | 497 | 1,377 | 2,691 | 4,565 | 9.67% | 33,282 |
| 14 | Ayeyarwady | 1,417 | 893 | 3,655 | 5,965 | 12.63% | 58,025 |
| 15 | Nay Pyi Taw | 348 | 253 | 196 | 797 | 1.69% | 9,518 |
| | Total | 10,747 | 13,740 | 22,729 | 47,216 | 100.00% | 991,533 |

Source: Ministry of Industry (2025).

The informal business sector constitutes a critical but under-measured component of Myanmar's economy. Informal enterprises, predominantly micro and household-based, provide essential livelihood support, particularly for low-income households. However, they operate outside formal regulatory, financial, and social protection systems, making them the most vulnerable segment of the business sector during periods of economic stress and disaster-related disruptions (ESCAP and Mekong Institute, 2015).

The composition of Myanmar's business sector, characterised by the dominance of MSMEs, a narrow base of large enterprises, and widespread informality, has important implications for growth, employment, and resilience. Strengthening productivity, improving access to finance, supporting formalisation, and integrating disaster risk considerations into private sector development policies are therefore central to sustaining economic recovery and reducing vulnerability to future shocks (Abe and Dutta, 2014).

The classification of micro, small, and medium-sized enterprises (MSMEs) in Myanmar is determined using two primary criteria: the number of permanent employees and annual turnover measured in MMK. These criteria vary by business sector. In accordance with the Small and Medium-Sized Enterprises (SME) Development Law (2015) and the definitions applied by the Central Statistical Organization (CSO), MSMEs are classified differently across the manufacturing, trading, and service sectors. The official thresholds used to identify MSMEs are presented in Table 2.3. It is important to note that legal and tax requirements differ between small and medium-sized enterprises, with small enterprises often receiving preferential treatment under existing regulations (ASEAN, 2026).

Table 2.3: Myanmar MSME Definition by Sector

| Size | Sector | Employee count (permanent) | Annual turnover (Kyat million) |
|---|---|---|---|
| Micro | Manufacturing, trading, services | Up to 9 | Up to 10 |
| Small | Manufacturing | 10-49 | 11-100 |
| Small | Trading, services | 10-30 | 11-100 |
| Medium | Manufacturing | 50-300 | 101-300 |
| Medium | Trading, services | 31-60 | 101-300 |

Sources: SME Development Law (2015); CSO MSME Surveys (2017; 2019).

## 6. Business Environment

The evolution of Myanmar's business environment since the early 2010s is best understood as a two-phase trajectory: an initial reform-driven opening that raised expectations for market-oriented growth, followed by a sharp post-2021 reversal that has rendered operating conditions volatile, fragmented, and risk-laden. The reform era began with a policy agenda that emphasised macroeconomic stabilisation, movement toward a managed-float exchange rate, trade and investment liberalisation, and a recalibration of the state's economic role after decades of isolation (Lim and Yamada, 2012). These steps, paired with the partial easing of Western sanctions and renewed international engagement, briefly positioned Myanmar as a 'frontier market' in Southeast Asia, though even contemporaneous observers flagged governance and capacity gaps as binding risks (Than, 2014).

A critical empirical anchor for this period is the ESCAP–Mekong Institute Myanmar Business Survey (MBS), a nationwide enterprise survey of over 5,000 firms conducted with the Organisation for Economic Co-operation and Development (OECD) and the Union of Myanmar Federation of Chambers of Commerce and Industry (UMFCCI). The MBS documented how firms themselves experienced the reform moment: they reported corruption, skills shortages, technology gaps, and access to land as pervasive constraints; access to finance was especially severe for MSMEs; and infrastructure deficits, notably electricity and water, were more acute in specific regions (Than, 2014). A companion summary highlights how fragmented permissions across line ministries fostered informality and widespread dissatisfaction with the business environment, underscoring the need for coordinated regulatory streamlining. In short, while macro reforms were significant, the micro-foundations of a healthy business ecosystem, predictable rules, credible enforcement, and access to inputs, remained thin.

Strategically, leading policy analyses converged on the importance of sequencing. An ADB/Mekong Institute working paper argued that Myanmar needed a carefully staged transition from resource dependence toward export-oriented manufacturing with strong employment multipliers; the paper warned that premature financial liberalisation and policy incoherence would squander early gains (Findlay, Park, and Verbiest, 2015). IDE-JETRO research added that macro stabilisation, price-system reform, privatisation,

and capability building were prerequisites for a durable move to market mechanisms (Lim and Yamada).

By the late 2010s, the World Bank's *Myanmar Economic Monitor* captured both momentum and fragility. In mid-2019, the Bank projected growth of 6.5–6.7%, underpinned by easing exchange-rate and price volatility and reforms opening the insurance and banking sectors to foreign participation (World Bank, 2019a). But the same reports flagged persistent bottlenecks, electricity shortages, logistics gaps, and low firm productivity, and warned that conflict in border areas and Rakhine continued to weigh on investor sentiment (World Bank, 2019b). Complementing this macro view, an input–output analysis shows that 2010–2015 growth leaned heavily on public administration and domestic demand rather than a broad-based expansion of export-oriented manufacturing, indicating shallow industrial depth despite headline expansion (Thein, Niigata, and Inaba, 2023). Read against the ESCAP–Mekong Institute MBS, these findings suggest that the reform decade raised the ceiling for private activity but did not yet deliver the institutional thickness required for sustained, productivity-driven growth (ESCAP and Mekong Institute, 2015).

The February 2021 military coup created a structural break. Investment-climate reporting cites a real GDP contraction exceeding 20% between 2020 and 2024, widespread suspension or exit by foreign firms, and pervasive operational disruptions as conflict escalated (U.S. Department of State, 2025). A UNDP assessment summarised characterises the economy as in 'polycrisis,' with cumulative GDP losses of roughly 9% since 2020, inflation near 25% in 2024, and sharp kyat depreciation: developments fundamentally incompatible with stable business planning and capital formation (Mishra, 2025).

Policy responses after the coup intensified firm-level constraints. Authorities imposed forced foreign-exchange conversion and onerous import licensing, alongside shifting trade and capital controls that curtailed firms' abilities to secure inputs and repatriate profits (U.S. Department of State, 2025). Firms also faced chronic power shortages, pushing reliance on costly diesel generation, and episodic internet shutdowns that disrupted logistics and payments, especially in conflict-affected areas (U.S. Department of State, 2025). World Bank monitoring in 2023–2024 detailed continued exchange-rate depreciation, tight import licensing, worsening electricity outages, and labour shortages, the latter exacerbated by the 2024 conscription announcement and out-migration, together constraining production and trade (World Bank, 2023 and 2024b).

Financial isolation has magnified these pressures. Myanmar's FATF blacklist status has narrowed access to formal banking and pushed transactions into informal channels, while illicit activities, opium and synthetic drugs, jade extraction, and border-area scam centres, have expanded, elevating legal and reputational risk and siphoning resources from productive sectors (Mishra, 2025). Territorial fragmentation adds a further layer of

uncertainty. Country-risk services estimate the junta controls only 30–40% of national territory, producing overlapping tax and permit regimes and route insecurity that raise logistics costs; as a result, growth is forecast to remain below ~2% annually through 2028, far below the 6–7% typical of the 2010s (Economist Intelligence Unit (EIU), 2024/2025).

At the firm level, adaptation has centred on short-cycle resilience rather than long-horizon growth. Practitioner accounts describe multi-currency settlements (e.g. RMB/THB/INR where permitted), border-trade routing via Thailand and China, and, in some cases, offshore incorporation to preserve access to banking and payments (Thandar, 2025). Yet the World Bank's *2024 Myanmar Economic Monitor December* is clear: these coping strategies cannot substitute for predictable rules, reliable electricity, and a functioning financial system; absent improvements in security and economic governance, the near-term outlook for investment and productivity remains weak (World Bank, 2024a).

It is precisely here that the ESCAP–Mekong Institute MBS is analytically invaluable. The survey offered a baseline inventory of the micro-constraints, integrity in public administration, MSME finance, workforce skills, land governance, and uneven infrastructure, that needed to be addressed to convert macro liberalisation into firm-level productivity and investment (ESCAP and Mekong Institute, 2015). Those constraints, acute even in a comparatively benign reform context, have only intensified in the post-coup environment. ESCAP's regional reporting also underscores the opportunity cost: across Asia and the Pacific, co-operation on connectivity, logistics, and resilience continues to advance, but Myanmar's ability to capture corridor-related spillovers is sharply curtailed by domestic instability and policy uncertainty (ESCAP, 2023b).

Two policy lessons therefore stand out. First, sequencing and credibility remain decisive. The ADB/Mekong Institute strategy argued that liberalisation should proceed in stages, stabilise the macroeconomy; strengthen administrative capacity and financial supervision; and then open further while investing in infrastructure, skills, and export-oriented manufacturing (Findlay, Park and Verbiest, 2015). Second, micro-constraints are binding. The MBS' firm-level evidence demonstrates that anti-corruption, MSME finance, human-capital development, land and titling reforms, and basic infrastructure are necessary conditions for sustained private-sector growth (ESCAP and Mekong Institute, 2015). Without a restoration of rule-bound governance and a return to sequenced, credible reform, aimed squarely at these firm-level constraints, Myanmar's business environment will remain high-variance, with entrepreneurial ingenuity compensating for, but never replacing, robust institutions (World Bank, 2023).

**Box 1. Global and Macroeconomic Stress as a Backdrop to Disaster: How Successive Shocks Shaped MSME Vulnerability in Myanmar**

At the time of the Mandalay Earthquake in March 2025, Myanmar's MSMEs were operating within an unusually fragile and volatile economic environment shaped by successive global, regional, and domestic shocks. Rather than entering the disaster period with accumulated resilience, many enterprises faced depleted buffers, constrained liquidity, and limited access to formal risk-management instruments.

The COVID-19 pandemic marked the first major rupture, disrupting production, labour availability, and market demand while steadily eroding enterprise balance sheets and household savings. Although economic activity resumed gradually, recovery remained shallow, forcing many MSMEs to prioritise short-term survival over investment, upgrading, or preparedness. As pandemic pressures persisted, global supply-chain disruptions linked to the Russia–Ukraine war further intensified vulnerability. Rising international prices for fuel, fertiliser, and industrial inputs, alongside logistical bottlenecks and shipping delays, increased operating costs and uncertainty, particularly for import-dependent manufacturing activities such as textiles, garments, food processing, and light engineering.

Most recently, renewed geopolitical tensions and conflicts in the Middle East triggered sharp volatility in global oil and energy markets. For Myanmar's MSMEs, this translated directly into higher fuel and electricity costs at a time when power supply was already unreliable. Increased transport expenses, generator use, and logistics costs further compressed margins, disproportionately affecting enterprises located outside industrial zones and those lacking access to alternative energy solutions. These external shocks also reinforced inflationary pressures, weakening consumer demand and complicating business planning.

These global pressures interacted with persistent domestic structural constraints, including high inflation, exchange-rate volatility, limited access to affordable credit, weak insurance penetration, infrastructure deficits, and institutional uncertainty, to produce cumulative fragility. Many MSMEs entered 2025 in a state of fragile equilibrium: operational but financially stretched, adaptive but exposed. Few enterprises held insurance coverage, and precautionary savings were often insufficient to absorb prolonged disruption.

When the Mandalay Earthquake struck, it therefore encountered a sector already weakened by overlapping macroeconomic and global stressors. Physical damage and operational interruption rapidly translated into liquidity crises, delayed recovery, and heightened reliance on household-level coping strategies. The earthquake thus functioned not only as a natural disaster, but as a stress test that revealed the limited resilience of Myanmar's MSME ecosystem under conditions of sustained global and domestic pressure.

## 7. The Mandalay Earthquake

The Mandalay Earthquake that struck on 28 March 2025 caused significant loss of life, injuries, and extensive damage to critical infrastructure across 10 Regions and States of Myanmar. Damages and losses were concentrated primarily in the Mandalay Region, the Nay Pyi Taw Council Area, and the Sagaing Region. Thousands of households and enterprises were displaced or severely affected, including major clusters of MSMEs.

According to ground assessments, damages and losses in the public infrastructure, covering dams, roads, rails, bridges, and education, healthcare, energy, and

communications facilities, as well as religious and cultural assets and government-owned factories, workshops, and office buildings, are estimated at over MMK 4,779 billion. At the same time, the private sector assets, including housing, factories and workshops, businesses, schools, hospitals, clinics, and agricultural production, suffered losses and damages to about MMK 3,200 billion. In total, the total losses and damages of the Mandalay Earthquake are estimated to 7,979 billion (approximately USD 3.8 billion), while the World Bank estimated the damages at USD 10.97 billion (see Table 2.4) (EIU, 2024/2025; World Bank, 2025a).

Table 2.4: Earthquake Damages and Losses, Kyat Millions

| No. | States and regions | Value of losses (Kyat million – 2026) | % |
|---|---|---|---|
| 1 | Mandalay | 3,631,632 | 45.5% |
| 2 | Nay Pyi Taw Council | 3,507,271 | 44.0% |
| 3 | Sagaing | 565,955 | 7.1% |
| 4 | Bago | 138,435 | 1.7% |
| 5 | Shan State | 132,935 | 1.7% |
| 6 | Kayin | 2,250 | 0.028% |
| 7 | Magway | 592 | 0.007% |
| 8 | Yangon | 378 | 0.005% |
| 9 | Kayah | 69 | 0.001% |
| 10 | Ayeyarwaddy | 8 | 0.000% |
| | Total | 7,979,525 | |

Source: National Disaster Management Committee (2026), based on 14 Aug 2025 Myanmar Alin Myanmar Newspaper and 15 Aug 2025 at Global New Light of Myanmar English Newspaper.

Household welfare has deteriorated in the hardest-hit areas, particularly Mandalay, Sagaing, and Nay Pyi Taw. Consumption declined by about 2% nationwide, and poverty increased sharply in high-intensity earthquake zones due to asset losses, job disruptions, and reduced access to services (Van Asselt, Win, andAung, 2026).

Following the Mandalay Earthquake, economic conditions in Mandalay Region worsened as the disaster compounded existing structural weaknesses and conflict-related disruptions. Damage to productive assets, commercial premises, and infrastructure led to business closures, supply-chain disruptions, and liquidity pressures, particularly amongst MSMEs. Power outages, fuel shortages, transport constraints, and inflation further weakened demand and business activity in the immediate aftermath (UNHCR, 2025).

At the same time, early signs of adjustment and resilience emerged. Reconstruction and repair activities generated localised demand, especially in construction, building materials, trade, and services. Many businesses adapted by reopening in temporary

locations, reorganising operations, and relying on family labour and community networks. Although recovery remains uneven, these developments provide a basis for gradual economic normalisation and targeted recovery support (UNDP. 2025).

Overall, Myanmar's economy is recovering slowly but remains well below pre-earthquake and pre-pandemic levels. Structural constraints, financing gaps, conflict, and infrastructure weaknesses continue to limit recovery prospects. Without stronger and more targeted reconstruction support, economic conditions are likely to remain fragile in the near term (World Bank, 2025b).

## 8. Support for Mandalay Earthquake

In the aftermath of the Mandalay Earthquake, the government and its partners mounted a broad and multi-layered response designed to stabilise affected communities, restore essential services, and revive the regional economy. Much of the early effort focused on the individuals and households who bore the brunt of the losses. Through the National Disaster Management Fund (NDMF), authorities disbursed more than MMK 1.65 trillion for immediate relief and early recovery (World Bank, 2025b). This included large-scale emergency food assistance, cash transfers to families who lost relatives, support for the injured, and, most significantly, substantial funding for the reconstruction of damaged homes. Alongside these direct payments, an additional MMK 340 billion supported early rehabilitation interventions, while domestic and international donations of food and basic commodities were quickly transported to the hardest-hit areas (Pompa and Bissinger, 2014).

Workers also received targeted assistance. The Department of Labour distributed Social Welfare Fund payments ranging from MMK 70,000 to 120,000 per affected worker during the first phase of its programme, helping households manage immediate disruptions in income and livelihoods. As the crisis moved from emergency response to economic recovery, the authorities expanded their support to include access to finance. In October 2025, the Central Bank of Myanmar launched a major concessional loan initiative, backed by MMK 700 billion from state recovery funds and delivered through ten private banks. These loans, with interest rates set at 3-7% depending on their purpose, were intended to help families rebuild homes and enable MSMEs, as well as large factories and construction firms, to resume operations.

Attention was also directed toward restoring public functions and essential infrastructure. To ensure continuity of education and administrative services, authorities deployed hundreds of container offices and temporary housing units to ministries and affected areas. Temporary school buildings were erected as well: 20 in affected communities, and an additional 57 completed in Nay Pyi Taw Union Territory, where nearly 3,000 temporary

housing units were also installed. Ongoing construction work aimed to add even more temporary shelters and educational facilities.

The domestic private sector mobilised in parallel with the government. The Union of Myanmar Federation of Chambers of Commerce and Industry (UMFCCI) established an MMK 2 billion fund dedicated to assisting earthquake-affected communities. Working closely with the Mandalay Region Chambers of Commerce and Industry (MRCCI), the business association delivered medicines, food, and essential consumer goods to survivors. MRCCI also provided direct financial assistance, ranging from MMK 300,000 to 500,000, to support members whose homes were damaged (Ministry of Information, 2025a).

International organisations played a similarly important role. VisionFund Myanmar, the microfinance arm of World Vision, expanded affordable financial services for affected families and small businesses, offering loans tailored to emergency needs and livelihood recovery. UNDP Myanmar announced in November 2025 a dedicated support programme for MSMEs in Mandalay and Sagaing Regions. Under this initiative, small enterprises directly affected by the earthquake were eligible for financial assistance of MMK 4–10 million, with the first phase targeting 200 firms (Ministry of Information, 2025a).

A broader picture of the recovery effort emerges from the World Bank's assessment of the government's Mandalay Earthquake Recovery Programme. The authorities introduced a recovery plan valued at approximately MMK 2.8 trillion (around US$1 billion), a figure that remains far below the estimated US$11 billion in total damages calculated through the GRADE assessment. Of this amount, MMK 700 billion was set aside for concessional loans to households and businesses, while the remaining MMK 2.1 trillion was directed toward household-level support, including cash grants and construction materials (World Bank, 2025a).

International humanitarian engagement was extensive. Myanmar received more than 3,000 tons of emergency supplies, as well as over 1,000 relief workers and nearly 300 medical personnel. Twenty-six countries delivered assistance by air, sea, and land. A UN-led appeal generated US$240 million, and major donors, including the Asian Development Bank, China, the United Kingdom, the Nippon Foundation, and private sector partners such as the Yoma Group, made significant contributions (World Bank, 2025a).

Even with substantial support, economic recovery in the region has been uneven. Before the earthquake, Mandalay's economy was driven by trade, construction-related services, agro-processing, and small-scale manufacturing. Many firms managed to remain operational after the disaster, yet they faced a challenging business environment marked by weak consumer demand, rising costs, constrained working capital, and heightened security risks. MSMEs in particular relied heavily on short-term coping strategies, often drawing on family labour or informal financing to stay afloat.

By October 2025, firm-level indicators showed gradual improvement, though still below

pre-earthquake potential. Average operating capacity had risen to about 71% overall, but manufacturing continued to operate at only around 63% due to persistent power shortages, logistics disruptions, and damaged facilities (World Bank, 2025b). Agriculture demonstrated relative resilience thanks to improved vegetation, though falling global rice prices and higher input costs continued to suppress productivity. The service sector recovered unevenly: while freight and air transport showed signs of revival, tourism and retail activity remained subdued.

Taken together, the response to the Mandalay Earthquake reflects a complex and evolving effort to deliver immediate relief, restore livelihoods, and rebuild economic capacity. While significant progress has been made, largely due to coordinated government action, domestic private-sector engagement, and substantial international support, ongoing challenges underscore the scale of reconstruction that still lies ahead.

# Chapter 3

# Research Framework and Methodology

Understanding how the Mandalay Earthquake reshaped the operational landscape for MSMEs requires a research framework capable of capturing both the measurable economic effects of the disaster and the more nuanced institutional and behavioural factors shaping firms' recovery pathways. Chapter 3 therefore outlines the methodological foundation of this study, detailing the objectives, scope, sampling strategies, research instruments, and analytical approaches used to assess post-earthquake impacts on MSMEs in Mandalay and the Nay Pyi Taw Council Area. Guided by a mixed-methods design, the chapter explains how qualitative insights from business associations and large enterprises complement quantitative survey data collected from 270 manufacturing MSMEs, enabling a holistic assessment of disruptions to assets, labour, supply chains, and financial systems. It further describes the steps taken to ensure methodological rigor, from instrument development and pretesting to data collection protocols, quality assurance, and analytical techniques. Together, the components presented in this chapter provide a robust empirical foundation for interpreting recovery trajectories, identifying persistent constraints, and generating evidence-based recommendations to strengthen MSME resilience in the aftermath of the Mandalay Earthquake.

## 1. Study Objectives

This study aims to develop a comprehensive and empirically grounded understanding of how the Mandalay Earthquake has affected the performance, stability, and recovery trajectories of MSMEs. Central to this objective is documenting the nature, depth, and spatial variation of the earthquake's impacts, with particular attention to disruptions in physical assets, labour availability, supply chains, and financial systems. By examining these dimensions in detail, the study provides a holistic account of the challenges confronting MSMEs during both the immediate aftermath of the disaster and the subsequent phases of economic recovery.

In addition to describing the overall scope of the impacts, the study seeks to quantitatively assess the short- and medium-term consequences for MSME operations. This involves measuring changes in business continuity, employment levels, damage to productive assets, access to credit and liquidity, and the stability of market linkages. Through this analysis, the research captures how the disaster reshaped firms' capacity to produce, trade, and maintain income streams, while also identifying variations across sectors, firm sizes, and geographic areas.

A further objective is to identify the principal constraints that continue to hinder recovery.

These include limited access to capital, shortages of inputs, disruptions to transportation and logistics networks, labour supply constraints, weak consumer demand, regulatory bottlenecks, and uneven levels of digital readiness. Mapping these obstacles enables a clearer understanding of the structural and contextual barriers that prevent MSMEs from returning to pre-disaster performance levels.

The study also examines the effectiveness and cost-efficiency of early recovery interventions implemented by government agencies, development partners, and private-sector platforms. These interventions include grants, concessional loans, tax and utility relief measures, business development services (BDS), and initiatives aimed at restoring supply chain and market connectivity. Assessing their performance provides insights into which forms of support have delivered the greatest value, where gaps persist, and how future recovery packages can be better designed.

Understanding the post-earthquake recovery process also requires acknowledging the influence of the pre-existing business environment. Before the disaster, many MSMEs were already constrained by narrow and undiversified value chains, chronic power instability, and high logistics costs, all of which limited their operational resilience. Access to formal finance was often restricted due to stringent collateral requirements, pushing firms toward informal credit arrangements and leaving them with limited liquidity buffers. Labour markets were largely informal and seasonal, reducing opportunities for skills development and social protection. Regulatory processes were unpredictable, complicating compliance and raising operational costs. At the same time, digital adoption remained uneven, limiting firms' ability to maintain sales channels or document losses during the recovery process. Weak infrastructure and localised security risks further heightened transaction costs. These pre-existing vulnerabilities amplified the economic impacts of the earthquake and contributed to the uneven pace of recovery across firms and sectors.

Ultimately, this study moves beyond diagnosis to generate evidence-based and actionable recommendations. These recommendations aim to guide policymakers, development partners, and private-sector actors in designing targeted interventions that can accelerate MSME recovery and strengthen resilience to future shocks. By grounding these proposals in empirical analysis, the study seeks to contribute to a more inclusive, efficient, and sustainable model of post-disaster economic recovery in Myanmar.

## 2. Study Approach and Sampling Framework

This study employs a mixed-methods research design to examine the impacts of the March 2025 Mandalay Earthquake on MSMEs and to analyse their evolving recovery pathways in both Mandalay and the Nay Pyi Taw Council Area (Creswell and Clark, 2017). The approach integrates qualitative evidence from Key Informant Interviews (KIIs) with quantitative data collected through an enterprise-level survey, enabling the analysis to capture not only measurable economic and operational outcomes but also the contextual,

institutional, and behavioural dimensions that shape firms' recovery trajectories.

A mixed-methods approach is particularly well suited to post-disaster environments, where enterprise outcomes are influenced by more than physical damage and financial loss. Recovery is also conditioned by disruptions in supply chains and labour mobility, shifting consumer demand, regulatory and policy constraints, and heterogeneous access to formal and informal support mechanisms. Combining qualitative depth with quantitative breadth strengthens analytical rigor, supports triangulation across data sources, and provides a fuller understanding of the mechanisms driving recovery or continued vulnerability.

The study's sample population focuses on earthquake-affected manufacturing MSMEs located in Mandalay City, specifically across seven townships (Aung Myay Tharzan, Chan Aye Tharzan, Mahar Aung Myay, Chan Mya Tharzi, Pyi Gyi Dagon, Amarapura, and Pathein Gyi), as well as firms within the Nay Pyi Taw Council Area. Manufacturing enterprises were selected due to their heightened exposure to structural damage, dependence on physical capital and imported inputs, and their central role in employment generation and local supply-chain functioning. While the core quantitative survey targets MSMEs, the qualitative component also includes selected large manufacturing firms and business associations to capture broader sectoral dynamics and policy-level perspectives, thereby ensuring a more comprehensive view of the earthquake's economic implications.

## 3. Sampling Methods

This study applies a non-probability sampling strategy, combining purposive sampling and snowball sampling, to identify and recruit study participants. This approach was adopted in recognition of the post-disaster context, operational constraints, and the specific analytical objectives of the MSME Post-Disaster Recovery Survey.[2]

*Purposive sampling:* was used as the primary sampling method to deliberately select MSMEs and key informants that met clearly defined eligibility criteria. For the qualitative component, purposive sampling enabled the selection of business associations and large manufacturing firms with sector-wide knowledge, policy engagement, and strategic oversight of recovery processes, which individual MSMEs could not provide. For the quantitative survey, MSMEs were purposively selected from earthquake-affected manufacturing enterprises operating in Mandalay and Nay Pyi Taw, with explicit stratification by township and enterprise size (micro, small, and medium). This ensured

[2] For a successful example of a similar methodological approach, this study refers to ESCAP and Mekong Institute (2015), which employed a mixed-methods framework to assess the post-reform enterprise status in Myanmar. Their study demonstrated the value of combining quantitative surveys with qualitative interviews to capture both measurable business outcomes and the institutional, behavioural, and policy-related factors shaping enterprise resilience.

inclusion of firms that experienced direct or indirect earthquake impacts and were therefore relevant to the study's recovery-focused research questions.

*Snowball sampling:* was applied as a complementary method, particularly in situations where formal business listings were outdated, incomplete, or inaccessible due to post-earthquake disruptions. Initial respondents and key informants were asked to refer other eligible MSMEs and stakeholders within their networks. This method was especially important for identifying informal or partially operational enterprises, as well as firms that had temporarily relocated, downsized, or suspended operations following the earthquake but remained relevant to understanding recovery dynamics.

Random sampling was not feasible for this study due to several structural and contextual constraints. First, there is no reliable and up-to-date sampling frame of active manufacturing MSMEs in the affected areas following the earthquake, as many enterprises experienced closures, relocations, or changes in operational status. Second, access and security considerations limited the ability to reach randomly selected firms across all locations. Third, the study's focus on recovery pathways required engagement with enterprises that had demonstrable exposure to earthquake impacts, which random sampling could not guarantee. Finally, time and resource constraints typical of post-disaster assessments necessitated a flexible and adaptive sampling approach.

Overall, the combined use of purposive and snowball sampling ensured that the study captured relevant, information-rich cases across different enterprise sizes and locations (ESCAP and Mekong Institute, 2015). While not statistically representative in a probabilistic sense, this approach is methodologically appropriate for post-disaster research and supports robust, context-sensitive analysis of MSME recovery experiences and constraints.

## 4. Sample Size and Allocation

The sample size and allocation strategy for this study were designed to ensure that both sector-wide institutional perspectives and firm-level experiences were captured in a balanced and analytically robust manner. By combining Key Informant Interviews with business associations and large enterprises alongside a structured survey of manufacturing MSMEs, the study integrates insights from actors operating at different levels of the economic ecosystem. This dual-layered approach enhances the depth and validity of the analysis, enabling the research to document not only the direct operational impacts of the Mandalay Earthquake but also the broader market, governance, and coordination dynamics influencing recovery. The section that follows outlines how interview and survey samples were determined, the rationale for their geographic and sectoral distribution, and the way these allocations strengthen the study's ability to generate reliable, evidence-based findings on MSME resilience and post-disaster recovery.

*Qualitative component – 21 Key Informant Interviews*

The survey team conducted 21 Key Informant Interviews (KIIs) with business associations and large enterprises, recognising that these actors offer sector-wide perspectives that extend beyond the experiences of individual MSMEs. Their insights are essential for understanding industry-level challenges, the broader policy environment, and collective recovery needs that shape market dynamics in the post-earthquake context. By incorporating these perspectives, the study complements firm-level data with institutional viewpoints, enabling a more comprehensive assessment of constraints, opportunities, and recovery pathways.

Of the 21 KIIs, 18 were conducted in Mandalay, where the earthquake's economic disruptions were most concentrated. These interviews provided valuable information on the severity of the shock, the evolving conditions faced by affected MSMEs, the nature of ongoing support initiatives, and recommendations from relevant associations on strengthening recovery efforts. Table 3.1 summarises the distribution of KIIs participants and their institutional affiliations.

Table 3.1. Key Informant Interviews by Sector in Different Study Areas

| No. | Associations | Mandalay | Nay Pyi Taw | Total |
|---|---|---|---|---|
| 1. | Regional Chamber of Commerce and Industry (Mandalay and Nay Pyi Taw) | 1 | 1 | 2 |
| 2. | Industrial Zone Management Committee | 1 | 1 | 2 |
| 3. | Mandalay Broker Merchants Machine Owners Association (Mandalay Commodity Exchange Centre) | 1 | - | 1 |
| 4. | Business associations | 4 | 1 | 5 |
| 5. | Large manufacturing firms | 11 | - | 11 |
| | **Total** | **18** | **3** | **21** |

*Quantitative Component – 270 MSME Survey Samples*

The quantitative component of the study consists of a survey of 270 MSMEs, including 240 firms in Mandalay and 30 firms in the Nay Pyi Taw Council Area. This distribution ensures a sufficiently large and spatially relevant sample to produce robust and reliable findings, particularly given the concentration of earthquake impacts in Mandalay. The survey focuses exclusively on the manufacturing sector, reflecting its high exposure to structural damage, dependence on physical assets, and central role in local employment and supply-chain functioning.

The sample size was designed to capture the diversity of manufacturing enterprises, across subsectors, firm sizes, and ownership structures, while providing representative insights aligned with the study's research objectives. The resulting dataset supports the application of advanced statistical analysis techniques, enabling rigorous examination of earthquake impacts, recovery patterns, and determinants of enterprise resilience (Hair,

Black, Babin, and Anderson, 2010).

A stratified sampling approach was applied based on township and enterprise size (micro, small, and medium). MSME size categories follow Myanmar's SME Development Law (2015) for the manufacturing sector. Equal allocation across size categories was used to enable meaningful comparison of recovery trajectories by firm scale. This approach allows the analysis to identify differential impacts and recovery constraints faced by MSMEs. Table 3.2 presents the distribution of surveyed MSMEs by enterprise size across townships in Mandalay, reflecting the geographic concentration of manufacturing activities in the most severely affected area. Table 3.3 presents the corresponding sample allocation in Nay Pyi Taw, where equal representation across enterprise sizes was applied to support comparative analysis. Together, these allocations underpin evidence-based analysis and the formulation of practical recommendations for MSME recovery and development.

Table 3.2. Sample Allocation for MSME Survey in Post-Earthquake in Mandalay

| No. | Mandalay City (Townships) | Sample allocation | | | |
|---|---|---|---|---|---|
| | | Micro | Small | Medium | Total |
| 1 | Aung Myay Tharzan | 14 | 12 | 5 | 31 |
| 2 | Chan Aye Tharzan | 5 | 8 | 3 | 16 |
| 3 | Mahar Aung Myay | 7 | 10 | 3 | 20 |
| 4 | Chan Mya Tharzi | 5 | 8 | 3 | 16 |
| 5 | Pyi Gyi Dagon | 10 | 23 | 34 | 67 |
| 6 | Amayapura | 15 | 11 | 14 | 40 |
| 7 | Pathein Gyi | 5 | 2 | 3 | 10 |
| | Total | 80 | 80 | 80 | 240 |

Table 3.3. Sample Allocation for MSME Survey in Post-Earthquake in Nay Pyi Taw

| No. | Nay Pyi Taw (Townships) | Sample allocation | | | |
|---|---|---|---|---|---|
| | | Micro | Small | Medium | Total |
| 1 | Nay Pyi Taw Council Area | 10 | 10 | 10 | 30 |
| | Total | 10 | 10 | 10 | 30 |

## 5. Survey Instruments

The study employed a combination of qualitative and quantitative survey instruments designed to capture both the depth and breadth of the earthquake's impacts on manufacturing enterprises. These tools were carefully developed, translated, and refined to ensure clarity, contextual relevance, and analytical rigor. Together, the semi-structured Key Informant Interview guide and the structured MSME survey questionnaire provided complementary insights, allowing the research to document sector-level dynamics, firm-level experiences, and the complex interplay of operational, financial, and institutional factors shaping post-earthquake recovery.

*Semi-structured Key Informant Interview Guide*

The qualitative component of the study employed a semi-structured Key Informant Interview (KII) guide to gather in-depth insights from representatives of large manufacturing firms and industry experts from relevant business associations. The guide was developed through a forward- and back-translation process between English and Burmese to ensure linguistic accuracy and conceptual consistency (Guthery and Lowe, 1992). This approach enabled the research team to elicit sector-level and policy-relevant perspectives on post-earthquake impacts and recovery processes.

The KII questionnaire was organised around five core themes:

i) Impacts of the earthquake on business operations and employment, including disruptions to production, labour availability, and supply-chain functioning;

ii) Asset and financial losses, such as damage to machinery, facilities, inventories, and liquidity constraints;

iii) Recovery challenges and coping strategies, with attention to operational adjustments, workforce management, and shifts in sourcing or market engagement;

iv) Access to and effectiveness of support measures, including formal assistance programmes, informal networks, and institutional services; and

v) Recommendations for strengthening disaster preparedness and resilience amongst MSMEs at the firm, sectoral, and policy levels.

The semi-structured format provided flexibility for respondents to elaborate on institutional, market, and regulatory dynamics influencing recovery outcomes, while still maintaining a consistent structure across interviews for analytical comparability. The full KII interview guide, in both English and Burmese, is included in the annexes. Annexes 1 and 2 present both English and Burmese interview guides.

*Quantitative Survey Questionnaire*

The quantitative component of the study employed a structured MSME survey questionnaire administered to manufacturing enterprises in Mandalay and the Nay Pyi Taw Council Area. To ensure linguistic accuracy and conceptual equivalence, the questionnaire underwent a forward- and back-translation process between English and Burmese, enabling the Myanmar-language version to fully preserve the original meaning and intent of the approved instrument (Guthery and Lowe, 1992). The final questionnaires in both English and Burmese are provided in Annexes 3 and 4.

The instrument consisted of 12 structured modules, each designed to capture a specific dimension of earthquake impacts and recovery:

i) Impacts on business operations and performance

ii) Impacts on employees, including labour availability and workforce adjustments

iii) Asset damage and financial conditions, covering physical losses and liquidity constraints

iv) Coping strategies, such as operational adjustments and sourcing or market shifts

v) Recovery challenges, including supply-chain disruptions and market constraints

vi) Access to and effectiveness of support measures, formal and informal

vii) Recommendations for future resilience and preparedness

viii) Pre-earthquake business environment, capturing baseline operations and vulnerabilities

ix) Business location and exposure characteristics

x) Business profile, including size, subsector, and ownership

xi) Respondent profile, covering demographics and decision-making roles

xii) Final assessment questions, enabling reflective evaluation of ongoing recovery conditions

The structured design facilitated systematic comparison across enterprise sizes, subsectors, and geographic locations. By generating harmonised data on impacts, recovery trajectories, and resilience capacities, the survey supports rigorous empirical

analysis and the development of evidence-based, policy-oriented recommendations.

## 6. Pretest and Instrument Refinement

A pilot survey was conducted in Mandalay in October 2025 to test the feasibility, clarity, and operational effectiveness of the research instruments before full-scale data collection. The pretest participants comprised four KIIs with business associations, two KIIs with large manufacturing firms, and two MSMEs interviewed using the structured quantitative questionnaire.

Following the pilot survey, a systematic review session was conducted involving survey team managers, field supervisors, and enumerators. During this review, pilot interview notes and completed questionnaires were examined to identify ambiguous wording, inconsistent interpretation of questions, gaps in response options, and operational challenges encountered during field implementation. Enumerators provided structured feedback on respondent reactions, commonly misunderstood terms, and difficulties in applying skip logic and probing techniques.

Feedback and lessons learned from the pretest were directly integrated into the finalisation of the survey instruments. Revisions included refining question wording to improve clarity, simplifying complex or compound questions, adjusting response categories, strengthening skip patterns, and improving probing guidance for qualitative interviews. These refinements ensured that the final instruments were context-appropriate, analytically robust, and aligned with the study's recovery-focused objectives.

The pretest also served as a mechanism for enumerator calibration and quality control. Based on observed inconsistencies in question delivery and probing techniques, targeted corrective guidance was provided to enumerators. This included clarifying standardised question phrasing, reinforcing neutrality in probing, correcting leading or interpretive prompts, and ensuring consistent application of definitions across interviews. Where necessary, enumerators were retrained on specific sections of the questionnaire to improve consistency and data quality.

In addition, the pilot survey informed the operational definition of key terms used in the questionnaire, such as 'business interruption,' 'partial operation,' 'recovery,' 'financial loss,' and 'support received.' Clear, standardised operational meanings were agreed upon and incorporated into enumerator guidelines and training materials to ensure uniform interpretation across respondents and locations. This step was critical to minimising measurement error and enhancing comparability of responses across enterprise sizes and study areas.

Overall, the pilot study strengthened the reliability, validity, and practical applicability of the final research instruments. It also ensured that both enumerators and respondents shared a common understanding of key concepts before full-scale field implementation.

## 7. Data Collection

Qualitative key informant interviews (KIIs) were conducted by the Research Director and senior researchers, recorded with informed consent, and supported by detailed interview notes. Quantitative data collection was conducted through face-to-face interviews, primarily using Computer-Assisted Personal Interviewing (CAPI), with limited use of Paper-and-Pencil Interviewing (PAPI) where connectivity constraints required. All interviews were administered by trained enumerators under close supervision by field managers and project staff.

All quantitative interviews with the structured questionnaire were conducted using CAPI. However, during fieldwork, the teams faced several operational challenges related to internet connectivity. In some locations, interviews could not be uploaded immediately after completion and were submitted later when internet access became available. In a few cases, interviewers needed to follow up with respondents to reconfirm missing information. Additionally, if an interview could not be completed in a single session, it was continued on the following day. Some completed interviews were temporarily saved in draft folders and subsequently resubmitted. Despite these challenges, no PAPI method was used at any stage of the data collection.

For selected interviews, two enumerators in each team were assigned: one senior enumerator and one junior enumerator. The senior enumerator conducted the interview using CAPI, while the junior enumerator supported the process by presenting show cards, taking notes and cross-checking responses to ensure completeness and accuracy.

All respondents participated voluntarily and provided informed consent. Personal and business-sensitive information was treated as strictly confidential and used solely for research purposes. The study adheres to ICC/ESOMAR research ethics and data protection standards.[3]

Multiple quality control mechanisms were implemented throughout the research process to ensure the reliability and validity of both quantitative and qualitative data. These measures included comprehensive enumerator training supported by detailed field manuals, equipping data collectors with standardised procedures and clear guidance on survey administration. Daily field supervision was conducted to review completed

[3] For the standards' details, visit: https://iccwbo.org/news-publications/business-solutions/iccesomar-international-code-market-opinion-social-research-data-analytics/

interviews, verify adherence to protocols, and address emerging issues in real time.

The survey instrument incorporated built-in logical and consistency checks, and systematic back-check procedures were applied to validate responses and minimise data-entry or interviewer errors. In addition, the quantitative questionnaire included final assessment questions designed to gauge respondents' confidence in their answers and the accuracy of their self-reported information, thereby strengthening internal validity.

For the qualitative component, findings were cross-verified across respondents and triangulated with survey evidence to ensure coherence, reduce bias, and enhance overall analytical credibility. Quantitative datasets subsequently underwent thorough cleaning and validation processes to ensure completeness, consistency, and analytical robustness.

## 8. Data Analysis

The data analysis for this study integrates qualitative and quantitative approaches to generate a comprehensive understanding of the earthquake's impacts on manufacturing enterprises and their subsequent recovery trajectories. By combining narrative insights from key informants with structured survey data from MSMEs, the analysis captures both the experiential dimensions of recovery and the measurable patterns that shape firm-level outcomes. This mixed-method design allows for robust triangulation across evidence sources, strengthens the validity of findings, and provides a nuanced foundation for interpreting constraints, resilience factors, and policy implications emerging from the post-earthquake context.

*Qualitative Analysis*

Qualitative data were analysed using a narrative and stakeholder perspective analysis approach. The analysis draws primarily on narrative accounts from large manufacturing firm owners and some qualitative answers from MSME owners, complemented by institutional insights from business associations and relevant stakeholders. Interview records were systematically reviewed to capture how respondents articulated the impacts of the earthquake, recovery trajectories, prevailing constraints, and perceived gaps in existing support mechanisms.

Rather than applying formal thematic coding, the analysis emphasised comparative interpretation across stakeholder groups, identifying areas of convergence and divergence between enterprise-level experiences and association-level assessments. This approach enabled the study to contextualise firm-level recovery challenges within broader structural, policy, and market conditions affecting the manufacturing sector.

A narrative stakeholder analysis is particularly appropriate in post-disaster and data-

constrained contexts, where respondents' experiential knowledge and institutional perspectives provide critical insights into recovery dynamics that are not readily captured through structured quantitative indicators.

*Quantitative Analysis*

The quantitative analysis applies descriptive statistics to profile MSMEs and summarises the impacts and losses associated with the earthquake. Cross-tabulations are used to compare recovery outcomes across firm sizes and locations, while correlation and group-mean comparisons support examination of differences in recovery constraints. The dataset also provides inputs for more advanced econometric analysis, including regression and factor analyses. All quantitative data were processed and analysed using SPSS or STATA, with fully documented codebooks and variable labels. The integration of quantitative results with qualitative insights enables robust triangulation and strengthens the credibility of the policy conclusions.

# Chapter 4

# Findings from Key Informant Interviews

This chapter presents the key findings from the study's qualitative component, drawing on in-depth interviews with large manufacturing firms and business associations in Mandalay and the Nay Pyi Taw Council Area. These perspectives provide critical, sector-level insights into how the earthquake disrupted production systems, labour markets, supply chains, and financial conditions across the manufacturing ecosystem. By synthesising the experiences of firms and institutional representatives, the chapter highlights not only the direct operational impacts of the disaster but also the structural vulnerabilities, policy constraints, and coordination gaps that shaped recovery trajectories. Together, these findings offer a nuanced understanding of the challenges facing MSMEs and larger enterprises, while informing practical recommendations for strengthening preparedness, resilience, and post-disaster economic recovery.

## 1. Large Firm Perspectives

In Mandalay's manufacturing heartland, the eleven large enterprises interviewed for this study describe business models built over decades: fixed-asset-intensive production lines, long-standing supplier and buyer relationships that span regional and national markets, and sizeable workforces, often 300–400 employees and, in some cases, well over 1,000, managed by senior decision-makers who lived through both the emergency response and the hard months of recovery.[4] Their vantage point is institutional rather than anecdotal: owners, CEOs, and senior managers who had to decide whether to shutter plants, when to recall workers, how to reallocate cash, and how to engage authorities while balancing safety, contracts, and solvency.

### *Impacts on Business Operations and Employment*

Before the earthquake, most firms were operating at or near normal capacity. Intermittent power cuts and periodic logistics delays were part of the background noise of doing

[4] This KII exercise classified certain firms with fewer than 300 employees, below the threshold defined for large enterprises under the SME Development Law (2015), as large firms based on the recommendations of MRCCI and the Industrial Zone Management Committees. These enterprises were included because of their strong market presence, well-established brand recognition, and status as industry leaders within the Mandalay Region.

business, frictions managed through playbooks that had been tested over years. Yet margins were already thin. Rising input costs, exchange-rate volatility, and uneven demand had narrowed buffers across several subsectors. Food, bakery, and beverage producers reported softening sales, linked by managers to reduced travel and subdued consumer spending, while textile-related manufacturers faced escalating costs and persistent market uncertainty. In contrast, construction-materials producers benefited from steady building demand, though they too saw logistics and input costs creep upward. In short, firms entered the crisis with functioning contingency routines but reduced capacity to absorb a shock of this magnitude.

The earthquake transformed manageable frictions into acute operational breakdowns. Every large manufacturer in the KII sample halted production to secure facilities, assess structural integrity, and inspect equipment, even where visible damage was limited. 'Production could not resume immediately,' one respondent noted, 'because machinery operations had to be suspended until comprehensive safety checks were completed.' Shutdowns ranged from several days to 1 to 2 months, with ripple effects that stalled production schedules, delayed contract fulfilment, and disrupted coordination with workers and distributors. By November 2025, all eleven firms had restarted, but none had returned to full capacity. A major food and beverage producer, estimating losses at roughly MMK 5 billion, was still operating at about 75% as repairs continued, a pattern emblematic of the broader stop-start recovery. Employment relationships were largely maintained, but reduced hours and lower productivity became a near-term equilibrium as firms struggled to sequence repairs, restart lines, and stabilise orders.

*Asset and Financial Losses*

The physical footprint of the damage was broad: factory buildings, warehouses, storage facilities, and specialised production infrastructure such as chimneys and boilers suffered structural harm. Machinery was often not destroyed but rendered unproductive, misaligned, cracked, or in need of parts and calibration, failures that are inexpensive to describe but costly to repair. Inventories spoiled in sectors with perishable inputs, magnifying losses. Where firms could price the damage, the figures were stark: approximately MMK 5 billion in the food and beverage sector (machinery, raw materials, storage tanks); around MMK 500 million in sugar manufacturing infrastructure (chimney collapse, boiler and building repairs); roughly MMK 500 million in building repairs and MMK 100 million in raw-material losses for leather footwear; and about MMK 50 million in scattered bakery-outlet repairs. Other subsectors, including mattress and foam, apparel, and tea processing, reported severe physical damage and lengthy stoppages but lacked systematised assessments to translate this into monetary terms, itself a constraint on financing and claims. Revenue fell sharply during shutdowns, and liquidity remained tight well into the recovery period. Insurance coverage was rare; where policies existed, compensation was delayed and insufficient, leaving firms to fund repairs and restarts

largely from retained earnings, an expensive, slow, and uncertain path to normalisation.

*Recovery Challenges and Coping Strategies*

The trajectory back toward normalcy proved gradual and uneven. High rehabilitation costs, especially for firms with sprawling compounds, coincided with limited access to finance that fit post-disaster realities. Existing loan products often came with high interest rates, short tenors, and stringent collateral requirements poorly matched to capital-intensive manufacturing repairs and the long cash-conversion cycles that follow a prolonged shutdown. Meanwhile, supply-chain disruptions compounded the problem: raw-material shipments were delayed and pricier; importing spare parts for damaged machinery took time; and qualified technicians to recalibrate specialised equipment were in short supply.

In the labour market, most firms resisted permanent layoffs, but irregular worker availability, owing to displacement, safety concerns, and transport constraints, dampened throughput and raised scheduling complexity. Ongoing conflict-related insecurity further strained logistics and weighed on business sentiment, turning tentative restarts into protracted recoveries. Under these conditions, firms leaned on pragmatic coping strategies: phased repairs, selective resumption of product lines, re-sequencing orders to preserve client relationships, reassigning labour where possible, and pacing capital expenditures to the trickle of recovering cash flow. These measures kept doors open but made full capacity a distant target.

*Access to and Effectiveness of Support Measures*

From the vantage point of the firms, public interventions were necessary but not sufficient. Immediate assistance focused appropriately on humanitarian needs and public infrastructure restoration, which stabilised communities but translated only indirectly into business recovery. Announced recovery loans for enterprises faced delays, complex application processes, and collateral hurdles in the banking channel. 'The support existed on paper,' one respondent said, 'but in practice it was difficult to access when we needed it most.' Many firms reported receiving no direct financial or technical support aimed specifically at restoring production capacity, replacing damaged assets, or bridging working-capital gaps. Weak coordination across institutions and limited data on losses further impeded targeting, while thin inter-firm linkages slowed collective action to restore supply chains. The net effect was a perception that official measures, while visible, were not calibrated to the speed, sequencing, or scale required by manufacturing recovery.

*Recommendations for Strengthening Enterprise Preparedness and Resilience*

The recommendations that emerged from the KIIs with large enterprises are pragmatic and cohere around three pillars. First, fit-for-purpose post-disaster finance: firms argue for rapid-disbursement facilities that blend repair finance with working-capital lines, feature streamlined applications, offer collateral alternatives, and extend repayment schedules to match the life of repaired assets and the slow ramp-up of post-disaster sales. A 'bridge-finance' window in the first 60–90 days could be decisive in preserving supplier relationships, payroll continuity, and market share. Second, industrial infrastructure and risk protection: strengthening the resilience of factory buildings, storage, electricity distribution, and industrial-zone utilities would shorten restart times and reduce damage in future shocks; expanding access to appropriately priced insurance, including business-interruption coverage, would de-risk recovery and reduce reliance on self-financing. Third, firm-level preparedness: institutionalising business continuity plans, diversifying suppliers and logistics routes, documenting assets and inventories to support claims and loan applications, and investing in preventive maintenance and hazard-mitigation systems. As one interviewee reflected, 'The earthquake showed us that the size of a business or its operations does not ensure safety; we need better preparation.' The message is clear: resilience is designed, not presumed, and must be embedded in firm practices and the systems that surround them.

*Cross-cutting Implications*

Three implications cut across these themes. First, pre-existing vulnerabilities magnified the shock. Thin margins, unstable power, and logistics frictions were not new; the earthquake turned them into binding constraints. Any recovery strategy that ignores these structural frictions will at best restore yesterday's fragility. Second, recovery hinges on alignment between firm realities and system design. Finance must match repair cycles and cash-flow timing; logistics corridors and industrial-zone services must be reliable enough to support restart; and information systems, on damage, technicians, parts, must be organised to compress downtime. Third, coordination is itself a resilience asset. Association-led platforms for loss assessment, supplier matching, and technical troubleshooting could speed sector-wide normalisation, particularly for MSMEs embedded in value chains anchored by large firms.

Taken together, the KIIs portray a manufacturing ecosystem that proved disciplined under routine stress but vulnerable to a systemic shock that simultaneously disrupted assets, labour, and markets. Managers made conservative choices, pause, inspect, repair, that protected workers and machines but lengthened the path to full capacity. In the absence of timely, accessible finance and targeted enterprise support, firms relied on their own reserves and improvisation, preserving organisational continuity at the cost of slower recovery. The recommendations they offer are not abstract: they are the mechanical

levers, finance designs, infrastructure upgrades, data systems, and preparedness routines, that would have shortened closures, preserved contracts, and cushioned employment. Building them now would not only accelerate the current recovery, but also harden the system against the next shock.

## 2. Business Association Perspectives

The eight KII respondents from Mandalay and two from Nay Pyi Taw comprised senior executive members from business associations, holding positions as presidents, vice presidents, chairmen, and secretaries. Respondents were affiliated with chambers of commerce and industry, manufacturing and sector-specific business associations, providing perspectives rooted in organisational leadership and industry representation.

Geographically, respondents were based in Mandalay, reflecting direct engagement with earthquake-affected business communities, as well as Nay Pyi Taw, where respondents from the Nay Pyi Taw Chamber of Commerce and Industry contributed insights from local business and association networks in the capital area. This profile ensured that the KIIs captured informed views from organisational leaders with practical knowledge of business conditions and post-earthquake recovery challenges. Unlike individual firm interviews, these association-level perspectives reflect aggregated member experiences and coordination-related challenges across sectors, helping to situate firm-level findings within broader institutional and recovery dynamics.

*Impacts of the Earthquake on Business Operations and Employment*

Key informants across Mandalay and Nay Pyi Taw described the earthquake as a compound shock that layered new disruptions onto an already fragile MSME operating environment. Before the disaster, firms were contending with deteriorating market conditions, political uncertainty, logistics bottlenecks, and shortages of skilled labour. The earthquake intensified these pre-existing challenges, triggering operational suspensions, temporary closures, and shortfalls in both labour and production capacity.

In Mandalay's industrial zones, home to hundreds of small-, medium-, and large-scale manufacturers, the earthquake caused widespread structural damage to business premises, equipment rooms, storage units, mixed-use commercial–residential buildings, and market spaces. As a result, many factories halted production while traders and retailers faced sudden loss of selling space and broken connections with their customer base. Supply-chain disruptions followed immediately: input delivery was delayed, access to raw materials became highly uncertain, and transportation constraints slowed distribution of finished goods to local markets. These effects were most evident in weaving, textiles, garments, sugar milling, and consumer goods.

Employment conditions deteriorated alongside operational disruptions. Labour shortages, which had been worsening due to political instability, outward migration, and rising wage expectations, became more acute as workers returned to rural hometowns or shifted into short-term, higher-wage informal jobs. Garment factories, typically operating with 30–50 workers, were unable to match wage levels offered in Yangon, reinforcing labour outflows just when firms needed workers to restart production. In Nay Pyi Taw, where physical damage was less severe, MSMEs still faced significant operational slowdowns due to rising transportation costs and limited access to raw materials, while pre-existing labour shortages intensified due to increased overseas migration.

Together, these conditions contributed to uneven and incomplete resumption of economic activity. Even several months after the earthquake, many enterprises had not returned to full operational capacity, with recovery trajectories heavily influenced by the severity of asset losses, access to capital, and structural labour constraints.

*Asset and Financial Losses*

The earthquake generated substantial asset and financial losses, though their scale varied significantly across regions and sectors. Mandalay experienced the most severe damage due to the concentration of industrial activities and the prevalence of mixed-use buildings where households and production units share the same physical structures. The collapse or partial failure of these buildings resulted in losses of machinery, inventories, raw materials, and finished goods. For weaving and textiles alone, at least 28 factories formally reported damages, indicating that actual losses were likely higher. The garment sector reported that approximately 20–30 factories sustained damage, alongside losses of around 10% of machinery. In the sugar industry, three mills suffered major equipment damage, including boiler failures, collapsed chimneys, and destroyed warehouse facilities.

These losses were compounded by market disruption, delayed payment cycles, and reduced liquidity. Firms with damaged storage facilities reported immediate loss of inventories, while traders were unable to retrieve or relocate goods in damaged markets. Import restrictions further limited access to replacement equipment and production inputs, extending recovery timelines.

In Nay Pyi Taw, asset losses were concentrated amongst micro and household-based enterprises. Approximately 35% of MSMEs, and nearly 30% of food-sector businesses, experienced damage to buildings, tools, or inventory. Although around 80% eventually resumed operations after repairs, many did so at reduced capacity due to financial constraints. With limited post-disaster assistance available, enterprises financed repairs through personal savings, household borrowing, and informal loans, deepening financial vulnerability.

Across both regions, inadequate access to liquidity emerged as a critical recovery bottleneck. Many firms lacked the capital needed to repair damaged assets, purchase raw

materials, or restore production to pre-disaster levels, reflecting systemic gaps in disaster-sensitive financial support for MSMEs.

*Recovery Challenges and Coping Strategies*

Interview findings highlight that MSME recovery was constrained by interconnected supply, financial, and labour challenges. In Mandalay, shortages of raw materials, driven by transportation problems and import restrictions, were the most persistent barrier to restoring production. Garment and textile firms dependent on imported inputs faced prolonged disruptions, and access to domestic substitutes was limited. Labour shortages further undermined recovery, particularly in labour-intensive subsectors such as garments, weaving, and small-scale manufacturing. Firms attempted various coping strategies, including reducing production volumes, hiring less-experienced workers, adjusting operating hours, or temporarily shifting to alternative inputs.

Financial liquidity emerged as a cross-cutting challenge. Many MSMEs reported delays in obtaining affordable credit, noting that collateral and documentation requirements were too stringent for small firms and recent earthquake victims. Traders and consumer goods enterprises faced fewer demand-side constraints due to the essential nature of their products but still struggled with higher operating costs and limited access to working capital.

In Nay Pyi Taw, recovery challenges centred more explicitly on financial constraints than on physical or supply-related barriers. MSMEs were highly reliant on self-financing, as formal financial channels remained largely inaccessible. Many entrepreneurs resorted to borrowing from informal lenders at high interest rates or selling household assets to finance repairs and resume operations. While small enterprises generally reopened within 2–4 weeks, production levels remained depressed due to persistent cost pressures and limited liquidity.

Across both cities, MSMEs demonstrated adaptive capacity but lacked the support, capital, and predictability required for more robust recovery. Their coping strategies were largely short-term, reflecting limited ability to address structural bottlenecks or invest in resilience.

*Access to and Effectiveness of Support Measures*

Access to post-earthquake support was widely described as insufficient, fragmented, and difficult for MSMEs to navigate. Respondents in both regions identified affordable finance as the most urgent and unmet recovery need. Many called for low-interest, long-term loans modelled on earlier concessional financing schemes, particularly those supported by development partners such as JICA. Business associations emphasised that channelling assistance through established networks such as the MRCCI would ensure

better targeting, transparency, and verification of affected firms.

Beyond finance, respondents highlighted critical policy gaps that constrained recovery. For instance, ongoing import restrictions on essential raw materials slowed production in manufacturing sectors, particularly garments and textiles. Despite government efforts to promote domestic production, the absence of complementary measures, such as easing import controls for necessary inputs, resolving transport bottlenecks affecting CMP-related exports, or providing temporary tax relief, contributed to prolonged recovery delays.

Informal support networks played a limited role, mainly facilitating small-scale borrowing or labour assistance. However, given the scale of losses and the structural nature of the challenges, these informal measures were insufficient to substitute for institutional support.

Associations noted that while some training programmes continued after the earthquake, such as garment-sector training coordinated by the Ministry of Labour, these programmes primarily contributed to long-term workforce development rather than addressing immediate rehabilitation needs.

Overall, respondents emphasised the importance of an integrated support framework that combines concessional finance, enabling policies, and institutional coordination to support effective and equitable MSME recovery.

*Recommendations for Strengthening Disaster Preparedness and MSME Resilience*

Key informants offered a broad set of recommendations aimed at strengthening future preparedness and resilience at the firm, sectoral, and policy levels.

*Firm-Level Recommendations*

Respondents highlighted the need for systematic disaster risk awareness and preparedness programmes targeted toward MSMEs. Emphasis was placed on:

- regular building inspections conducted by qualified experts,
- improved construction quality for mixed-use structures,
- business continuity planning, and
- insurance uptake to mitigate financial exposure.

Insurance emerged as a major gap. Respondents noted that without accessible MSME insurance products, enterprises remain highly vulnerable to future shocks and dependent on self-financing.

*Sector-Level Recommendations*

Interviewees underscored the need to address structural bottlenecks in production systems. Key measures included:

- easing import restrictions on raw materials,
- enhancing transport reliability,
- investing in modern equipment and technical upgrading,
- improving digital connectivity and market information systems, and
- strengthening skills development through targeted training centres and association-led programmes.

Business associations were seen as critical actors in facilitating sectoral resilience by organising trade fairs, coordinating training, and serving as platforms for communication between MSMEs and government agencies.

*Policy-Level Recommendations*

Respondents stressed that more coherent institutional frameworks are needed to support MSMEs before, during, and after disasters. Priority measures included:

- establishing accessible, low-interest, long-term financing mechanisms with simplified collateral requirements;
- integrating business associations into verification, targeting, and oversight of financial assistance schemes;
- improving coordination amongst government departments, especially for disaster response planning and early recovery interventions;
- implementing temporary tax relief for affected firms; and
- expanding institutional disaster-preparedness programmes, including community-based awareness and training initiatives.

Respondents also emphasised that resilience cannot be achieved without broader macroeconomic and regulatory stability. Enhancing trade policies, improving access to import–export channels, and strengthening regional stability were viewed as essential for securing sustainable MSME growth in the long term.

# Chapter 5
# MSMEs Survey Findings

This section presents findings from the MSME survey conducted to assess the impacts of the Mandalay Earthquake on business operations, performance, and recovery processes. Drawing on enterprise-level responses, the analysis first outlines the characteristics of surveyed MSMEs and their respondents. It then examines pre-earthquake business conditions and operating constraints, followed by an assessment of the scale and nature of earthquake-related disruptions. The section concludes by reviewing recovery challenges, sources of support, and forward-looking expectations regarding resilience and adaptation. The findings reflect enterprise perceptions at the time of the survey.

## 1. Respondent Profiles

This subsection outlines the demographic and professional characteristics of MSME respondents participating in the survey. Profiling respondents is important for contextualising subsequent findings, as the survey largely captures the perspectives of individuals directly responsible for enterprise-level decision-making.

Table 5.1 summarises key respondent characteristics, including gender, position within the enterprise, age, educational attainment, and years of management experience.

Table 5.1. Respondent Profile of Surveyed MSMEs

| No. | Indicator | Number | Percentage |
|---|---|---|---|
| | Gender | | |
| 1 | Male | 146 | 54 |
| 2 | Female | 124 | 46 |
| | Total | 270 | 100 |
| | Position | | |
| 1 | Owner / Chairperson / MD / CEO | 192 | 71 |
| 2 | Manager | 35 | 13 |
| 3 | Supervisor | 32 | 12 |
| 4 | Director / General Manager | 8 | 3 |
| 5 | Other | 3 | 1 |
| | Total | 270 | 100 |
| | Age (years) | | |
| 1 | 18–25 | 8 | 3 |
| 2 | 26–30 | 32 | 12 |
| 3 | 31–40 | 78 | 29 |
| 4 | 41–50 | 73 | 27 |
| 5 | 51–60 | 49 | 18 |
| 6 | Above 60 | 30 | 11 |
| | Total | 270 | 100 |
| | Education level | | |

| | | | |
|---|---|---|---|
| 1 | Basic education | 11 | 4 |
| 2 | Middle school | 49 | 18 |
| 3 | High school | 73 | 27 |
| 4 | Graduate | 131 | 49 |
| 5 | Diploma | 3 | 1 |
| 6 | Master's degree | 3 | 1 |
| | Total | 270 | 100 |
| | Years of experience | | |
| 1 | 1–5 years | 57 | 21 |
| 2 | 6–10 years | 68 | 25 |
| 3 | 11–15 years | 33 | 12 |
| 4 | 16–20 years | 52 | 19 |
| 5 | More than 20 years | 60 | 22 |
| | Total | 270 | 100 |

Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

The respondent profile reflects a diverse yet decision-oriented sample of MSMEs. In terms of gender, the distribution is relatively balanced, with men accounting for just over half of the respondents and women representing a substantial share. This balance indicates meaningful female participation in MSME ownership and management, although senior leadership roles remain predominantly male.

With respect to position within the enterprise, respondents are overwhelmingly drawn from senior decision-making roles. More than two-thirds of respondents identify as owners, chairpersons, managing directors, or chief executive officers, while a smaller share consists of managers and supervisors. This composition suggests that the survey primarily captures perspectives from individuals with direct authority over strategic, financial, and operational decision-making, strengthening the relevance of responses related to business performance and recovery strategies.

The age distribution indicates that most respondents fall within prime working-age groups, particularly between 31 and 50 years. This pattern suggests that enterprise leadership is largely exercised by economically active individuals with both experience and ongoing engagement in business operations. The presence of older respondents, including those above 50 years of age, further indicates continuity and accumulated business knowledge within surveyed enterprises.

Educational attainment amongst respondents is relatively high. Nearly half report having completed university-level education, while a substantial proportion have secondary education. This profile points to a generally well-educated leadership base, which is likely to influence enterprises' capacity to navigate regulatory requirements, adopt new practices, and engage with recovery and support programmes.

In terms of management experience, respondents report considerable tenure in business leadership roles. A majority have more than five years of experience, and a significant share report over 20 years of experience. This depth of experience suggests that many MSMEs are led by individuals who have previously managed firms through periods of economic uncertainty or disruption, lending further credibility to their assessments of

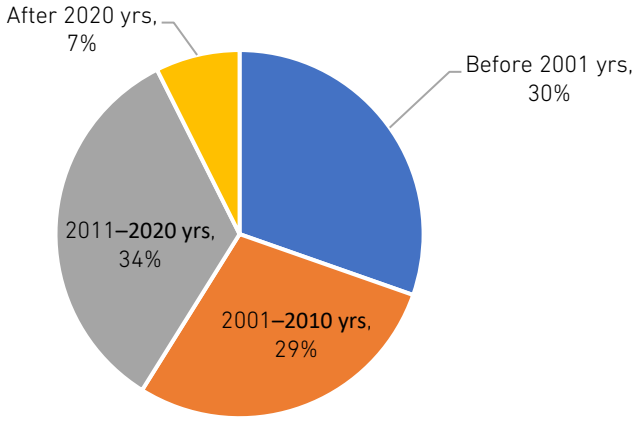
earthquake impacts and recovery challenges.

## 2. Business Profiles

The year of establishment indicates that the sample is dominated by relatively mature enterprises (Figure 5.1). Firms established between 2011 and 2020 constitute the largest cohort, while enterprises founded after 2020 represent only a small share. This pattern suggests that the survey primarily captures the experiences of established businesses with longer operating histories, rather than recent market entrants.

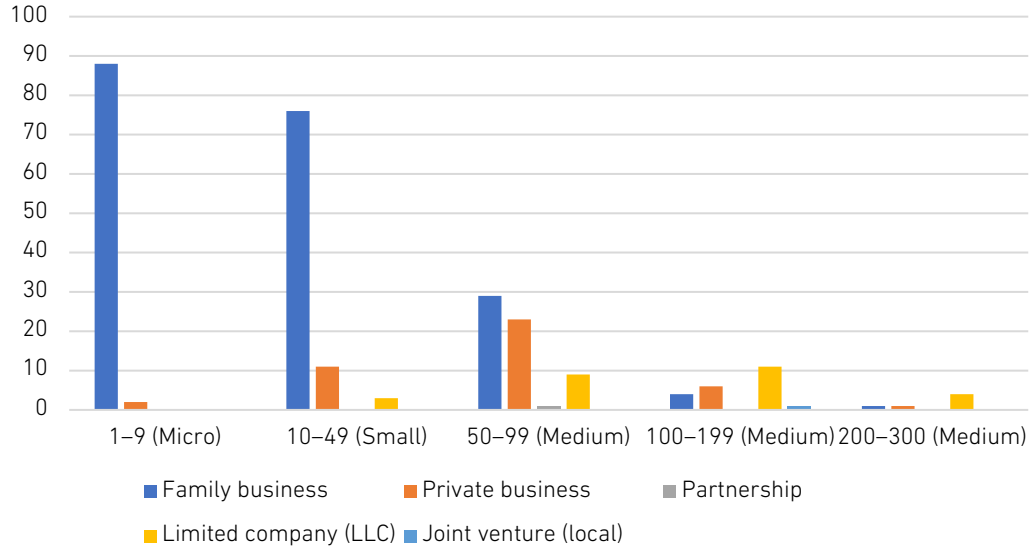
The ownership structure of surveyed MSMEs is heavily concentrated in individual- and family-based enterprises (Figure 5.2). Family-owned businesses account for the dominant share, reflecting limited separation between ownership and management. Other ownership forms, including privately owned enterprises and limited liability companies, represent a smaller portion of the sample, while partnerships and joint ventures are rare. This ownership pattern indicates that MSMEs largely operate under traditional family-based governance systems, where business decision-making, risk exposure, and recovery responsibilities are closely tied to household assets and personal networks.

Figure 5.1. Year of Establishment




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

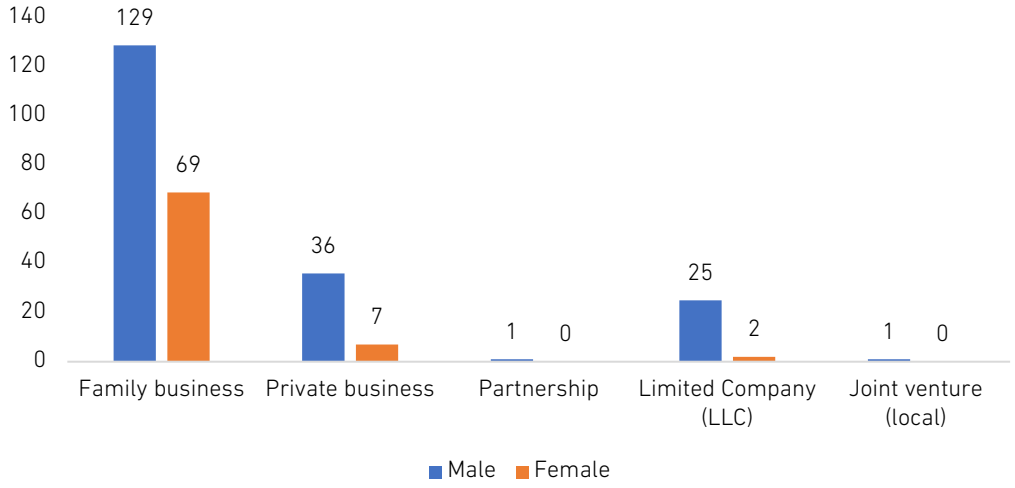
Figure 5.2. Business Ownerships




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

Women are well represented amongst family businesses, where they account for a substantial share of owners (69 female-owned versus 129 male-owned enterprises) (Figure 5.3). Their participation is lower in partnerships, with only seven female owners compared with 36 male owners. The gender gap becomes more pronounced amongst public companies: while this category is much smaller overall, men overwhelmingly dominate it, with 25 male-owned enterprises compared with just two owned by women. This indicates that as enterprises transition into more formalised and capital-intensive structures such as public companies, women's representation diminishes significantly.

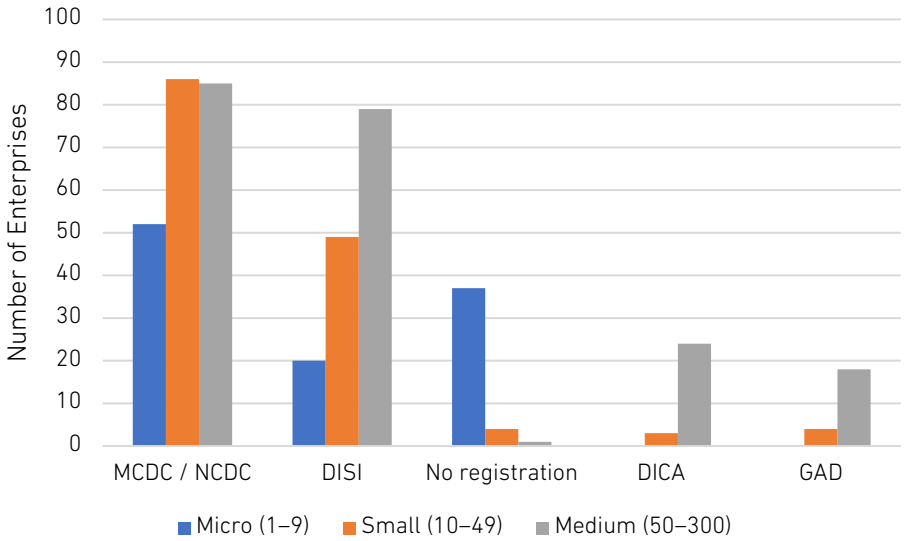
Figure 5.3. Business Owner and Top Management by Gender




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

Concerning formalisation, most MSMEs report holding at least one form of business registration, although registration remains uneven across administrative systems (Figure 5.4). Township-level registrations are the most common for the surveyed MSMEs, and many of them report holding multiple registrations simultaneously. Medium-sized enterprises are typically registered with DICA and GAD. At the same time, a notable share of MSMEs, most of these are micro enterprises, remains unregistered, indicating persistent gaps in formalisation within the sector. Without registration, when disasters like earthquakes strike, enterprises cannot receive government support, and during pandemics like COVID-19, it becomes difficult for authorities to impose regulations.

Figure 5.4. Business Registrations




*Notes*: DICA denotes the Directorate of Investment and Company Administration; DISI refers to the Directorate of Industrial Supervision and Inspection; GAD stands for the General Administration Department; MCDC is the Mandalay City Development Committee; and NCDC is the Nay Pyi Taw City Development Committee. While the first three agencies oversee business registration at the federal level, MCDC and NCDC are responsible for business registrations at the city level.
*Source*: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

### Box 2. Business Registrations: Costs and Benefits

In principle, all MSMEs with private capital investment in Myanmar are required to register with the appropriate government authorities. Business registration confers important benefits, including legal recognition, improved access to finance, and eligibility for government support programmes. In practice, however, the registration process is often cumbersome, shaped by overlapping institutional mandates and an unclear division of responsibilities amongst government agencies. As a result, MSMEs frequently interact with multiple authorities and may register with more than one institution, including the Directorate of Investment and Company Administration (DICA), the Directorate of Industrial Supervision and Inspection (DISI), the Small-Scale Industries Department (SSID), and municipal authorities, which play a particularly significant role in the registration of manufacturing enterprises (OECD, 2013).

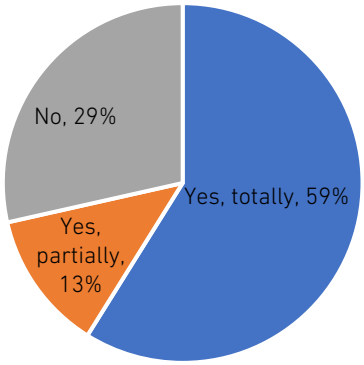
The registration framework is anchored in several laws that govern different categories of enterprises. The Private Industrial Enterprise Law (1990), implemented by the DISI, regulates private manufacturing enterprises operating power-driven machinery. Complementing this framework, the Promotion of Cottage Industries Law (1991), administered by the SSID, defines cottage industries as family-based, small-scale production, repair, maintenance, or service activities, typically employing up to nine workers. The broader legal framework for company incorporation is provided by the Myanmar Companies Act (2017), which replaced the 1914 Companies Act and establishes the rules for corporate registration with DICA.

Despite these statutory provisions, the institutional landscape remains highly fragmented. Responsibilities for registration, licensing, and administrative approvals are distributed across multiple agencies, including DICA, DISI, SSID, municipal Development Affairs Committees, and Township General Administration Departments (GAD). This fragmentation creates inherent complexity and uncertainty for firms, often requiring them to navigate parallel registration processes to remain compliant. For example, enterprises that use machinery must register with DISI to comply with the Private Industrial Enterprise Law, even if they are already registered with DICA. While such registration may be necessary to access MSME loans or formal support programmes, it also increases administrative burdens and compliance costs, particularly for smaller firms (OECD, 2013).

Overall, the coexistence of multiple registration regimes and overlapping institutional responsibilities makes duplicate registration difficult to avoid. This fragmented system raises transaction costs for MSMEs, reinforces informality amongst smaller enterprises, and complicates efforts to access formal finance and government support, underscoring the need for greater coordination and clarity in Myanmar's business registration framework.

Home-based operations are widespread amongst MSMEs, with the majority operating from residential premises, including the owners' homes. Approximately 59% of firms report being fully home-based, while an additional 13% operate partially from the owner's residence. Together, this indicates that nearly three-quarters of surveyed MSMEs engage in some level of home-based activity. In contrast, 29% report that they do not operate from a home setting (Figure 5.5).

Figure 5.5. Home-based MSMEs

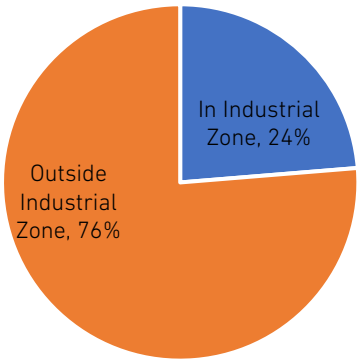



Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

The high prevalence of home-based operations points to close linkages between household and business assets, potentially increasing firms' vulnerability to shocks that affect residential structures, particularly in contexts where homes often lack adequate protection against natural hazards such as earthquakes. Overall, the findings underscore the central role of residential premises as a primary locus of MSME activity.

Consistent with the preceding findings, MSME activity in Mandalay is predominantly dispersed outside formal industrial zones (Figure 5.6). The majority of surveyed enterprises operate in non-industrial areas, with only a small share located within designated industrial estates. This spatial pattern indicates that MSME activity is generally decentralised rather than clustered within formal industrial zones.

Figure 5.6. MSMEs in Industrial Zones




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

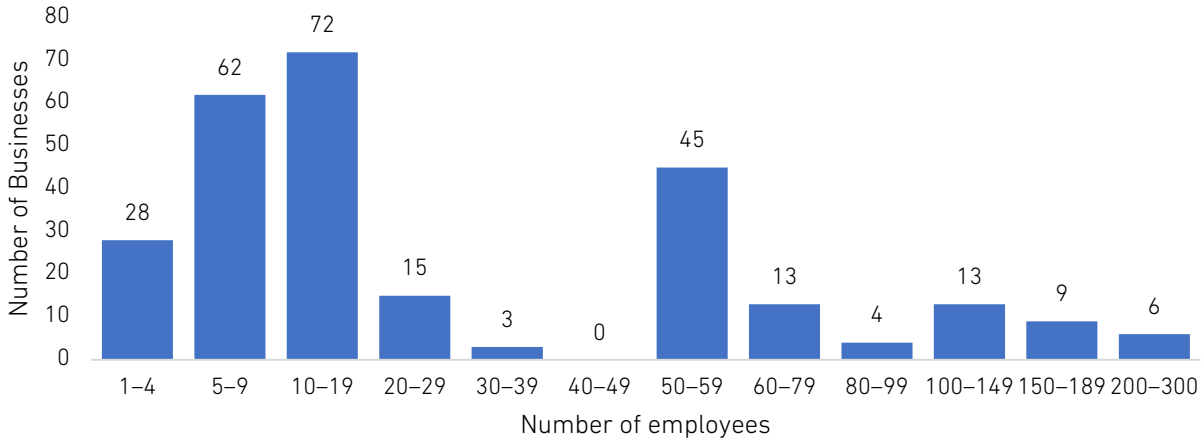
From a structural damage perspective, location, particularly whether an enterprise is home-attached, proved to be a critical determinant of earthquake impact severity. Home-attached MSMEs experienced markedly higher levels of structural damage than

those located in industrial zones. When an industrial-zone factory was damaged, losses were typically confined to production buildings and equipment. By contrast, for home-attached enterprises, the collapse of residential structures simultaneously destroyed workshops, machinery, and inventories. This dual exposure meant that affected households lost both shelter and productive capital in a single shock, substantially amplifying recovery challenges. Given that garment, weaving, and consumer-goods enterprises in the Mandalay region are predominantly home-based, their exposure to structural destruction was correspondingly higher.

Beyond physical damage, recovery dynamics also differed across locations. The negative conditional wage recovery effect suggests that firms located in industrial zones may be prioritising employment retention over wage restoration during the recovery process. While this strategy may help preserve jobs in the short term, it raises concerns about prolonged wage suppression. Policymakers should therefore assess whether this pattern represents a temporary adjustment, where wages gradually converge toward pre-earthquake levels as operational conditions stabilise, or a more persistent structural shift in labour outcomes. If wage differentials persist over time, targeted labour-protection measures for industrial-zone enterprises may be warranted to prevent sustained erosion of worker incomes.

Based on the survey data, the enterprise structure is dominated by very small, often family-run micro businesses, with most firms employing fewer than 10 workers. Under Myanmar's SME Development Law (2015), enterprises are classified using relatively broad employment thresholds for MSMEs; however, the survey indicates that most enterprises fall at the lower end of these legal categories and operate at scales closer to micro-enterprises in practice (Figure 5.7). This reveals a clear gap between legal classification and the actual economic scale at which most MSMEs operate.

Figure 5.7. Employee Size of the Surveyed MSMEs




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

### Box 3. Location, Sector, and Institutional Embeddedness Matter

Recovery outcomes amongst MSMEs following the Mandalay Earthquake varied markedly by business location, sectoral affiliation, and degree of institutional embeddedness. Enterprises operating outside formal industrial zones experienced significantly longer business closures than those located within industrial estates, reflecting weaker access to resilient infrastructure, shared services, and coordinated support mechanisms. Firms in industrial zones benefited from relatively faster restoration of utilities, better logistics connectivity, and closer links to formal institutions, enabling quicker operational restart.

Sectoral characteristics also played a decisive role. MSMEs engaged in textiles and raw material processing faced particularly prolonged disruptions. These sectors are highly dependent on uninterrupted power supply, imported inputs, machinery-intensive production, and extended supply chains: factors that were severely affected by earthquake-related damage and post-disaster logistical constraints. As a result, firms in these sectors exhibited longer recovery periods and higher vulnerability to secondary shocks.

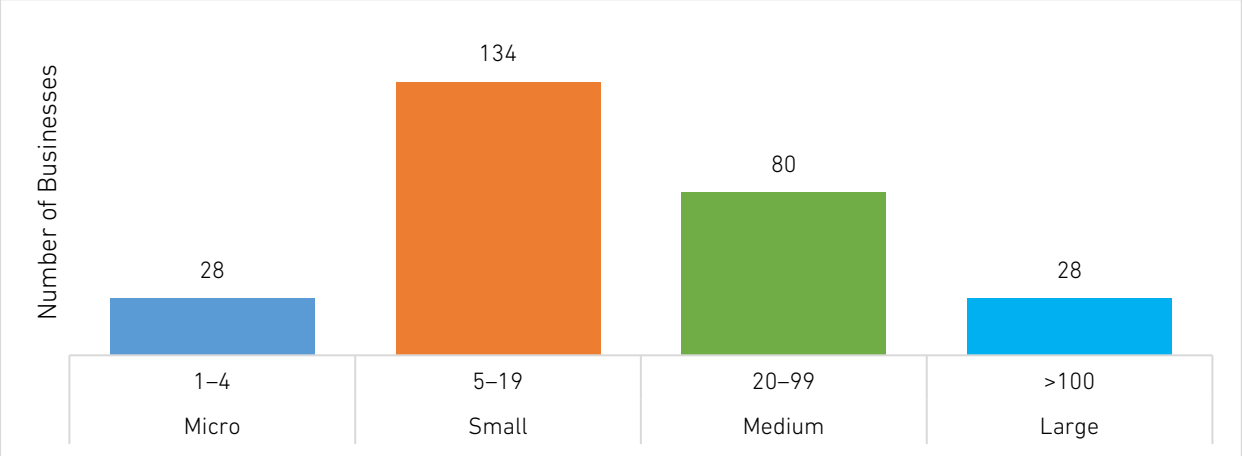
Institutional embeddedness further shaped recovery trajectories. Enterprises with formal registration, particularly with agencies such as DICA or DISI, and those affiliated with business or industry associations generally experienced shorter disruptions than informal or unregistered firms. Formal status and association membership facilitated access to information, coordination channels, and recovery support, while also easing interactions with authorities during the recovery phase. In contrast, firms lacking these institutional ties faced greater uncertainty, higher transaction costs, and limited access to assistance, contributing to longer recovery times.

Taken together, these patterns underscore that MSME recovery is not determined by the shock alone, but by where firms operate, what they produce, and how embedded they are within institutional and economic networks. Location, sector, and institutional connectedness function as critical mediating factors that either amplify vulnerability or enhance resilience in the aftermath of a disaster.

This enterprise-size structure is critical for understanding MSME vulnerability. Firms with very small workforces and limited asset bases have minimal financial buffers, weak access to formal credit, and strong dependence on household resources. As a result, even relatively small shocks such as temporary closures, minor asset damage, or short-term labour disruptions can quickly translate into liquidity crises and elevated risks of business closure. Micro-scale dominance, therefore, explains why recovery has been slow, fragile, and highly sensitive to institutional and financial disruption.

In comparison, the World Bank Enterprise Survey applies employment-based thresholds that distinguish micro (fewer than 5 employees), small (5–19), medium (20–99), and large (100+). When assessed against these international benchmarks, the surveyed enterprises are overwhelmingly concentrated in the micro and lower small segments, with very few reaching medium or large scale (Figure 5.8).

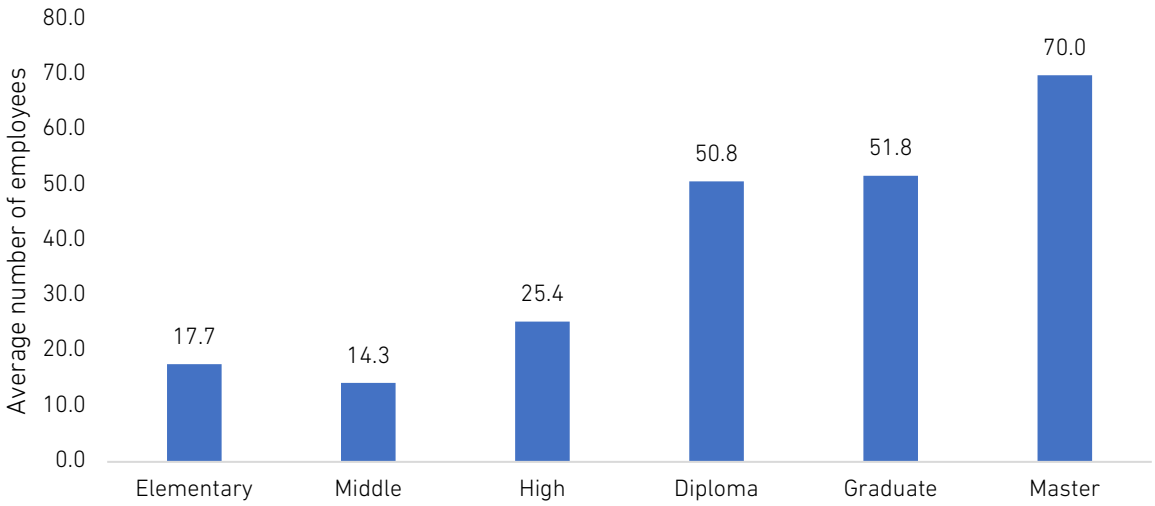
Figure 5.8. Employee Size by the World Bank's MSME Definition




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

Enterprises led by individuals with higher levels of education tend to employ a larger workforce (Figure 5.9). Average employment increases from firms led by owners with elementary education (17.7 employees) and middle school education (14.3) to those led by high school graduates (25.4) and rises sharply amongst enterprises managed by owners with diploma-level education (50.8), university degrees (51.8), and master's degrees (70.0). While the direction of causality cannot be firmly established, this pattern is consistent with the owner-managed structure of Myanmar's MSME sector. It is therefore plausible that higher educational attainment enhances technical competence, managerial capacity, and access to information and resources, enabling enterprise owners to expand operations and manage larger firms more effectively.

Figure 5.9 Firm Size by Education




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

Analysis of the employee distribution by gender shows that the overall number of male and female employees is broadly comparable across MSMEs (Table 5.2). Although female employees slightly outnumber male employees in total, the differences are small, and the gender balance remains relatively even within each enterprise-size category. Micro and medium-sized enterprises employ marginally more women, whereas small enterprises employ slightly more men, but none of these variations indicates a significant gender gap. Overall, the data suggests that in MSMEs across regions such as Mandalay and Nay Pyi Taw, women participate in the workforce on an equal footing with men and play an equally essential role in enterprise operations. Annex 5 provides the detailed statistics of firm size.

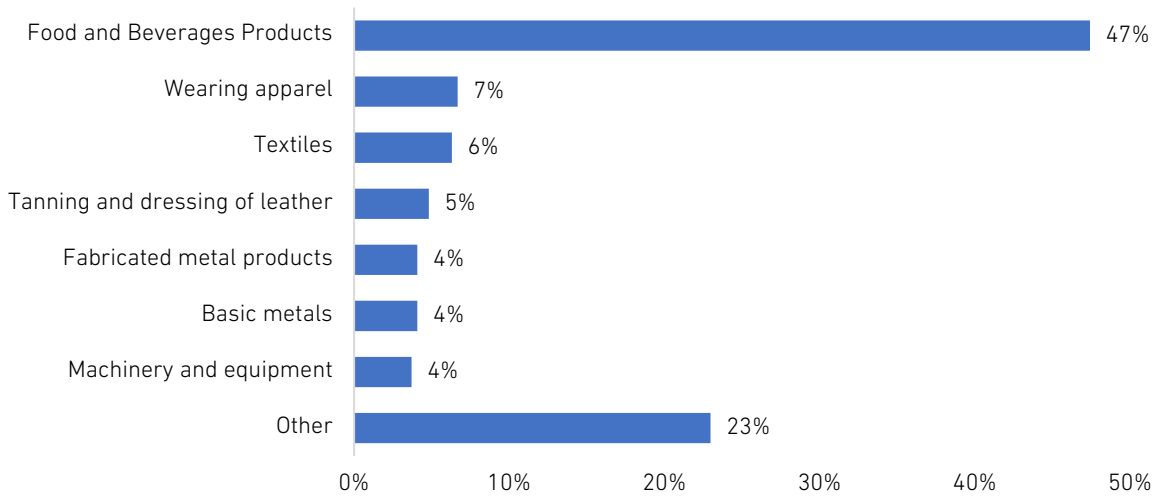
Table 5.2. Employee Distribution by Gender

| Enterprise size | Sample size | Total number of employees | Number of male employees | Male (%) | Number of female employees | Female (%) |
|---|---|---|---|---|---|---|
| Micro (1–9) | 90 | 486 | 229 | 47.1% | 257 | 52.9% |
| Small (10–49) | 90 | 1,361 | 745 | 54.7% | 616 | 45.3% |
| Medium (50–300) | 90 | 8,036 | 3,633 | 45.2% | 4,403 | 54.8% |
| Total | 270 | 9,883 | 4,607 | 46.6% | 5,276 | 53.4% |

Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

The sectoral composition of the surveyed MSMEs is heavily concentrated in food and beverage production, which accounts for nearly half of all enterprises in the sample (Figure 5.10). Other manufacturing subsectors, such as apparel, textiles, leather, and metal and machinery, are represented in smaller shares. The sample also includes a diverse set of additional activities grouped under other sectors. Annex 6 provides detailed statistics of business sectors.

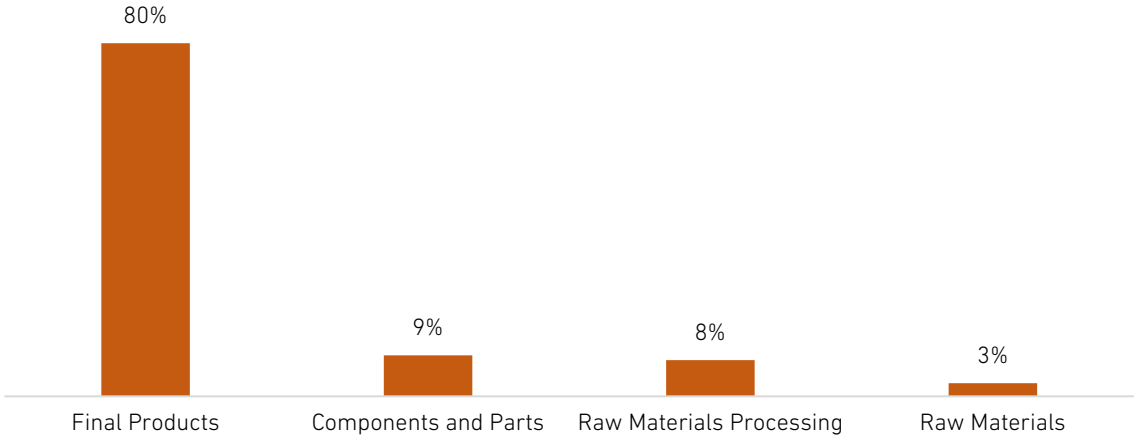
Figure 5.10. Business Sector




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

In terms of production focus, MSMEs are predominantly engaged in downstream activities (Figure 5.11). Most surveyed firms specialise in the production of final goods, while relatively few participate in the manufacture of components, parts, or raw materials. Engagement in upstream segments of the value chain therefore remains limited, indicating a strong orientation toward final markets rather than intermediate or input supply. This enterprise structure suggests that Myanmar's MSME manufacturing sector is largely concentrated at the downstream end of the value chain. Such a pattern reflects limited domestic industrial depth, capital constraints, and infrastructure weaknesses, which together hinder the development of more integrated, diversified, and resilient manufacturing value chains.

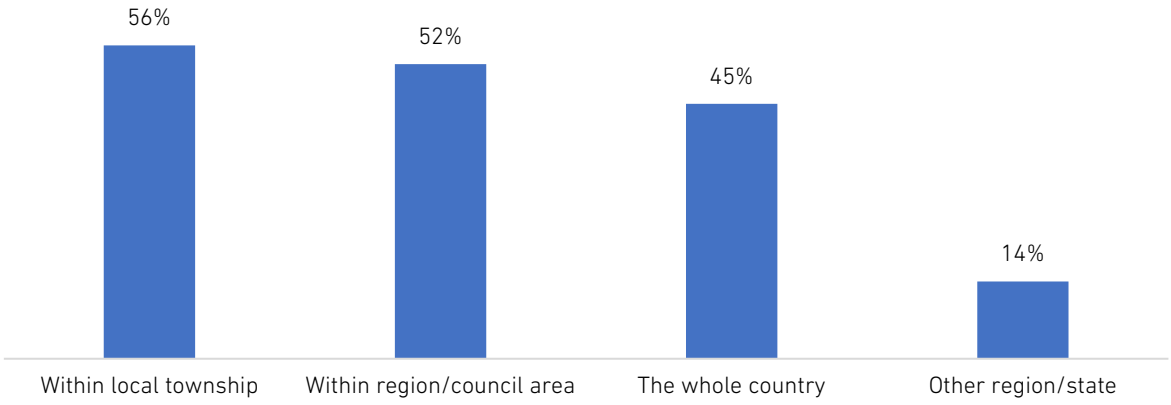
Figure 5.11. Products




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

The geographic reach of MSME product distribution is similarly concentrated in nearby markets (Figure 5.12). Most enterprises sell primarily within their own township or the surrounding area, indicating a strong reliance on localised demand. Although some firms report serving customers nationwide, expansion beyond proximate markets remains limited for the majority.

Figure 5.12. Product Distribution Areas



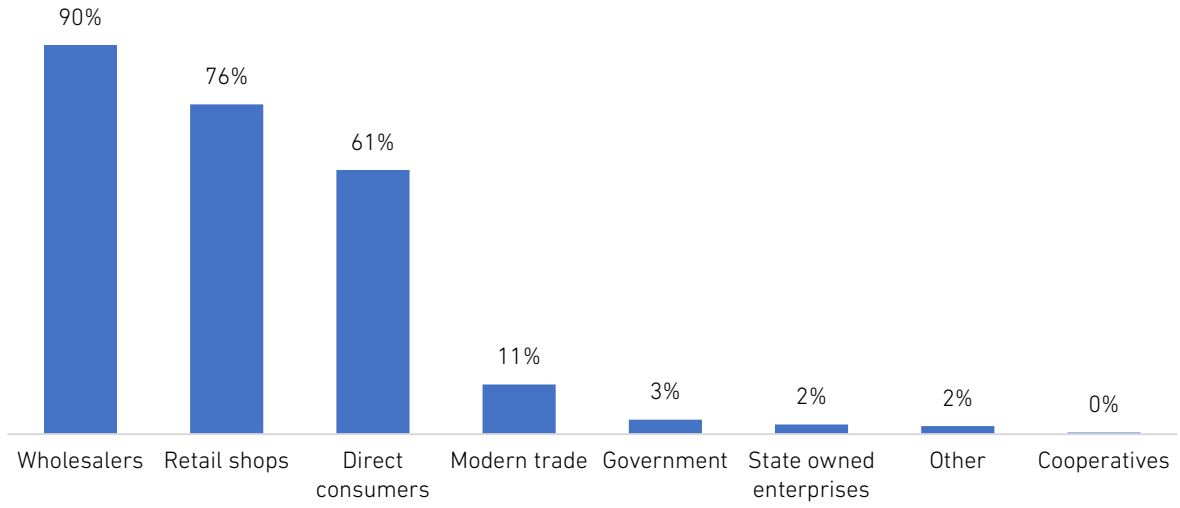

Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

Market reach also varies by enterprise size. Micro and small enterprises are largely oriented toward township-level and regional markets. Medium-sized enterprises, by contrast, exhibit a more balanced distribution pattern, with sales spread across local areas, states and regions, and other parts of the country. Amongst medium-sized enterprises with more than 100 employees, over half sell their products nationwide, reflecting greater capacity to operate beyond local markets.

Taken together, these patterns show that Myanmar's MSMEs generally maintain relatively broad domestic distribution networks, underscoring the importance of transport and logistics infrastructure for market access. Notably, although the survey included an option for exporting to foreign markets, no enterprises reported export activity, suggesting that developing export capability remains an important future priority.

In terms of target customers, MSMEs exhibit a strong orientation toward traditional and direct market channels (Figure 5.13). Most firms report supplying wholesalers, retail outlets, and end consumers, often simultaneously, indicating multi-channel engagement within domestic markets. In contrast, participation in modern trade, government procurement, state-owned enterprises, or other institutional markets remains limited. This reliance on conventional market channels highlights the continued importance of informal and relationship-based transactions in MSME operations.

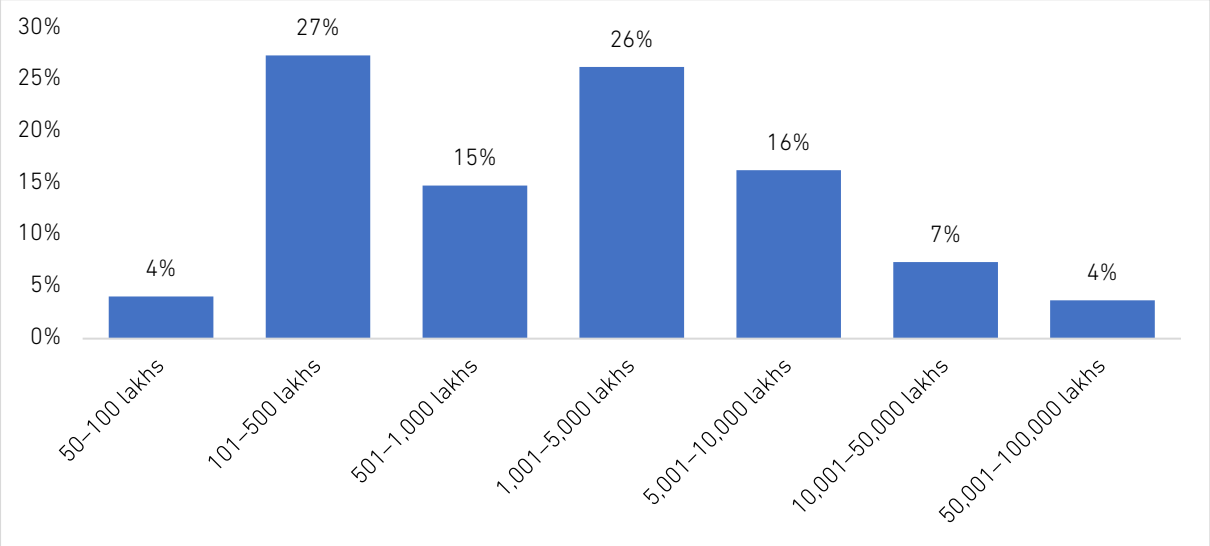
Figure 5.13. Customers




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

Figure 5.14 illustrates a distinct concentration of MSMEs within the lower-to-middle sales brackets during fiscal year 2024–2025, highlighting the predominantly modest scale of enterprise activity before the earthquake. The largest share of firms reported annual sales between 101–500 lakhs (27%) and 1,001–5,000 lakhs (26%), indicating that most MSMEs operated within relatively constrained revenue ranges. Mid-tier sales levels, such as 501–1,000 lakhs and 5,001–10,000 lakhs, accounted for 15% and 16% of firms, respectively, further reinforcing this clustering around modest turnover. In contrast, very low and very high revenue categories, 50–100 lakhs, 10,001–50,000 lakhs, and 50,001–100,000 lakhs, each represented only 4–7% of the surveyed MSMEs. Overall, the distribution underscores a sector dominated by smaller-scale operations, with limited representation amongst higher-revenue MSMEs before the earthquake occurred.

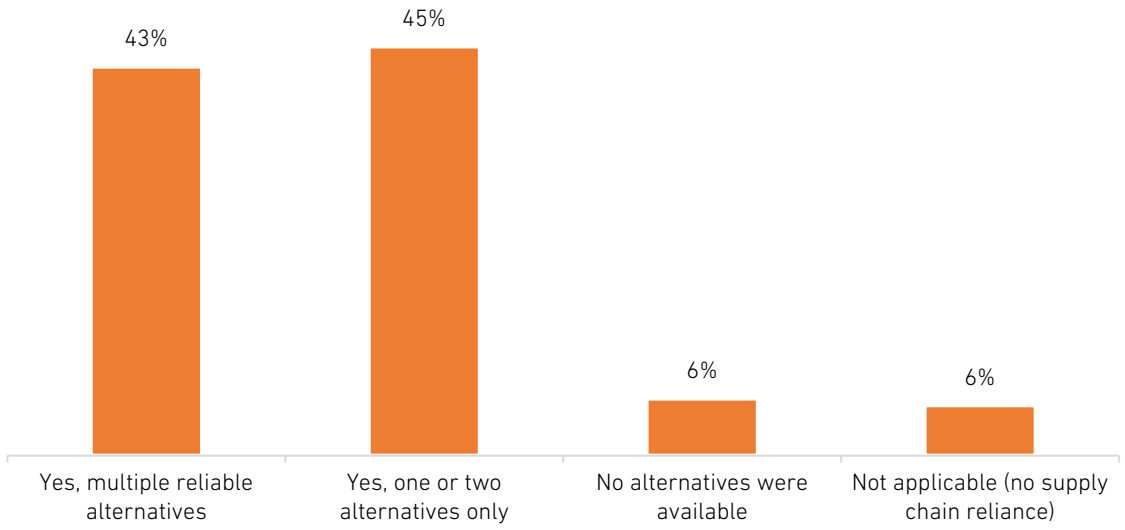
Figure 5.14. Total Sale Value during the Fiscal Year 2024–2025 (MMK)




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

About half of the enterprises rely on only one or two alternative suppliers, while roughly 40% report having several reliable options, indicating that supplier substitution is feasible but still limited for many firms. Fewer than 10% report having no alternative suppliers, suggesting that complete supply interruptions affect only a small minority. A similarly small share note that they do not depend on external suppliers and therefore are not exposed to supplier-related disruptions (Figure 5.15). Overall, the findings suggest that although most enterprises can manage supply disruptions to some extent, many continue to depend on a narrow set of alternative suppliers, constraining their ability to respond flexibly to natural hazards such as the Mandalay Earthquake.

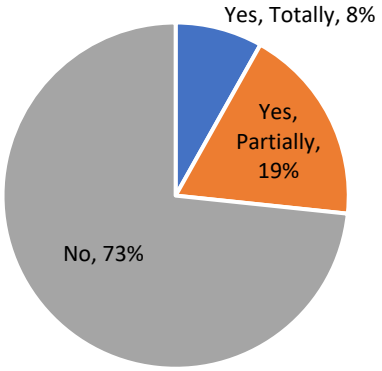
Figure 5.15. Availability of Alternative Supplies




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

Adoption of solar power amongst MSMEs remains limited: 73% of surveyed firms reported no use of solar energy, while 19% use solar solutions partially and only 8% rely on them fully (Figure 5.16). This indicates that alternative energy sources are not yet widely integrated into MSME operations despite persistent electricity supply disruptions. The survey findings are corroborated by the Key Informant Interviews with senior representatives of large firms and business associations in Mandalay and Nay Pyi Taw, who consistently identified frequent power outages as a major constraint on production continuity, service delivery, and recovery planning. The low uptake of solar solutions, despite widespread recognition of electricity-related risks, suggests that high upfront investment costs and limited access to finance continue to constrain adoption. Overall, the convergence of quantitative and qualitative evidence points to a persistent gap between exposure to energy disruptions and firms' capacity to invest in resilient energy solutions.

Figure 5.16. Use of Solar Power Installations Amongst MSMEs



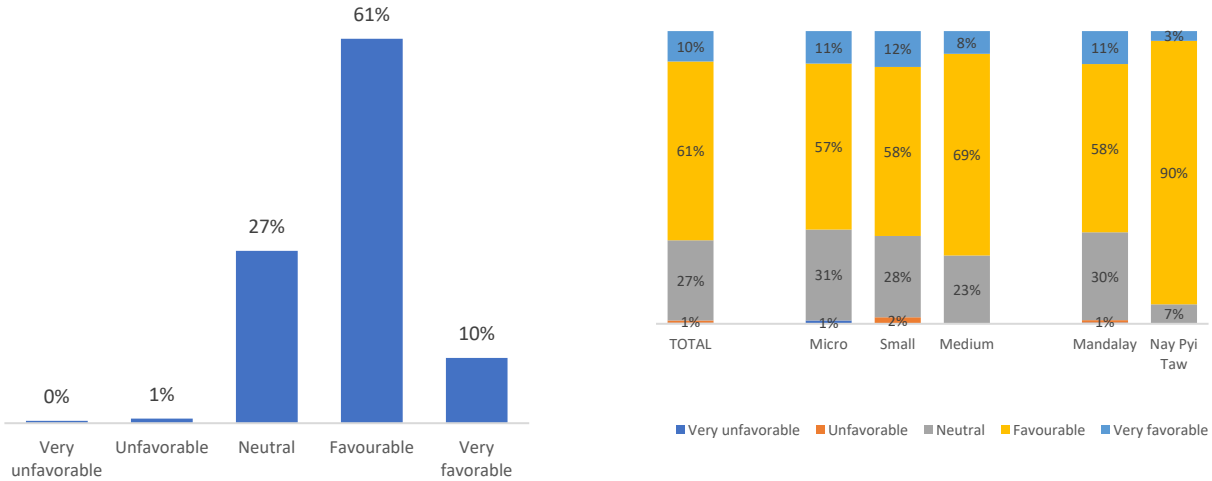

Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

## 3. Pre-earthquake Business Environment and Hazard Preparedness

This subsection examines the business environment faced by MSMEs before the earthquake to establish a baseline against which post-disaster impacts and recovery challenges can be assessed. It focuses on overall business conditions, macroeconomic and institutional factors, market and operational constraints, infrastructure and utility challenges, shaping MSME performance before the shock.

Overall, the surveyed MSMEs reported generally stable and positive business conditions before the earthquake, although perceptions varied by location and firm size (Figure 5.17). Business sentiment was strongest amongst enterprises in Nay Pyi Taw, while firms in Mandalay reported comparatively weaker conditions. Medium-sized enterprises tended to assess pre-earthquake conditions more favourably than micro and small firms, suggesting differences in operating capacity, market access, and resilience.

Figure 5.17. Overall Business Condition before the Earthquake




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

Before the earthquake, the surveyed MSMEs operated in a business environment that appeared, on the surface, administratively navigable yet economically fragile (see Figure 19 for an overview). Most owners were able to register their firms, renew licenses, and meet tax obligations without viewing these tasks as decisive barriers to survival. The institutional architecture, encompassing business licensing and procedures, taxation processes, property rights, and access to information and communication technologies, was certainly imperfect, but it did not dominate the day-to-day decision-making of the typical firm. Across these domains, survey responses were concentrated in the 'no obstacle' or 'minor obstacle' categories, suggesting that firms had learned to operate within the existing rules and that compliance costs, while present, were not the defining feature of the pre-disaster business environment.

The story changes, however, when one shifts from institutions to politics and prices. The business environment was overshadowed by political instability, which respondents identified as the single most consequential constraint. Owners described a background uncertainty that seeped into everything else, sales forecasts, hiring plans, and the willingness to commit to longer production runs or new credit lines. This was not merely episodic turbulence; rather, it was the ambient risk that made strategic planning feel speculative. Alongside politics, inflation pressed relentlessly on operating margins. Price volatility complicated procurement, inventory valuation, and contract negotiations, especially where suppliers and buyers preferred short payment windows or indexed prices. Interest rates compounded the problem: for many MSMEs, the cost of borrowing, where credit was available, limited the ability to smooth shocks or invest in modest productivity upgrades. Even before any physical damage occurred, these macro-political headwinds narrowed the room for error.

Operational conditions reflected these pressures but played out unevenly across firms. Many MSMEs struggled with limited working capital, a constraint that reliably amplifies other frictions: when cash is thin, price spikes become existential, and delivery delays cascade. Reports of weak demand were common enough to matter, especially in sectors selling discretionary goods, where even small downturns in purchasing power quickly cut into volumes. The shortage of inputs, both local and imported, exposed a brittle supply-chain spine. For some, the problem was sporadic stock-outs; for others, the issue was the unpredictability of delivery times, which forced costly over-ordering or idle labour. These difficulties were echoed in the labour market, where shortages of both skilled and unskilled workers constrained growth plans and, at times, forced firms to accept lower quality output or slower turnaround.

Infrastructure and utilities added another layer to the narrative. Above all, electricity stood out as the most binding physical constraint. Unreliable supply, manifest as outages, voltage fluctuations, or both, directly undermined productivity, damaged equipment, and compelled firms to invest in small generators that raised unit costs and required fuel management skills many did not possess. Fuel availability (petrol) and

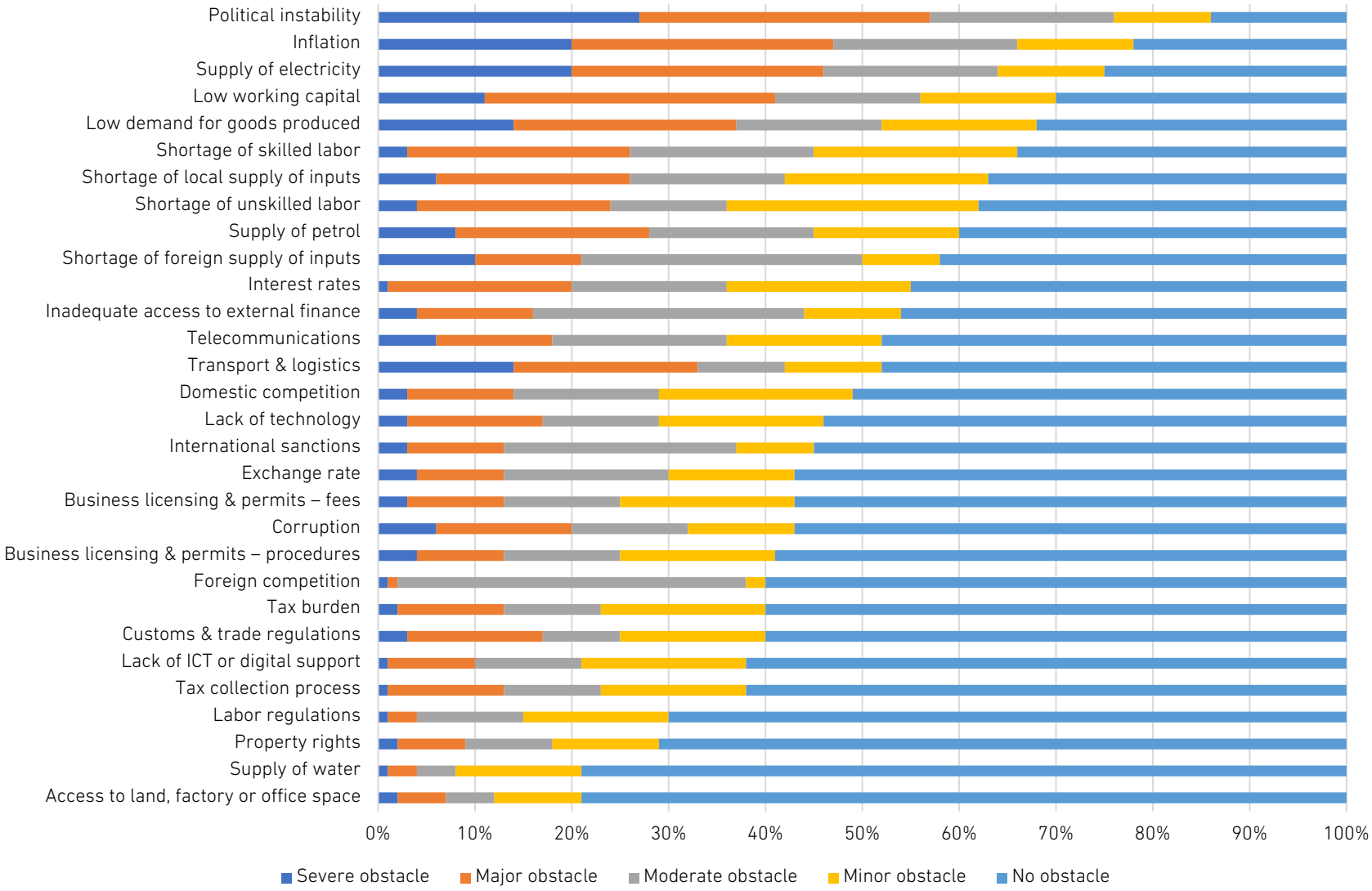
telecommunications were not trivial problems, but they tended to be episodic and sector-specific rather than economy-wide chokepoints. In contrast, access to land, factory or office space, and water supply featured prominently amongst the least problematic areas. Most firms entered the disaster with premises secured and basic water access in place, which meant that their primary vulnerabilities lay elsewhere.

Within this overall picture of regulatory navigability and macro-infrastructural strain, two categories demand explicit attention because their burden intensifies sharply under certain conditions: Transport and logistics and corruption. On average, neither ranks alongside political instability or inflation. Yet both register relatively high shares of 'severe' and 'major' obstacle responses when compared with other administrative domains, signalling that their impact is highly heterogeneous.

For transport and logistics, severity hinges on what a firm does and where it does it. A wholesaler serving multiple districts, a small manufacturer dependent on just-in-time inputs, or a trader moving perishable goods will experience congested corridors, unreliable last-mile services, and unpredictable transit times not as inconveniences but as binding constraints. Freight costs rise, delivery windows narrow, and reputational risk increases when firms miss promised dates. In these contexts, logistics ceases to be a background function and becomes the central determinant of competitiveness. The survey's elevated severe or major shares capture that reality: while many firms can tolerate standard delays, a sizeable minority cannot, and for them logistics frictions translate directly into lost sales and thinner margins.

Corruption follows a similar pattern of conditional severity. For firms with frequent touchpoints, customs clearance, inspections, licensing renewals, or access to public procurement, the risk of arbitrary fees, discretionary enforcement, or opaque requirements compounds compliance costs and introduces uncertainty that is hard to price ex ante. A small firm with limited administrative bandwidth is particularly exposed: what might be a 'minor obstacle' for a larger enterprise with dedicated compliance staff can become a severe constraint for an MSME juggling production, sales, and paperwork simultaneously. The data reflect this heterogeneity. In the aggregate, corruption does not dominate the rankings; in the tails, it does real damage, distorting competition and pushing some firms toward informality despite the risks that entails (ESCAP, 2013; Soans and Abe, 2016).

Figure 5.18. Constraints in Business Environment before the Earthquake

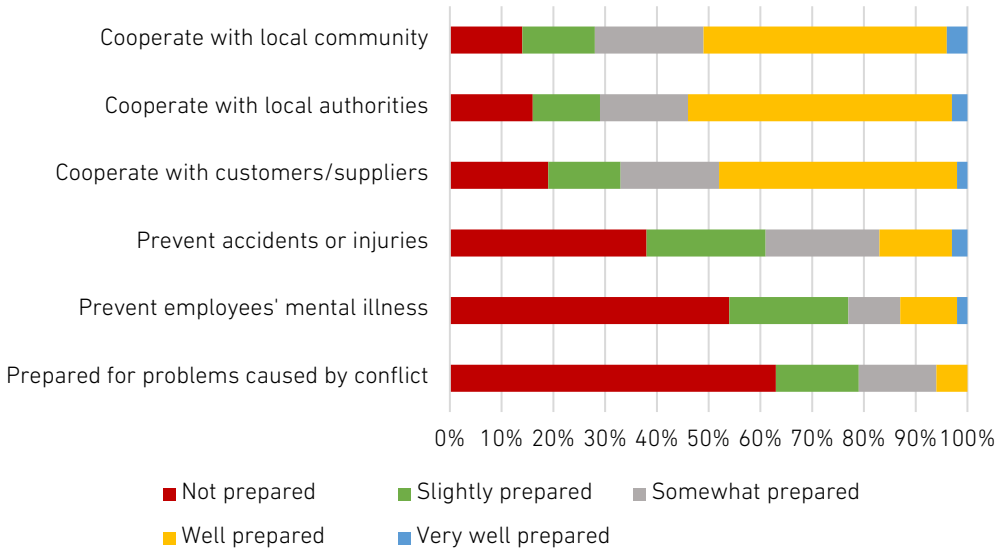



Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

Taken together, these patterns portray a pre-earthquake economy that was administratively passable but strategically constrained. Political instability and inflation set the tone; unreliable electricity and costly finance translated that tone into operational limits; and a subset of firms, those most exposed to mobility and regulatory interfaces, faced disproportionately high barriers in transport and logistics and corruption. This combination mattered for resilience. Firms did not enter the earthquake with a surplus of slack. Working-capital buffers were already thin, procurement and delivery schedules were already tight, and the cost of mistakes was already high. When the shock arrived, it met an MSME sector that had learned to function despite frictions but had little capacity left to absorb a large disruption. This narrative helps explain why impacts observed after the earthquake were both severe and uneven. Where political uncertainty and inflation had eroded planning horizons, recovery investments were slower to materialise. Where electricity was unreliable, production restarted haltingly. And where logistics were fragile or administrative interactions carried integrity risks, re-establishing market access required more time, more cash, and more trust than many firms could spare. The lesson is straightforward: even in periods that appear administratively stable, macro-political stability, reliable power, affordable finance, and clean, efficient logistics and regulatory interfaces are the real foundations of MSME resilience.

The results in Figure 5.19 illustrate that the surveyed MSMEs exhibited generally low levels of preparedness before the Mandalay Earthquake, with clear disparities across different areas of readiness. Internal risk-management capacities appear particularly weak: most firms reported not being prepared or only slightly prepared to address employee mental health issues or to cope with problems arising from conflict, making these the dimensions with the highest concentration of negative responses.

Figure 5.19. MSMEs' Readiness before the Earthquake




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

In contrast, comparatively stronger readiness is evident in relational or co-operation-based capacities. Nearly half of the surveyed firms indicated that they were well prepared to work with local authorities, local communities, and customers or suppliers to address emerging problems. Nonetheless, only a very small proportion of firms considered themselves very well prepared in any category, highlighting that even where co-operative mechanisms exist, they tend to lack depth or robustness. Overall, the pattern suggests that MSMEs' pre-earthquake preparedness leaned more heavily on informal networks and external collaboration than on comprehensive internal systems or structured preparedness measures.

### Box 4. How Pre-Earthquake Business Conditions Shaped MSMEs' Reactions and Resilience

The 2025 MSME Survey offers a rare opportunity to examine how Myanmar's MSMEs experienced the Mandalay Earthquake, not only in terms of the damage sustained but also in relation to the conditions under which firms were operating before the disaster. By asking enterprises to assess overall business conditions in their sector before the earthquake, the survey reveals important variation in preparedness, vulnerability, and adaptive capacity across the MSME landscape.[5]

Although most firms reported generally favourable pre-earthquake business conditions, a clearer pattern emerges beneath these aggregate assessments. Enterprises that entered the shock with pre-existing structural difficulties, such as administrative bottlenecks, financial constraints, logistical instability, or fragile supply chains, tended to face the disaster with fewer response options, lower resilience, and more challenging recovery trajectories.

#### Key findings

*Administrative and financial burdens limited firms' capacity to cope.*
Firms reporting administration and finance-related disruptions, such as challenges with licensing, tax processes, or financial management, were significantly more likely to describe the pre-earthquake business environment as less favourable. For many MSMEs, these disruptions resemble a form of 'background noise' that continuously drains managerial time and attention. When layered over emergency conditions, these burdens can:

- Slow down efforts to process paperwork for government assistance
- Reduce firms' ability to coordinate with authorities
- Create delays in restarting operations after the shock

In practical terms, administrative complications meant firms entered the earthquake already stretched, weakening their resilience.

[5] Because some response categories were sparsely populated, we analysed these ratings using pooled-category statistical models, including an ordered logit model and multinomial models with average marginal effects. These approaches allow us to identify the broader patterns behind how firms evaluated the pre-shock business environment and how those conditions shaped their subsequent reactions and resilience strategies.

*Logistics instability made it harder for firms to adapt after the shock.*

Logistics disruptions, such as unstable transport networks or unreliable delivery schedules, also strongly influenced how firms viewed conditions before the earthquake. Since logistics is often the backbone of MSME functioning, pre-existing instability meant that firms:

- Had limited fallback options when supply lines were damaged
- Could not quickly reroute shipments or secure inputs after the disaster
- Were at heightened risk of inventory depletion and prolonged downtime

This reduced MSMEs' ability to pivot or improvise during the disaster, dampening resilience.

*Financial constraints reduced firms' ability to absorb the shock.*

The analysis shows a strong association between working-capital shortages and credit constraints and less favourable pre-earthquake business conditions. Firms entering the earthquake with limited financial flexibility faced serious hurdles:

- Low liquidity made it harder to finance immediate repairs
- Limited access to credit delayed business resumption
- Reliance on informal or high-cost lenders created additional financial stress

Thus, finance-constrained MSMEs carried the shock with fewer buffers, reducing their short-term adaptability and long-term resilience.

Supply-chain fragility amplified the disaster's impact.

Firms experiencing the losses and damages of raw materials and inventories were much more likely to report weaker pre-earthquake business conditions, suggesting structural weaknesses in supply and storage systems. These weaknesses matter because they magnify the effects of a disaster:

- Insufficient storage and protective infrastructure exposes inputs to damage
- Limited supplier diversity increases vulnerability to disruptions
- Weak inventory management practices leave firms with no cushion during shocks

These already unfavourable pre-shock conditions left many MSMEs operating at the margin, thereby amplifying the severity of the earthquake's impact.

*Place-based challenges shaped firms' recovery pathways*.

The analysis also shows that MSMEs that later relocated after the earthquake tended to view their pre-shock business environment as less favourable. This suggests underlying place-based disadvantages, such as:

- Lower quality infrastructure
- Weaker access to markets and services
- Limited local institutional support

Firms operating in these contexts were less anchored, less supported, and ultimately more likely to abandon their original locations after the disaster. In essence, relocation is not simply

a reaction to the earthquake; it is a reflection of vulnerabilities present long before the ground moved.

Policy Recommendations

*Reduce administrative and logistical burdens to strengthen resilience before disasters occur*

Policies that streamline administrative processes, permitting, taxation, and compliance, along with initiatives to stabilise logistics networks, can improve firms' baseline resilience by freeing up managerial capacity and minimising day-to-day disruption.

*Address working-capital constraints to improve financial shock absorption*

Short-term credit lines, guarantee schemes, supplier-credit programmes, and flexible repayment options can help ensure that firms are not entering disasters with dangerously thin liquidity.

*Support supply-chain resilience through better storage, diversification, and risk-management practices*

Investments in more secure storage, diversified sourcing, and basic risk-management training can reduce inventory losses during disasters and shorten recovery times.

*Target place-based weaknesses with localised interventions*

Where firms face consistent challenges tied to geography, such as poor infrastructure or inadequate administrative support, programmes should consider localised business-environment reforms, coordinated with municipal authorities.

The Mandalay earthquake did not strike a level playing field. MSMEs' recovery prospects were heavily shaped by their pre-existing business environments. Firms already burdened by administrative hurdles, cash-flow shortages, logistics instability, and supply-chain vulnerabilities entered the crisis with lower resilience and fewer viable response options. Those operating in more favourable conditions, supported by better infrastructure, simpler procedures, or stronger finances, were far better positioned to navigate the shock. Using pre-earthquake business conditions as a diagnostic tool offers a low-cost way to identify firms and localities needing greater support before the next shock. Strengthening resilience, therefore, requires improving business environments well in advance, by easing administrative burdens, stabilising logistics and supply chains, expanding access to working capital, and addressing place-specific weaknesses, so that future disasters find firms better prepared and more adaptive.

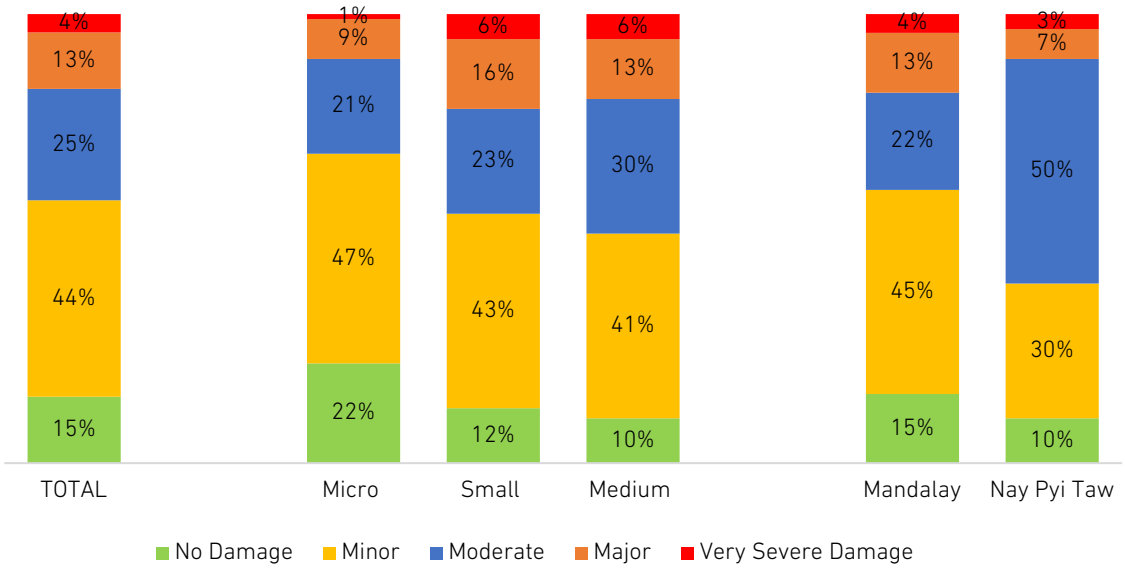
## 4. Earthquake Impacts

This subsection examines how the earthquake affected MSME operations, performance, and continuity, tracing the trajectory of disruption from immediate impacts to short-term recovery. It focuses on changes in business performance, asset damage and financial losses, operational shutdowns, labour impacts, and functional disruptions, highlighting how these dimensions interact to shape the overall severity of the shock.

Overall, the earthquake had a widespread negative impact on MSME business

performance, although the severity varied across firms by size and location (Figure 5.20). While many enterprises reported minor to moderate disruptions, a substantial share experienced major or very severe impacts. Medium-sized enterprises and firms located in heavily affected areas reported higher levels of severe disruption, reflecting greater exposure of buildings, machinery, and production facilities. In contrast, micro enterprises more frequently reported minor impacts or temporary disruptions, indicating lower capital exposure but also more limited buffers.

Figure 5.20. Overall Impact




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

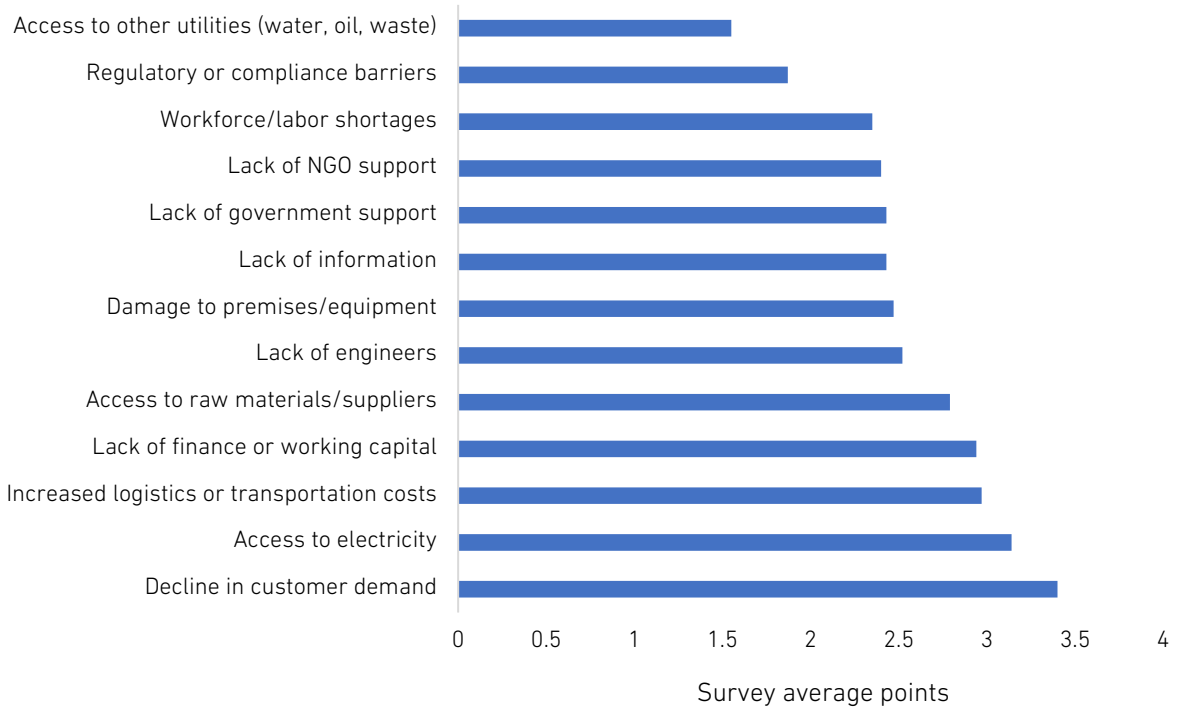
By enterprise size, micro enterprises were relatively less affected in terms of severity, with nearly half reporting minor impacts and over one-fifth indicating no damage. Severe disruptions amongst micro firms were limited. In contrast, small and medium-sized enterprises exhibited a higher concentration of moderate to major impacts, reflecting greater exposure of fixed assets, machinery, and production facilities. Medium-sized enterprises reported the highest share of moderate impacts, alongside a noticeable proportion experiencing major and very severe damage, suggesting increased vulnerability due to scale and capital intensity.

Regional differences are also evident. In Mandalay, where the majority of MSMEs were surveyed, nearly half of the enterprises reported minor impacts, while around one-fifth experienced moderate impacts. However, Mandalay also recorded a non-negligible share of major and very severe damage, indicating localised concentration of earthquake-related disruptions. In contrast, MSMEs in Nay Pyi Taw were more likely to report moderate impacts, accounting for half of the sample, while fewer enterprises experienced major or very severe damage. This suggests that although operational disruptions were widespread in Nay Pyi Taw, the intensity of damage was comparatively lower than in

Mandalay.

The most significant challenge reported by enterprises was a decline in customer demand, which also ranked as the most severe in its impact (Figure 5.21). This downturn is expected to ease as reconstruction activities progress and security conditions in the Mandalay region stabilise.

Figure 5.21. Challenges Posed by the Earthquake




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).
Note: Scores range from the lowest value, indicating not a challenge, to the highest value, indicating an extremely critical challenge.

Access to electricity and rising logistics or transportation costs emerged as the next most pressing challenges. Although electricity shortages were partially triggered by earthquake-related disruptions, they have become a chronic constraint. A stable power supply is essential not only for post-earthquake recovery but also for the medium- and long-term development of Mandalay's manufacturing sector, making it a structural issue that extends beyond immediate recovery needs.

Logistics disruptions, while initially caused by the earthquake, were further intensified by security measures implemented for the general elections, including road checkpoints and restrictions on certain transported goods (see the KII findings in the previous section). Ensuring efficient logistics therefore represents another challenge that transcends short-term recovery efforts.

Difficulties in accessing finance and raw materials follow these concerns. In the short term, enterprises require bridge financing to sustain operations, whereas medium- and long-term recovery depends on access to capital investment for repairing or replacing damaged machinery and equipment. Demand for bridge financing is likely strongest amongst micro and small enterprises, while medium-sized firms, many of which own substantial equipment, are expected to have a greater need for long-term capital investment funds. Because such financing requires extended recovery periods, private financial institutions may be unable to meet these needs, highlighting the critical role of government-affiliated institutions in providing long-term, low-interest loans. Shortages of engineers and labour were also frequently cited.

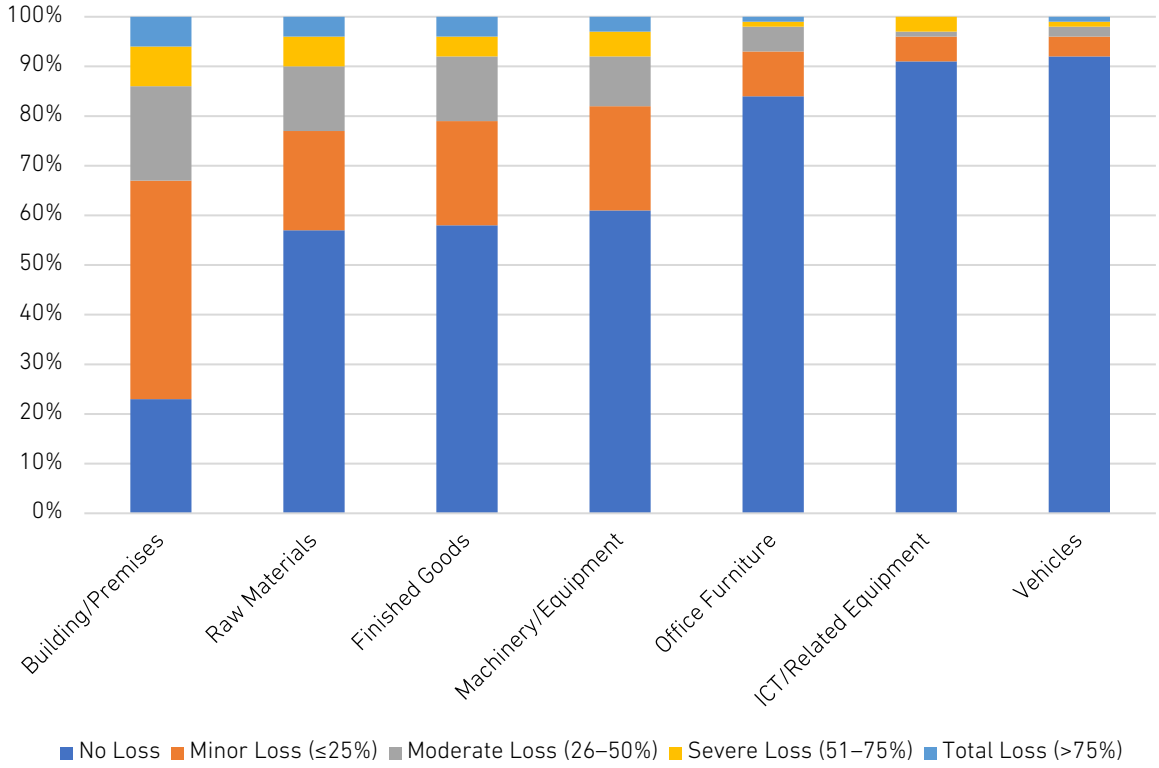
Overall, these five challenges appear in the first quadrant, high frequency and high severity, indicating that many enterprises experience them and that they have substantial impact. Addressing these challenges should therefore be treated as a top policy and recovery priority.

Figure 5.22 illustrates the distribution of asset damage across major asset categories. The results indicate that buildings and premises were the most heavily affected, with only a small share of firms reporting no loss. A large proportion experienced minor to moderate damage, and a notable segment faced severe or total losses, underscoring the continued vulnerability of physical structures.

Damage to raw materials and finished goods was also significant. For both categories, fewer than half of firms reported no loss, while many experienced minor to moderate damage and a smaller but visible share reported severe losses, pointing to ongoing disruptions in input availability and inventory stability. Machinery and equipment performed comparatively better: a majority of firms reported no loss, though a meaningful proportion still experienced minor or moderate damage. Office furniture and fixtures, along with ICT-related equipment, showed high levels of resilience, with most firms reporting no losses and only small fractions experiencing damage. Vehicles were the least affected asset category. Nearly all firms reported no loss, and only a very small share reported minor or moderate damage, indicating that mobile assets remained largely intact.

Overall, asset damage continues to be a key channel through which earthquake impacts materialised. While administrative and mobile assets, such as vehicles, ICT equipment, and office furniture, were mostly unaffected, raw materials, finished goods, machinery, and especially buildings sustained higher levels of damage. This pattern suggests that firms continue to face structural challenges and disruptions within their production processes, despite relatively strong recovery in operational and administrative assets.

Figure 5.21. Damage to Buildings, Machinery, and Inventory

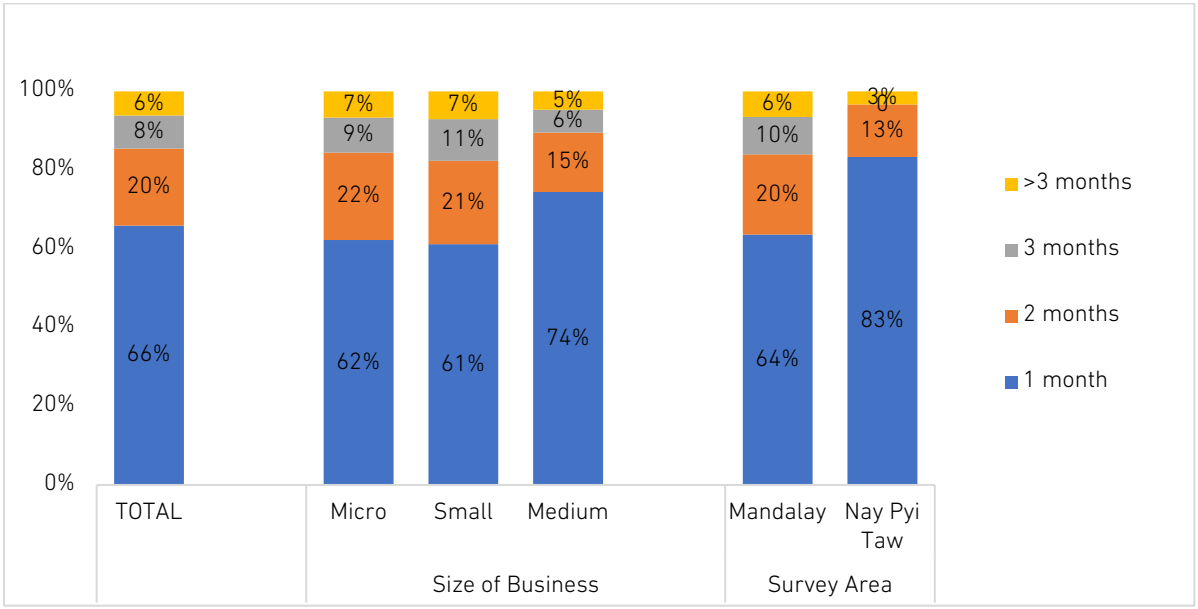



Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

Overall, 66% of firms resumed operations within 1 month, making short-term interruption the predominant outcome across all business sizes and locations (Figure 5.22). Medium-sized enterprises reported the highest share of 1-month disruptions (74%), while Nay Pyi Taw businesses showed a similarly rapid recovery, with 83% reopening within a month.

Micro and small firms, however, display relatively larger proportions of disruptions lasting 2 months or more, 22% and 21% for 2-month closures, respectively, suggesting greater vulnerability to extended operational interruption. Despite these differences, disruptions lasting more than 3 months were uncommon across all categories, representing only a small fraction of firms. Overall, although the findings indicate a relatively rapid resumption of business activity after the earthquake, the evidence on closure duration suggests that MSMEs faced greater operational difficulties as periods of closure lengthened.

Figure 5.22. Duration of Business Closure




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

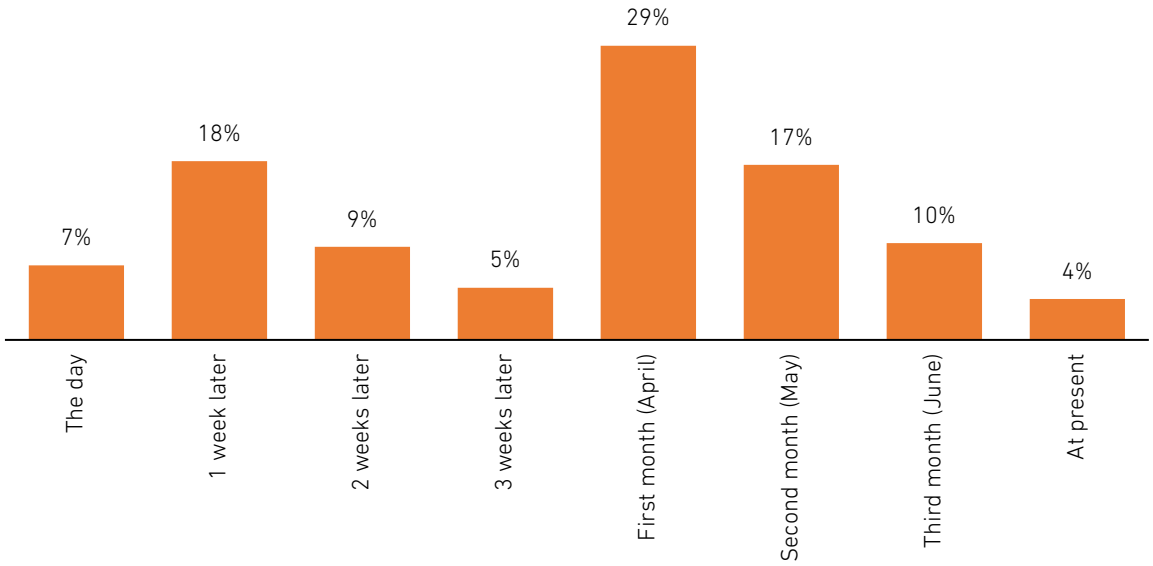
Direct physical impacts, while limited in scale, were still notable. Fourteen workers reported injuries or longer-term health consequences, and 15 fatalities were recorded. Qualitative reports further highlight the predominance of psychological distress: workers described fear triggered by loud noises, discomfort working on upper floors, and anxiety in enclosed or tightly secured compounds.

In response, firms adopted a range of adaptive measures aimed at reducing fear and enabling rapid evacuation. These included keeping factory gates open, leaving motorcycles unlocked, and increasing security personnel to reassure staff.

Overall, the evidence indicates that the earthquake's labour impacts were driven primarily by mental health strain and employment disruption, rather than direct physical injury. This underscores the importance of integrating psychosocial support and employment protection measures into post-disaster recovery strategies.

The findings from the survey indicate that the most difficult period for MSMEs occurred after the immediate shock of the earthquake, rather than on the day itself (Figure 25). The first month after the earthquake (April 2025) was reported as the worst moment by the largest share of respondents (29%), highlighting delayed but intensified business disruptions. This is followed by the 1 week after the earthquake (18%) and the second month (May 2025) (17%), suggesting that operational stress accumulated as businesses faced ongoing constraints. Fewer MSMEs identified the day of the earthquake as the worst moment (7%), while the share declined further in the third month (June 2025) (10%) and at present (4%), indicating gradual recovery over time. Overall, nearly two-thirds of MSMEs experienced their worst business conditions within the first 2 months following the earthquake, underscoring the critical importance of early post-disaster support.

Figure 5.23. Worst Moment for Businesses after the Earthquake in 2025

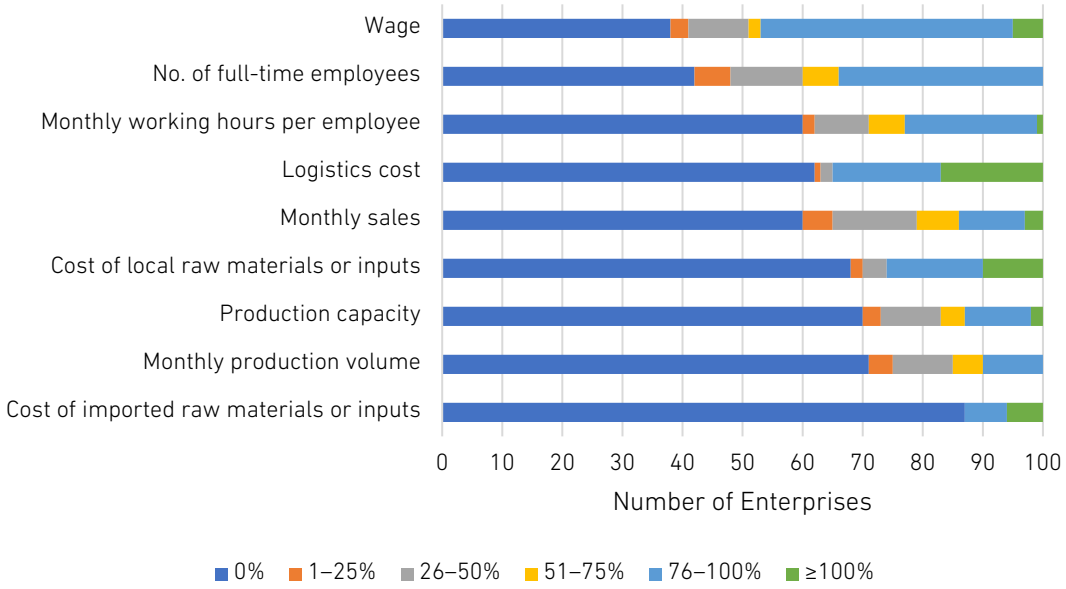



Note: 'At present' suggests the time of the survey conducted, thus, from November 2025 to January 2026.
Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

Figure 5.24 indicates that MSMEs experienced severe operational and cost-related disruptions during the worst period following the earthquake. Production-related indicators were most affected, with a large share of firms reporting production volume, sales, and capacity falling to 0–25% of normal levels, reflecting a sharp contraction in business activity at the peak of the crisis. Reductions in full-time employment and monthly working hours were also observed, though these impacts were less pronounced than declines in production and sales, suggesting that some firms retained partial operational capacity.

In contrast, cost pressures intensified markedly. Many firms reported substantial increases in the cost of raw materials, imported inputs, and logistics, with costs frequently reaching 76–100% or more of the pre-earthquake levels. Wage costs were relatively more stable, although partial reductions were reported by some enterprises. Overall, the worst phase combined collapsed output with rising input and logistics costs, placing acute pressure on MSME operations and financial sustainability.

Figure 5.24. Operations during the Worst Moment




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

## Box 5. Understanding the Drivers of MSME Impact

This box examines the key drivers of overall business impact, capturing MSMEs' perceptions of the severity of the earthquake's effects on their operations. It explores how pre-existing firm characteristics and operating conditions interact with the shock to shape differences in disruption, resilience, and recovery outcomes across enterprises. By identifying the factors most strongly associated with higher levels of reported impact, the analysis provides insight into why some MSMEs experienced more severe and persistent operational challenges than others.[6]

### Key findings

*Physical damage emerged as the strongest and most consistent predictor of severe business impact.*

Physical damage, especially to buildings, machinery, inventories, and finished goods, was consistently the variable most tightly linked with higher impact scores. Building damage alone showed an exceptionally high rank correlation with 'overall impact.' Similar patterns held for machinery damage, raw materials, and finished goods. Even after controlling for township-level differences and for other operational variables, these damage indicators remained the principal drivers of overall harm.

*Operational downtime significantly amplified perceived impact.*

The number of days that firms were unable to operate showed a strong positive association with the 'overall impact.' This factor retained its explanatory importance even after accounting for physical damage, implying that interruptions to business continuity have independent,

[6] The analysis integrates descriptive statistics, correlation measures, cross-validated predictive modelling, and robustness checks, all of which converge to identify a coherent set of factors that most strongly influenced business outcomes during the crisis.

measurable consequences.

*The timing of the 'worst moment' was a meaningful correlate of higher severity.*

Firms that reported their 'worst moment' occurring later in the post-quake timeline tended to report higher overall impact. This prolonged uncertainty or delayed disruption exacerbates the economic burden borne by MSMEs.

*Township effects mattered but did not overshadow the role of damage.*

Incorporating township fixed effects increased model fit, demonstrating that geographic context shaped the distribution of impacts. Nevertheless, core physical damage variables continued to dominate the model's explanatory power even after township differences were accounted for, reinforcing the centrality of structural harm as the main driver of observed outcomes.

## Policy implications

*Prioritise support for rapid structural and equipment repair*

Given that physical damage is the most dominant factor influencing overall business losses, policy efforts should concentrate on accelerating the repair of buildings, machinery, and inventory storage areas. Findings strongly support interventions such as emergency repair grants, subsidised access to materials, and expedited structural assessments. Restoring physical capacity is likely the highest-impact investment for reducing long-term economic disruption.

*Develop mechanisms to minimise operational downtime*

Reducing the number of days businesses remain closed is crucial. Evidence shows that downtime's role is independent of physical damage, which suggests that policies aimed at ensuring continuity, such as emergency utility restoration, temporary workspaces, or short-term wage subsidies, could mitigate economic harm even when structural damage is unavoidable.

*Strengthen communication and crisis-management mechanisms*

The significant effect of 'worst moment timing' implies that uncertainty can intensify business impact. Clearer communication channels, consistent updates, and localised recovery guidance could help reduce the compounding effects of delayed information in future disasters.

*Target the hardest-hit townships, but focus assistance within them on highly damaged firms*

Although township fixed effects demonstrate meaningful geographic variation, physical damage remains the primary determinant of firm-level outcomes. Targeting efforts spatially should therefore be paired with criteria that prioritise the most structurally affected firms within these locations.

*Leverage a simplified 'Damage Index' for field triage*

The study demonstrates that a composite index of five damage indicators (buildings, machinery, raw materials, finished goods, and premises/equipment) can effectively reproduce the explanatory power of more complex models. This index could be adopted in rapid assessment tools to support fair, transparent allocation of aid and to streamline decision-making processes during future events.

The empirical evidence provides a coherent picture: physical damage, operational disruption, and prolonged uncertainty are the main pathways through which the Mandalay Earthquake affected MSMEs. While local geographic factors played a meaningful role, structural harm and downtime remained decisive even after accounting for township variation.

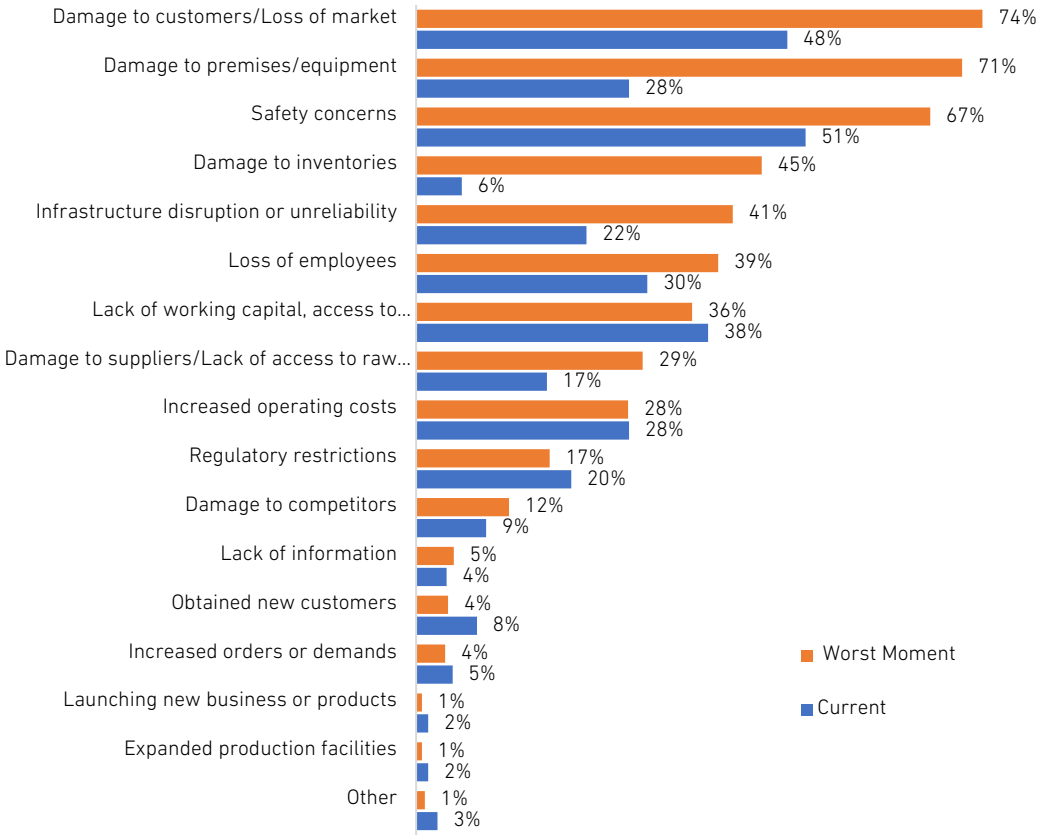
Effective policy responses should therefore centre on rapid repair, business continuity measures, improved crisis communication, and targeted assistance within the most affected localities. By grounding disaster recovery strategies in these evidence-based priorities, policymakers can help safeguard local livelihoods and accelerate economic stabilisation following future shocks.

## 5. Recovery from the Impacts of the Earthquake

This section examines MSMEs' capacity to adjust and recover in the aftermath of the Mandalay Earthquake. The section presents multi-dimensional business disruptions in both MSMEs and their markets under the prolonged impacts of the earthquake. It illustrates key recovery constraints in such areas as access to finance and insurance, digital tools, and external support received. Together, these dimensions highlight the principal bottlenecks shaping the pace and inclusiveness of post-earthquake recovery.

Figure 5.25 shows that business disruptions following the earthquake were widespread and multi-dimensional, with impacts most severe during the worst period and easing only partially thereafter. At the peak of the crisis, loss of customers and market access, damage to premises and equipment, and safety concerns were the most frequently cited threats to business continuity, underscoring the combined demand-side and physical nature of the shock.

Figure 5.25. The Most Serious Impact: The Worst Moment and Current



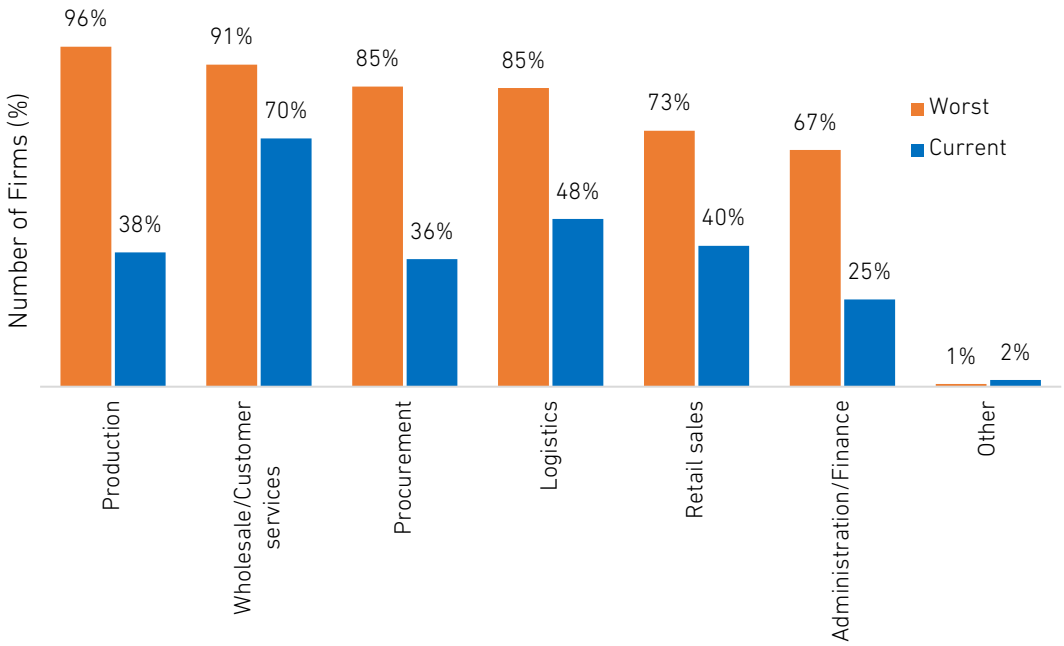

Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

Operational and financial pressures are closely linked. Many firms reported damage to inventories, infrastructure disruption, employee losses, and shortages of working capital, which together constrained production and service delivery. While the incidence of these constraints declined by the time of the survey, they remained significant, indicating incomplete and uneven recovery. Supply-side challenges, particularly difficulties in accessing raw materials and higher operating costs, also persisted, continuing to weigh on operations. By contrast, relatively few enterprises reported regulatory barriers, competitive gains, or increased demand, although relatively persisting, suggesting that positive spillover effects were limited and recovery has been driven primarily by stabilisation rather than expansion.

Figure 5.26 shows that functional disruptions were widespread across core business operations during the worst period following the Mandalay Earthquake. Production was the most severely affected function, reported by 96% of firms, followed by wholesale and customer services (91%). Procurement and logistics were also heavily disrupted, each affecting 85% of enterprises, indicating major breakdowns in supply chains and operational flows at the peak of the crisis. While disruptions eased over time, they

remained significant at the time of the survey. Wholesale and customer services continued to be affected by 70% of firms, while logistics (48%) and retail sales (40%) showed persistent constraints. Production disruptions declined markedly to 38%, indicating partial operational recovery, whereas administration and finance functions were less affected overall, falling from 67% at the worst moment to 25% currently.

Figure 5.26. Functional Recovery from the Worst Moment to the Current Period




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

Overall, the fastest recovery occurred in production, while marketing, sales, and distribution functions recovered more slowly, suggesting that constraints related to market access, service delivery, and logistics continue to limit full normalisation of business operations. This pattern highlights that, even after physical assets are partially restored, functional bottlenecks in sales, distribution, and supply chains remain key obstacles to MSME recovery.

Figure 5.27 indicates that MSMEs' recovery is being shaped most strongly by market- and supply-side disruptions. Many firms identify declining customer demand, increased logistics and transportation costs, and limited access to raw materials and suppliers as major challenges. These patterns suggest that weak demand conditions and only partial restoration of supply chains remain core obstacles, slowing firms' ability to return to pre-crisis operations. Damage to premises and equipment also continues to affect a significant share of businesses, particularly those facing high repair costs or delays in accessing replacement inputs.

## Box 6. Disruption and Recovery Durations

Based on multivariate econometric analyses, survey evidence from 270 MSMEs indicates that post-disaster business operations were closed or disrupted for an average of 39.6 days. Survival capacity under significant income loss was limited: nearly two-thirds of firms reported they could endure only 1 to 3 months, and roughly 16% could survive 4 weeks or less.

Disruption durations varied across locations and industries even after controlling for firm size. In particular, the township of Chan Aye Tharzan and the textiles industry exhibited statistically significant longer closures relative to their baselines (Aung Myay Tharzan and food processing, respectively). Notably, there was no significant difference in disruption length across micro, small, and medium size categories in the controls-only specification.

Financing conditions and risk-management instruments had a strong influence on recovery speed. Firms without insurance tended to experience significantly longer business disruptions than those with some form of coverage, highlighting the role of risk-sharing mechanisms in supporting timely recovery. Enterprises that identified a lack of finance as a critical constraint also faced markedly slower recovery, reflecting the importance of liquidity in restoring operations. By contrast, firms able to rely on their own savings generally reopened more quickly, suggesting that immediate access to internal funds reduced dependence on delayed external support. Assistance from NGOs was associated with faster recovery, likely due to its timeliness and operational flexibility. In contrast, reliance on government financing was associated with longer disruption periods, plausibly reflecting the size of impacts, administrative processes and timing frictions rather than the intent or value of public assistance itself. Regulatory constraints further slowed recovery, with increasing levels of regulatory impediments associated with progressively longer disruptions.

### Discussions

The concentration of firms' survival horizons in the 1- to 3-month window, combined with an average ~40-day disruption, implies that a sizeable segment of MSMEs stands close to a liquidity cliff following a major shock. In such contexts, even moderate delays in relief disbursement can convert temporary liquidity stress into solvency risk. The absence of significant size effects suggests that vulnerabilities are broadly shared across the MSME spectrum; micro and small firms do not appear uniquely fragile relative to medium-sized counterparts once location and industry are taken into account. This pattern underscores that place-based exposure (township) and sectoral characteristics (e.g. textiles), such as supply chain rigidity, inventory turnover, and labour intensity, are more salient determinants of downtime than headcount alone.

The financing coefficients point to a nuanced liquidity channel. Own savings likely allow immediate cash-flow bridging with minimal transaction costs or administrative lags, thereby shortening downtime. NGO support may be designed as rapid, small-ticket grants with simplified procedures, which can be deployed quickly and targeted to working-capital needs, again compressing disruption duration. By contrast, the positive association between government financing and longer closure is consistent with timing and compliance frictions, applications, verification, and disbursement may arrive after the crucial cash-flow window has closed, or be earmarked for reconstruction activities that require more time to mobilise. This interpretation is reinforced by the strong positive association between regulatory obstacles and prolonged disruption, highlighting how procedural burdens can blunt the efficacy of otherwise well-intentioned public support.

Finally, the robust penalty associated with absence of insurance underscores the value of risk-transfer mechanisms in accelerating post-disaster liquidity. Even partial coverage can facilitate immediate repairs and inventory replacement, curtailing the tail of downtime. Yet, if insurance penetration is low, it may reflect affordability, product design (e.g. exclusions), or trust deficits, all of which warrant market and policy responses.

### Implications

Liquidity timing matters as much as liquidity volume. Programmes that deliver funds quickly, even if in smaller amounts, appear more effective at reducing downtime than larger packages with procedural delays. This is consistent with the observed advantage of own savings and NGO grants over slower-moving instruments.

Regulatory streamlining is a recovery tool. The positive gradient from moderate to major regulatory issues on disruption length suggests that process simplification can be as impactful as direct financial assistance.

Insurance is a critical complement. Firms without coverage face measurably longer closures, implying substantial social returns to policies that expand MSME access to affordable, payout-reliable insurance products.

Spatial and sector targeting improves cost-effectiveness. Township and industry effects argue for place-based and sector-tailored interventions (e.g. for textiles) to address localised constraints and supply-chain rigidities.

Firm size is not a sufficient targeting criterion. The lack of significant size effects (conditional on controls) suggests that eligibility cutoffs by employment alone may miss at-risk firms and dilute programme impact.

### Policy recommendations

i). Establish rapid-disbursement working-capital lines ('first-72-hours liquidity').

Create pre-approved, parametric or trigger-based micro-credit or grant facilities that release small working-capital tranches within days of a declared disaster, verified by simple criteria (e.g. geospatial exposure, utility outage records). Prioritise unrestricted working capital for immediate restart expenses (repairs, inventory, payroll). Tie subsequent tranches to minimal ex-post documentation to limit fraud while preserving speed.

ii). Streamline recovery compliance through 'single-window, light-touch' procedures.

Consolidate permits, inspections, and relief applications into a single digital/onsite interface with standardised forms and time-bound service-level agreements. Introduce presumptive approvals for low-risk activities and defer non-critical compliance checks by several weeks to avoid prolonging closures. The objective is to eliminate the ~27–59 days penalty associated with moderate/major regulatory issues.

iii). Expand MSME disaster-risk insurance via public–private partnerships.

Subsidise premiums for micro and small firms, support index-based or parametric products

(e.g. rainfall, flood depth, windspeed) to accelerate payouts, and require clear, enforceable claims timelines (e.g. <14 days). Couple insurance with risk-reduction audits that lower premiums when firms adopt mitigation measures (e.g. elevating equipment, inventory protection). This tackles the ~21-day disruption gap observed for uninsured enterprises.

iv). Calibrate government finance toward speed and fit-for-purpose design.

Where public financing is essential, shift a portion from capital-intensive reconstruction loans to small, fast cash-flow instruments (e.g. e-vouchers for inputs; short-tenor revolving funds) administered through local financial institutions and fintech channels with simplified KYC for disaster zones. Monitor application-to-disbursement time as a core KPI to avoid the observed association between government financing and extended downtime.

v). Target place- and sector-specific bottlenecks.

Deploy mobile recovery teams to the most affected townships and sectors (e.g. textiles) to coordinate infrastructure repairs, supplier matching, and logistics rerouting. Use temporary warehousing and pooled procurement for sectors with perishable inputs or just-in-time processes to cut restart lags.

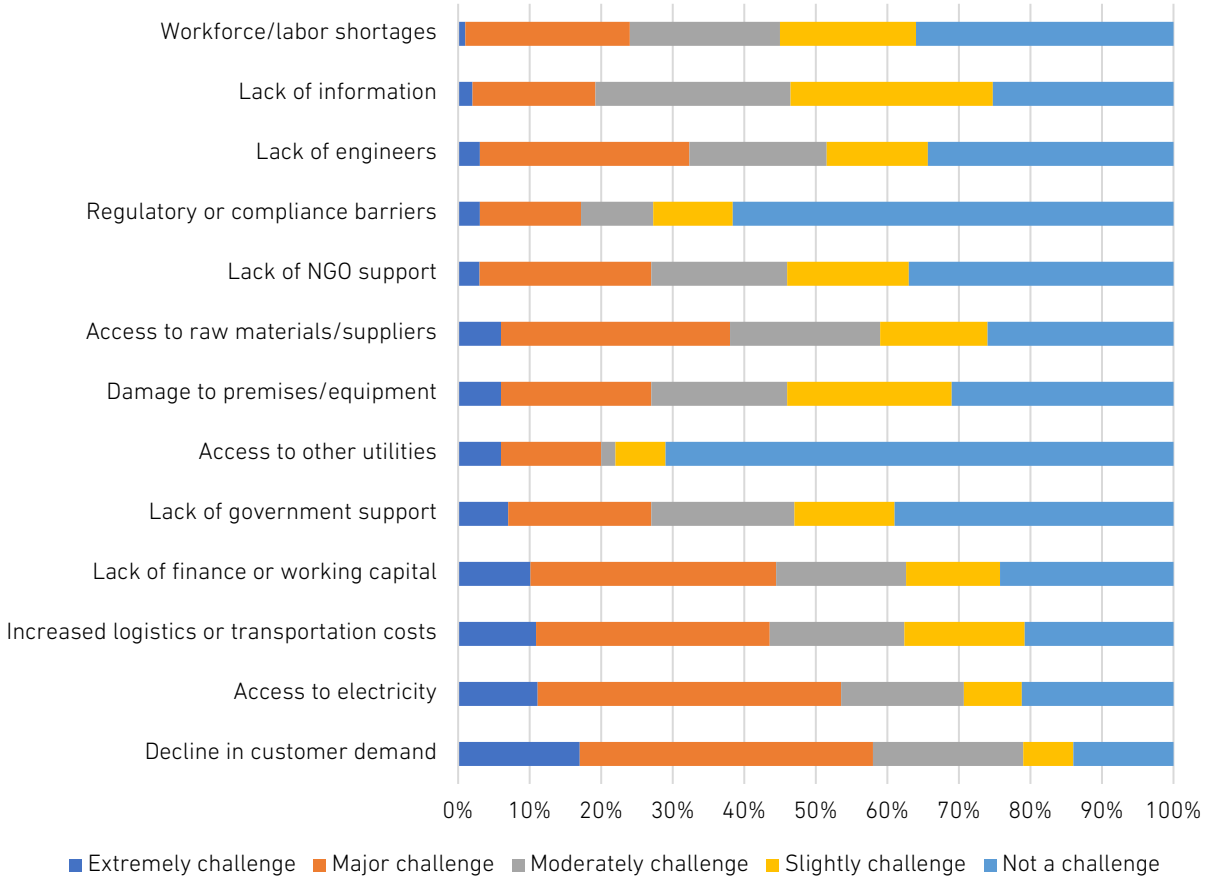
vi). Promote liquidity self-insurance for resilience.

Encourage MSMEs to build emergency reserves through matched-savings schemes or tax-advantaged disaster accounts. Provide simple planning tools that estimate the firm-specific 'days of cash' threshold based on historical operating expenses, aligning with the survey's survival-horizon distribution.

Limitations and next steps

Results reflect cross-sectional associations and may be sensitive to unobserved factors (e.g. pre-disaster financial health, supply-chain integration). Future work should test robustness with alternative specifications, explore endogeneity around financing choices (e.g. selection into NGO or government programmes), and examine timing data on application, approval, and payout to directly quantify the 'speed premium' in recovery. Group comparisons by subsector and township, flagged in the slides as a next task, would help refine targeting and programme design.

Figure 5.27. Challenges for MSMEs' Recovery




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

Infrastructure and utilities constraints add another layer of difficulty. Access to electricity stands out as a critical bottleneck, with many firms reporting major or extreme challenges related to ongoing power instability. These disruptions raise operating costs and cause production delays, particularly for manufacturing and services requiring a stable energy supply. Lesser but still notable concerns include difficulties accessing other utilities such as water or waste services, which further complicate efforts to resume normal operations.

Financial constraints remain amongst the most severe pressures holding back recovery. Lack of finance or working capital is one of the top-reported challenges, with a high share of MSMEs identifying it as major or extremely challenging. This reflects persistent liquidity shortages, limited access to affordable credit, and disrupted cash flows. Gaps in government support, NGO assistance, and information access add to these pressures, highlighting institutional and coordination weaknesses that leave many firms without the resources or guidance needed to overcome ongoing disruptions.

Access to formal credit remains limited for many enterprises due to a combination of structural and procedural barriers. Loan applications are often constrained by borrowers' inability to provide acceptable collateral or qualified guarantors, restricting their eligibility under conventional banking standards. Moreover, inadequate or poorly documented business plans undermine the credibility of applications and weaken lenders' confidence

in the borrowers' repayment capacity. These difficulties are further intensified by complex regulatory procedures and administrative inefficiencies within financial institutions, which extend processing times and discourage MSMEs from seeking bank financing (ESCAP, 2012).

Overall, the findings show that MSME recovery is being shaped by a combination of market and supply-chain weaknesses, infrastructure and utility unreliability, and acute financial constraints. These pressures are further compounded by limited public or external support or assistance, which leaves many firms without the institutional backing needed to navigate prolonged disruptions. As a result, recovery remains slow and uneven across sectors and firm sizes.

### Box 7. Helping Small Businesses Survive Major Income Loss

The survey findings show that the businesses experiencing the sharpest income losses were simultaneously confronted with a range of overlapping challenges. These included rising logistics costs, difficulties navigating business licensing procedures, disruptions in transport and customs processes, exchange-rate instability, and area-specific obstacles in the places where they operate. Together, these factors were strongly associated with the depth of income loss, indicating that financial distress amongst MSMEs rarely arises from a single cause but instead reflects multiple pressures occurring at the same time. Because the crisis created simultaneous shocks to supply chains, workers, and markets, effective policy must address these challenges together, not in isolation.

*Rising logistics costs and administrative burdens hurt firm stability.*

A strong association appears between income loss and indicators such as:

'Logistics cost'
'Business licensing and permits – fees'
'Business licensing and permits – administrative procedures'

Firms reporting higher logistical expenses and more difficulty navigating licensing procedures were more likely to experience severe drops in business income. These factors alone cannot explain income loss, but they significantly worsen financial strain.

*Transport, customs, and exchange-rate pressures magnify losses.*

Indicators such as:

'Customs and trade regulations'
'Transport and logistics'
'Exchange rate'

show clear statistical links with increased income loss. This suggests that disruptions in moving goods, dealing with customs procedures, and managing currency fluctuations all increase operational uncertainty. These challenges were especially pronounced amongst businesses dependent on imported inputs or regional transportation networks.

*Tax administration difficulties add strain.*

'Tax collection process'

also appears amongst the most closely associated factors. This finding indicates that firms facing inconsistent, unclear, or burdensome tax procedures often experience financial stress more acutely.

*Vulnerability is highly place-based*

The largest single association in the entire dataset is:

'Survey area'

This means geography matters. Some areas faced significantly worse conditions for business continuity, whether due to infrastructure damage, limited access to markets, or localised regulatory or administrative barriers.

This confirms that location-targeted policies are essential.

*Policy recommendations*

Drawing from these evidence patterns, the following measures can help small businesses survive crises involving major income shocks.

i). *Improve cash flow and reduce immediate operating costs*: Because rising logistics costs and lower sales most directly correlate with income loss, governments should prioritise:

- Emergency business grants for rent, utilities, and inventory
- Temporary tax relief and simplified payment schedules
- Low-interest working capital loans with flexible terms

These measures help firms bridge the most difficult period and prevent permanent closure.

ii). *Streamline licensing and administrative procedures*: Given the association between income strain and licensing/permit burdens, policymakers should:

- Reduce or temporarily waive licensing fees
- Shorten approval timelines for business permits
- Provide clear, streamlined guidance through one-stop service centres

These administrative reforms immediately reduce the time and money firms must spend just to stay compliant.

iii). *Reduce logistics and customs bottlenecks*: Since 'transport and logistics' and 'customs and trade regulations' show strong correlations with business loss, authorities should focus on:

- Faster customs processing for MSME shipments
- Guaranteed transport corridors for essential goods
- Local supply-chain matching programmes to replace disrupted suppliers

Such steps improve predictability for firms and allow them to resume operations more quickly.

iv). *Support firms facing exchange-rate volatility*. Because 'exchange rate' concerns are closely linked to income loss, especially for import-dependent firms, policy options include:

- Facilitating access to stable foreign-exchange channels
- Providing financial literacy support for managing currency risk
- Offering temporary subsidies for essential imported inputs

These measures reduce uncertainty in pricing and procurement.

v). Deploy area-targeted recovery packages: The strongest association in the entire dataset, 'survey area,' shows that some locations suffered far more severe disruptions. Policies should therefore be geographically focused:

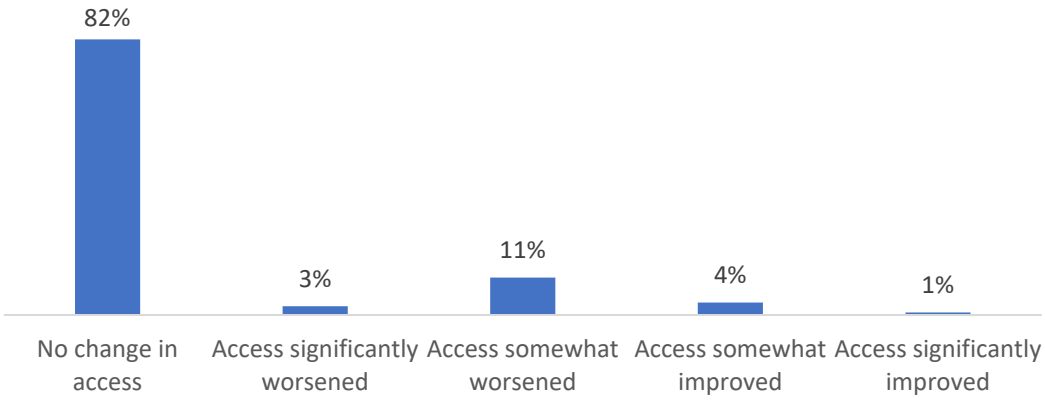
- Direct grants and infrastructure repair for the hardest-hit areas
- Area-based tax incentives
- Local recovery task forces to identify and resolve region-specific barriers

This ensures that resources reach the places where firms face the steepest obstacles.

The evidence demonstrates that small businesses struggling with severe income loss were simultaneously facing higher logistics costs, burdensome licensing processes, transport and customs obstacles, currency pressures, and location-specific disadvantages. These interconnected constraints mean that policies cannot be siloed. Effective support must bundle financial relief, administrative simplification, logistics restoration, and geographically targeted assistance. This integrated approach gives MSMEs the best chance of staying open, protecting jobs, and contributing to economic recovery.

Access to formal finance remained limited in the post-earthquake period (Figure 30). For the majority of MSMEs, access to credit and working capital showed no improvement following the disaster, with about 82% reporting no change. Amongst firms that experienced a shift, deterioration was more common than improvement, with 14% reporting worsened access compared to only 5% reporting improved access. Significant changes in either direction were rare. Overall, the findings indicate that while the earthquake did not alter financing conditions for most MSMEs, those affected were more likely to face tighter rather than easier access to finance, reinforcing liquidity constraints during recovery.

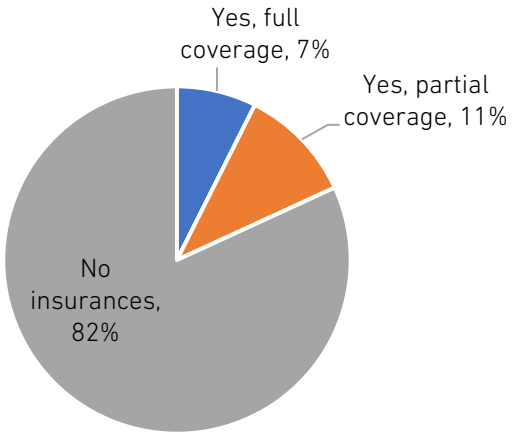
Figure 5.28. Access to Credit and Working Capital after the Earthquake




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

Insurance coverage amongst MSMEs remains extremely limited (Figure 5.29). About 82% of firms report having no insurance coverage, leaving most enterprises fully exposed to disaster-related losses. Only a small minority hold any form of protection, with 11% reporting partial coverage and 7% having full coverage. The low uptake of comprehensive insurance indicates that risk-transfer mechanisms are largely underutilised amongst MSMEs. As a result, enterprises relied primarily on internal coping strategies and informal support networks during recovery, heightening vulnerability to future shocks and underscoring the need to strengthen financial protection mechanisms.

Figure 5.29. Risk Insurance Coverage




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

## Box 8. Determinants of Insurance Coverage

Insurance coverage is a cornerstone of enterprise resilience, yet many MSMEs remain uninsured or underinsured. To understand which types of firms possess industrial insurance coverage, we analysed survey responses to 'an ordered measure of coverage levels' using a combination of descriptive analysis, rank-based statistics, ordered and multinomial logistic models, and a derived 'formality and scale' index. The analytical goal is to identify the structural, behavioural, and contextual attributes that most strongly predict whether MSMEs adopt and maintain comprehensive insurance.

### Key empirical patterns

*Insurance coverage is strongly associated with firm size, formality, and financial capacity*

Firms with greater scale and formality are substantially more likely to hold full or partial all-risk coverage. Variables most strongly associated with 'full coverage' include: (i) business ownership type; (ii) home-based business status; and (iii) firm size. Financial capacity also displays a sizeable rank correlation with insurance coverage, implying firms reporting stronger financial positions tend to have coverage.

*Insurance-purchasing behaviour is a powerful behavioural correlate*

'Purchasing insurance' is amongst the strongest informational predictors of insurance coverage, even when compared with size, employment, and financial metrics. This suggests that insurance adoption is driven not only by structural capacity but also by behavioural norms: firms accustomed to purchasing any insurance are much more likely to secure all-risk coverage.

*Results remain robust even after controlling for township-level differences*

Firm-level scale and formality remain the dominant predictors of insurance coverage, even after absorbing township heterogeneity. Township context matters, but it does not overturn the enterprise-level story.

*A 'Formality and Scale Index' offers a strong, parsimonious predictor*

We constructed an index from standardised values of:

- Full-time employees
- Firm size
- DICA registration
- Ownership, and
- Financials.

This composite captures a unifying concept: firm size, professionalisation, regulatory compliance, and financial strength. The index shows a clear, significant relationship with

insurance coverage: firms with higher formalisation/scale are much more likely to have stronger insurance coverage.

## Policy implications

*Insurance interventions must differentiate by firm scale and formality*

The statistical record is clear: firms that are more formalised, larger, better capitalised, or long-established are far more likely to hold all-risk coverage. Smaller, informal, or home-based firms appear structurally excluded from insurance markets. This suggests:

- Subsidised premiums or vouchers should target micro and home-based enterprises.
- Insurance literacy programmes should focus on firms with low formality scores.

*Behavioural nudges matter: support the habit of insurance purchasing*

Because 'purchasing insurance' is one of the strongest independent correlates of all-risk coverage, efforts to cultivate basic insurance habits, such as low-cost entry-level products, may create stepping-stones toward broader coverage.

*Township-level effects do not dominate; policies should be firm-centric*

Adjusting for township fixed effects shows that insurance uptake is primarily a function of firm-level characteristics, not geography. This means:

- National or regional policies, rather than township-specific schemes, may be more effective.
- However, township-based service delivery channels (e.g. mobile agents) can still support uptake.

*Use the Formality/Scale Index to triage firms for targeted support*

The index offers a simple but empirically grounded mechanism for prioritising firms:

- Low-index firms: prioritise for subsidised insurance, simplified registration pathways, and bundled risk-management services
- Mid-index firms: target with awareness campaigns and modest premium co-financing
- High-index firms: encourage through incentives to adopt comprehensive risk-transfer instruments (business continuity products, catastrophe riders)

*Integrate insurance expansion with broader recovery and risk-reduction agendas*

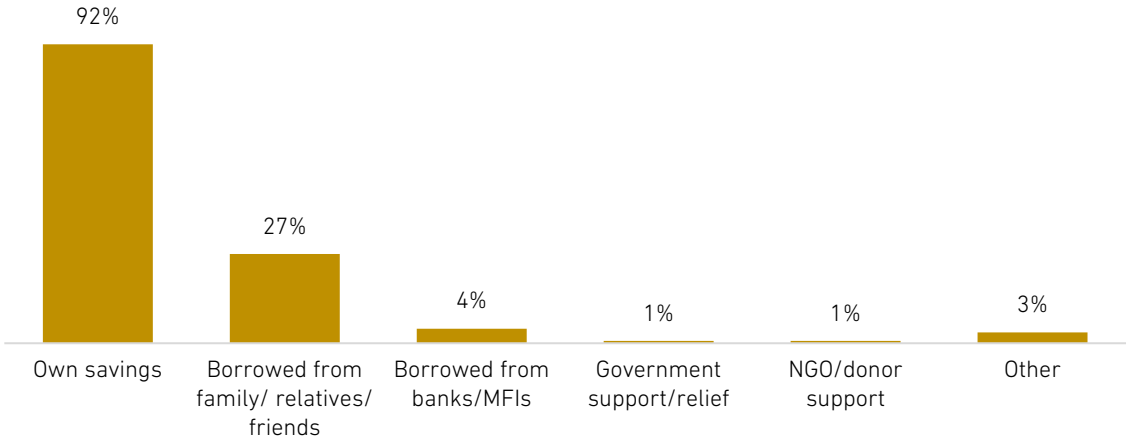
Because insurance uptake correlates strongly with structural characteristics (employment levels, business size, formality), insurance expansion cannot be treated as a standalone sector. It must be coordinated with:

- MSME formalisation programmes
- Access-to-finance initiatives
- Business registration support (e.g. DICA processes)
- Workforce expansion or skills-upgrading schemes.

The statistical findings present a coherent narrative: insurance coverage amongst MSMEs is structurally and behaviourally patterned, not random. Larger, more formal, better capitalised, and more professionalised firms, and those that already engage in basic insurance purchasing, are far more likely to secure all-risk industrial insurance coverage. For policymakers, this means that improving insurance uptake in the MSME sector requires a dual strategy: (1) structural inclusion of small and informal firms into financial and regulatory systems, and (2) behavioural nudges and service-delivery innovations that normalise insurance purchasing.

Consistent with these constraints, MSMEs relied predominantly on internal and informal financing sources to support recovery (Figure 5.30). More than 90% of enterprises used their own savings, underscoring a strong dependence on self-financing, followed by borrowing from family members, relatives, or friends. In contrast, formal financing channels such as bank loans, microfinance institutions, government programmes, or donor support were used by only a very small share of firms (around 1–4%). This financing pattern highlights persistent barriers to accessing formal finance during the recovery phase and explains the slow and uneven pace of MSME recovery.

Figure 5.30. Financial Resources for MSME Recovery




Note: MFIs stand for microfinance institutions.
Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

Business relocation following the earthquake was rare amongst MSMEs, with the overwhelming majority maintaining their original location. About 95% of firms report no relocation, indicating strong location persistence despite the shock. Only a small share relocated, primarily within the same township at around 4%, while moves to another township or to another state or region were negligible. This pattern suggests that relocation was not a common adjustment strategy, likely reflecting constraints related to fixed assets, customer linkages, or local supply chains. Overall, the findings indicate that most MSMEs absorbed the shock in place rather than through geographic relocation.

### Box 9. Understanding Access to Formal Lending

Formal credit plays a critical role in MSME recovery after natural disasters, supporting asset repair, stabilising cash flow, and reducing reliance on harmful coping strategies. However, following the Mandalay Earthquake, access to formal finance remained very limited. Most affected firms relied on self-financing or informal borrowing, underscoring significant barriers to formal credit under conditions of economic stress and infrastructure disruption.

Key findings

*Self-financing is strongly associated with formal borrowing.*

MSMEs drawing on personal/household savings were far less likely to seek regulated credit, consistent with limited financial literacy, collateral gaps, trust barriers, and structural credit rationing.

*Greater damage increases the likelihood of formal lending.*

Firms reporting higher overall impact and damage to premises/equipment were more likely to borrow formally, suggesting formal loans function as a 'last resort' when savings and informal networks are insufficient.

*Perceived access to affordable credit independently matters.*

Firms that view loan markets as accessible, and have prior relationships/experience, were significantly more likely to mobilise formal finance during crisis.

*Operational frictions and cost pressures discourage formal borrowing.*

Transport/logistics constraints, higher logistics/transport costs, and low demand correlate negatively with formal loan uptake, likely by undermining creditworthiness, margins, and repayment confidence.

*Multivariate evidence confirms the pattern.*

Strong negative drivers: reliance on own savings; heavy logistics costs; some sectoral product categories.

Strong positive drivers: damage to equipment/premises; perceived access to affordable credit; stronger financials; higher overall impact; respondent confidence.

Results remain robust when jointly controlled, underscoring multi-dimensional credit decisions.

Policy implications

*Reach savings-reliant MSMEs (highest exclusion risk)*

- Recovery micro-loans with simplified documentation
- Zero-collateral/partially guaranteed products
- Bundled credit-plus-grant packages for the smallest firms
- Proactive lender outreach specifically to savings-dependent enterprises

*Expand and fast-track lending for firms with verified damage*

- Rapid disbursement windows linked to municipal/NGO assessments
- Products tailored to asset repair/equipment replacement
- Dedicated recovery credit lines with usage-aligned terms

*Strengthen financial inclusion and perceived accessibility*

- Township-level/mobile credit services and streamlined applications
- Transparent terms, fee disclosures, and clear timelines
- Partnerships with chambers/associations/co-operatives for outreach

*Tackle operational cost burdens that suppress demand for credit*

- Temporary logistics subsidies or transport vouchers in affected corridors
- Working-capital support for disrupted supply chains
- Market-reconnection assistance to restore demand and cash flow

*Build financial confidence and capability*

- Focused financial literacy, advisory support, and mentorship
- Borrower readiness programmes to navigate documentation and underwriting

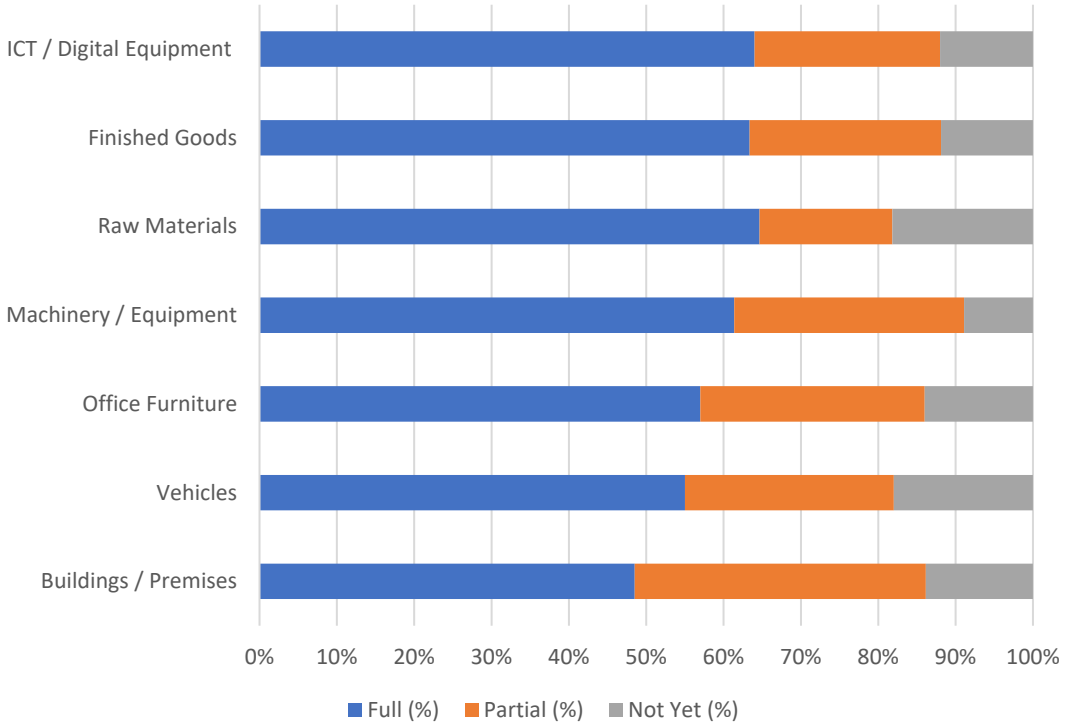
Access to formal credit reflects need (damage severity), capacity (financial strength), access (networks and perceived affordability), and constraints (logistics costs and demand pressures). Self-financing emerges as a structural barrier to formal engagement. A dual-track approach is recommended: (i) reduce structural barriers for small, savings-reliant, logistically burdened firms; and (ii) strengthen and streamline formal lending for MSMEs with documented recovery needs.

Figure 5.31 shows a varied pattern of asset restoration across categories, with most MSMEs reporting substantial progress but notable gaps in specific areas. Raw materials, finished goods inventories, and ICT/digital equipment exhibit the strongest recovery, with around two-thirds of firms achieving full restoration and only a small share indicating that these assets have not yet been restored. These categories largely consist of operational inputs or readily replaceable items, which helps explain the faster recovery.

Machinery and equipment, vehicles, and office furniture also demonstrate significant progress, with the majority of firms reporting full or partial restoration. However, the share of firms indicating these assets are not yet restored remains higher than for inventories and ICT equipment, reflecting higher replacement costs and longer repair or procurement timelines.

By contrast, buildings and premises remain the most challenging category. Only about half of firms report full restoration, while a comparatively larger proportion remains in partial restoration or not-yet-restored status. This highlights the persistent difficulty of rebuilding fixed physical structures, which typically require greater investment, longer construction periods, and more external support.

Figure 5.31. Asset Restoration by Category




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

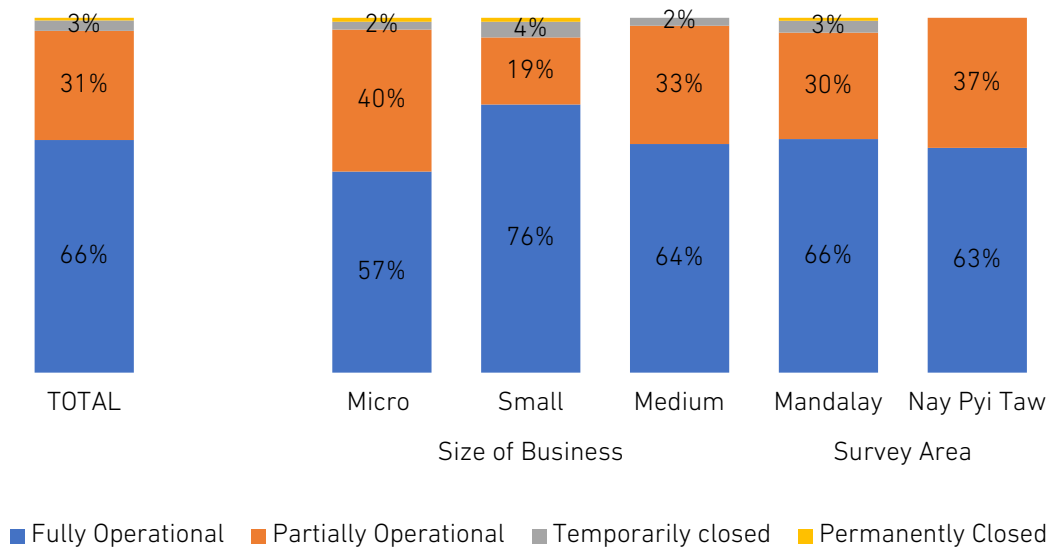
Overall, the figure suggests that MSMEs have largely regained their operational and movable assets, enabling partial recovery of business functions. However, the slower restoration of fixed physical infrastructure continues to constrain a full return to pre-disaster capacity.

Figure 5.32 shows that most MSMEs have resumed operations following the earthquake, although recovery remains uneven across firm sizes and locations. Overall, around two-thirds of enterprises have returned to full operation at the time this survey was conducted, while nearly one-third continue to operate partially, and only a very small

share reports temporary or permanent closure.

Recovery outcomes differ noticeably by enterprise size. Small enterprises demonstrate the strongest recovery, with more than three-quarters fully operational. Medium-sized enterprises follow, with around two-thirds having resumed full operations. In contrast, micro enterprises show slower recovery: just over half are fully operational, and a comparatively larger proportion continue to operate at reduced capacity.

Figure 5.32. Business Opening and Closure




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

Regional patterns are broadly consistent, though Nay Pyi Taw exhibits a slightly lower share of fully operational firms and a higher incidence of partial operations relative to Mandalay. Temporary closures remain limited in both regions, and permanent closures are minimal.

Overall, the figure suggests that while reopening has progressed quickly for most MSMEs, a significant share, particularly amongst micro enterprises, continues to operate below full capacity due to persistent constraints such as asset damage, supply chain disruptions, and financial limitations.

**Box 10. Why Early Recovery Finance Matters: The First 30–60 Days after a Disaster**

The first 30–60 days following a disaster represent a critical window for MSME survival and recovery. During this period, enterprises face an abrupt collapse in revenues alongside immediate and unavoidable expenditures, repairs to buildings and equipment, replacement of damaged inventories, payment of wages, and increased logistics and energy costs. For MSMEs with limited savings, weak insurance coverage, and constrained access to formal credit, this mismatch between cash inflows and urgent obligations often determines whether a business can stabilise, reopen partially, or exit permanently.

Evidence from the Mandalay Earthquake demonstrates that firms able to access liquidity early, whether through savings, informal loans, or timely external support, were more likely to resume operations quickly and preserve employment. In contrast, MSMEs that lacked access to finance during this initial recovery phase experienced prolonged closures, deferred repairs, asset deterioration, and loss of skilled workers. Delayed reopening frequently translated into lost customers and weakened market position, compounding the original shock.

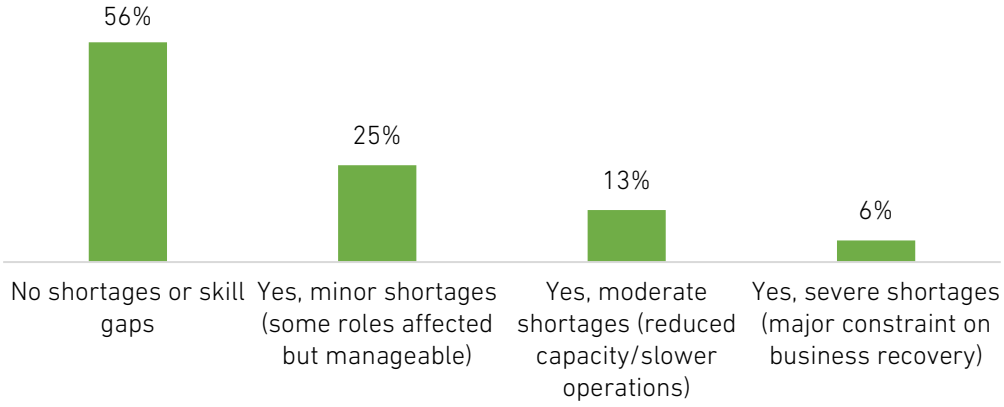
The importance of early recovery finance lies not only in speed, but in its function. Short-term liquidity enables firms to prevent temporary disruption from becoming structural damage. It allows enterprises to undertake critical repairs before assets depreciate further, re-establish supply relationships, and retain workers during periods of low or uncertain demand. Where such finance is unavailable or delayed, MSMEs are often forced to rely exclusively on household savings or informal borrowing, increasing indebtedness and transferring risk from enterprises to households.

The Mandalay experience also illustrates that conventional post-disaster financing mechanisms often miss this critical window. Loan schemes introduced months after a disaster arrive too late to influence survival decisions, while rigid collateral requirements and documentation standards exclude the very firms most in need of support. By the time formal finance becomes available, many MSMEs have already downsized, accumulated unsustainable debt, or ceased operations altogether.

These findings underscore the need for dedicated early-recovery financing instruments designed specifically for the immediate post-disaster period. Rapid-disbursement working-capital support, flexible repayment terms, and simplified eligibility criteria can significantly alter recovery trajectories when deployed within the first weeks following a shock. In this sense, early recovery finance should be understood not merely as financial assistance, but as a core stabilising intervention that anchors enterprise continuity, employment protection, and local economic normalisation.

Figure 5.33 shows that labour shortages were not a major constraint for most enterprises following the earthquake. More than half of firms reported no shortages, suggesting that workforce availability had largely normalised during the recovery period. About one-third experienced only minor shortages affecting specific positions, while moderate shortages were reported by a smaller share. Severe shortages were rare.

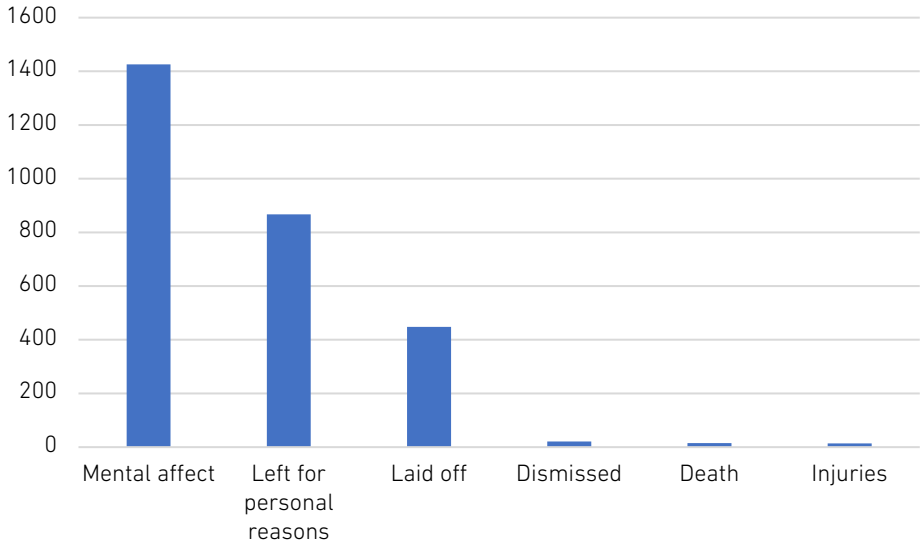
Figure 5.33. Labour Shortages




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

Figure 5.34 highlights that, despite generally adequate labour supply, the earthquake had substantial employee-related impacts. Mental health effects were the most widespread consequence, affecting 1,426 workers, indicating significant psychological stress amongst employees. Employment instability was also notable: 867 workers left voluntarily for personal reasons, and 448 were laid off as enterprises adjusted operations during the crisis.

Figure 5.34. Employee Impacts Resulting from the Earthquake



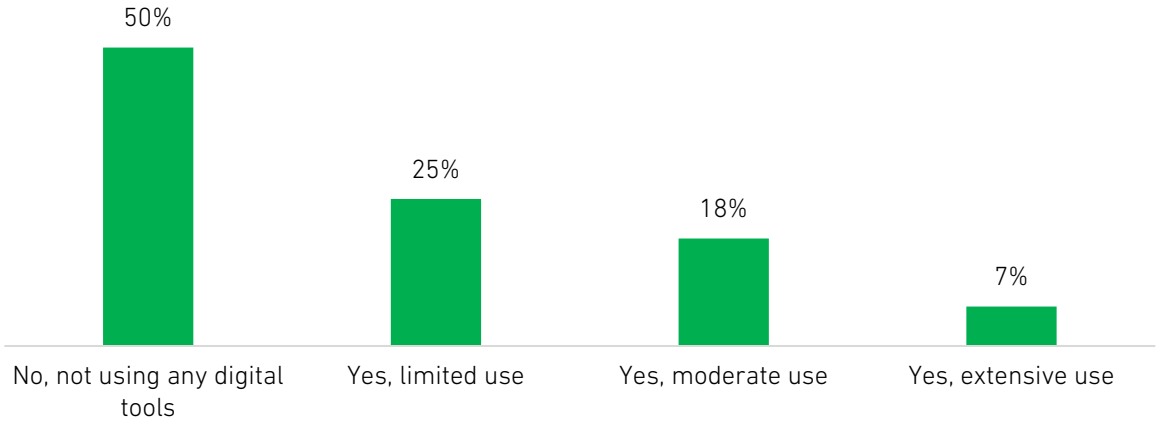

Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

Labour shortages varied somewhat by enterprise size. Approximately 60% of micro and small enterprises reported no shortages, although a small minority, about 10% of microenterprises and 4% of small enterprises, did face severe shortages. Amongst medium-sized enterprises with 50–199 employees, about half experienced minor or moderate shortages, but none reported severe shortages. For larger medium-sized enterprises (200–300 employees), the sample is limited (six firms), with only one reporting severe shortages.

Overall, smaller enterprises appear less affected by labour shortages, likely because they rely heavily on family labour and close social networks, which can provide flexibility during disruptions. This reliance on informal labour arrangements illustrates an important source of resilience amongst micro and small enterprises in the aftermath of the earthquake.

Digital tool adoption amongst MSMEs remained limited and uneven during the recovery period (Figure 5.35). About half of enterprises reported no use of digital tools, while roughly one-quarter reported limited use, around 18% moderate use, and only about 7% extensive use. Digital payments and online communication platforms were more commonly adopted than online sales channels, reflecting their immediate usefulness for maintaining customer and supplier relationships. Overall, the modest uptake of digital solutions particularly amongst smaller enterprises suggests persistent constraints related to digital skills, infrastructure reliability, and affordability, limiting the role of digitalisation in supporting MSME recovery.

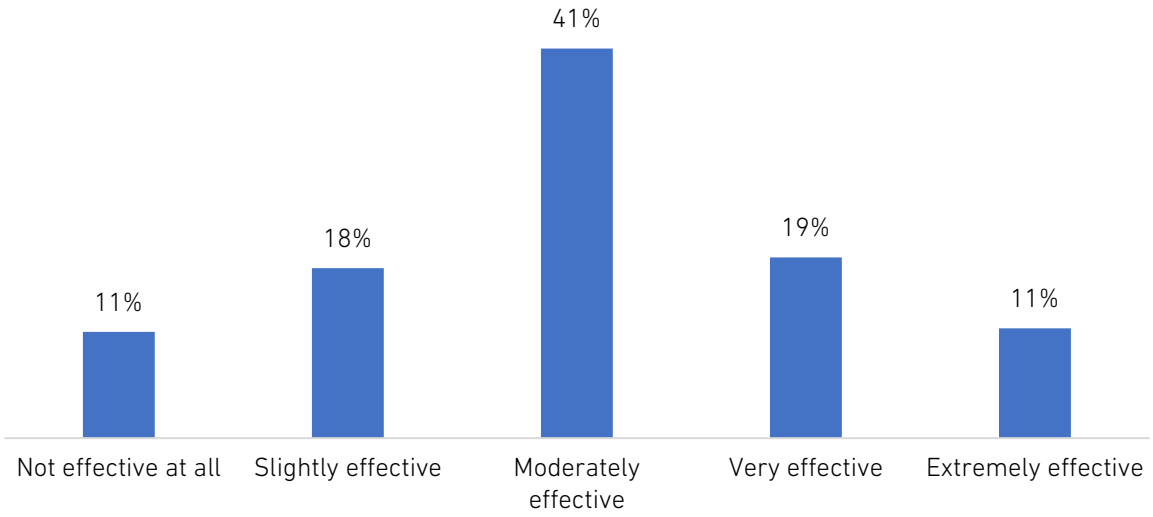
Figure 5.35. Usage of Digital Tool during the Recovery




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

Figure 5.36 illustrates MSMEs' mixed perceptions of government support during the post-earthquake recovery period. The most common assessment is one of moderate effectiveness, reported by around 41% of enterprises. This indicates that while government assistance was visible to many firms, its impact was often perceived as only partially sufficient. More positive views were less frequent: 19% of MSMEs rated government support as very effective, and 11% considered it extremely effective, suggesting that a smaller segment experienced strong or highly responsive assistance. At the same time, nearly 30% of enterprises viewed government support as slightly effective or not effective at all, reflecting persistent gaps in coverage, relevance, or timeliness of assistance.

Figure 5.36. Perceptions of MSMEs on Government Support




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

These perceptions align with the very limited reach of actual recovery support, where an overwhelming majority of MSMEs reported receiving no direct assistance, and only about 1% received financial or employee-related support. Overall, the figure underscores an uneven landscape of government assistance: while some MSMEs benefited meaningfully, many perceived support as insufficient, inconsistent, or inaccessible, highlighting a need for more comprehensive and better-targeted recovery mechanisms in future disaster responses.

**Box 11. Which MSMEs Received Post-Earthquake Support**

To understand which firms actually received support for recovery, and what distinguishes them from those left without assistance, the 2025 MSME Survey offers important insights. The survey asked each enterprise whether it had received any support following the disaster. Most MSMEs, about 98%, reported that they did not receive assistance, while only a very small fraction reported that they did. This pattern, while striking, also means that special analytical methods are needed to interpret the results reliably.[7]

[7] To address this, a rare-events logistic model was used to uncover the characteristics most strongly associated with support receipt. This approach allows us to draw meaningful conclusions even when very few firms reported receiving help. The model was deliberately kept simple and focused on intuitive, policy-relevant themes such as damage, loss, access to relief, financial strain, resilience practices, and basic business characteristics. It avoids technical complexity and uses only broad, comprehensible categories, similar to those used in field assessments and programme design. All interviewer identifiers and administrative fields were removed, ensuring that the model reflects genuine firm-level conditions rather than artefacts of survey administration.
Support receipt is extremely rare in the dataset, only about five firms, which means the results should be interpreted as directional rather than definitive. Even with bias-reduction methods, wide confidence intervals are inevitable. Some support may not be captured in the direct question but instead through financing information (e.g. government relief). This is why a sensitivity definition was included, and the main

## Key findings

*Support was concentrated amongst firms with the most severe impacts.*

The clearest pattern in the data is that firms reporting government relief as part of their recovery financing were far more likely to appear amongst those that had received assistance. This is in line with how relief often works in practice: once a business connects with a public relief mechanism, it becomes more visible, receives follow-up guidance, and is more likely to access additional support programmes. The analytical results confirm this dynamic, placing government relief at the centre of the support landscape.

Firms that reported losing one or more employees because of the earthquake also stand out. These enterprises show a strong association with support receipt, reflecting how disaster response efforts often prioritise businesses facing acute human impacts. Whether through compensation funds, emergency schemes, or targeted visits by local authorities, firms experiencing tragedy at the workplace tend to become priorities for intervention.

A third major factor is physical asset damage. When businesses report damage to essential tools, such as vehicles used for deliveries, office furniture and fixtures, or digital and ICT equipment, they are significantly more likely to have received support. This is consistent with typical post-disaster programming, where assistance is prioritised to firms whose operations cannot resume without replacing basic equipment.

*Resilience behaviours also matter.*

While damage and loss are key drivers, the analysis also shows that firms demonstrating risk-management and adaptation behaviours are more likely to be captured within the supported group. Firms that purchased insurance, for example, display a positive association with support receipt. Insurance penetration is generally low amongst MSMEs, so these businesses may be more engaged with formal institutions and therefore more visible to public recovery initiatives.

Similarly, firms that reported investing in digital or online sales channels also show higher odds of having received support. Following the earthquake, many enterprises explored new sales platforms or digital tools to re-establish market presence. These firms may be more proactive and more connected to business-support networks, increasing the likelihood that they access or seek recovery assistance.

*The role of business size, sector, and location makes some differences.*

Firm size, measured through the general size of the business, was included as a stabilising factor rather than a primary explanatory variable, and plays a modest role compared with the large effects of damage and human loss. The same is true for sector and geographic area, which were kept in the model in simplified form. Although these contextual characteristics do show some consistent directional effects, the very small number of supported firms means these patterns should be interpreted cautiously. Sector and area are best used to tailor assistance once key impact factors have been established, not as primary criteria for determining eligibility.

## Policy implications

conclusions held across both definitions. Sector and area effects were simplified to prevent over-fitting; these can be expanded when a larger sample of supported firms becomes available.

*Prioritise firms with the strongest evidence of impact*

Firms that experienced human loss or physical asset damage should remain at the top of eligibility lists. These indicators consistently align with receipt of support across all modelling approaches, even when data are extremely sparse.

*Build outreach around existing relief channels*

Because businesses that used government support or relief to finance recovery are far more likely to have received broader support, future programming should use these channels strategically, for example, by linking relief registries to follow-up grants, advisory services, or credit programmes.

*Encourage and reward resilience practices*

Insurance uptake and digital adoption both correlate with support receipt. Although these relationships are secondary compared to damage and human loss, they suggest opportunities for complementary programming, such as subsidised insurance premiums, digital commerce grants, or business continuity planning, to strengthen resilience for future shocks.

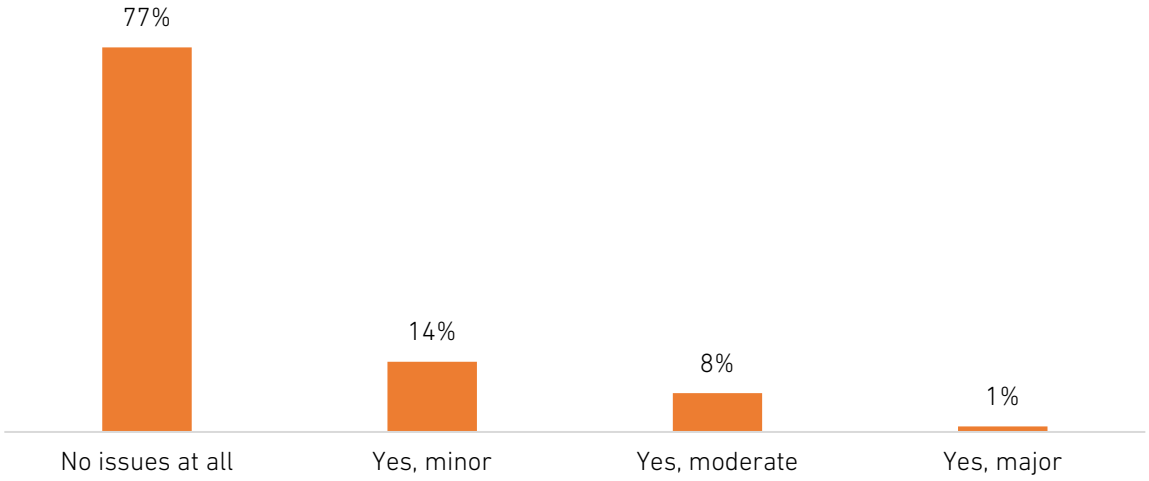
*Use sector and area to adjust delivery but lightly*

Sector and geographic area help fine-tune programme design (e.g. tailoring credit instruments, administrative support, or infrastructure interventions), but given limited data on supported firms, they should not be used as strict eligibility filters.

Even with very few supported firms, the story that emerges is clear. The enterprises that received assistance were those experiencing the most visible and severe impacts, the ones with human loss, asset damage, or direct engagement with government relief. These findings strongly support a targeting strategy that begins with verified impact and formal relief touchpoints, then incorporates resilience behaviours and contextual adjustments.

Figure 5.37 indicates that regulatory and compliance issues have not been a major constraint for most enterprises during the recovery period. More than three-quarters of enterprises report no regulatory or compliance issues at all, suggesting that formal requirements have generally not impeded recovery efforts. Around 14% of enterprises experienced minor issues, while about 8% reported moderate challenges. About 1% faced major regulatory or compliance problems. Overall, the pattern suggests that while regulatory and compliance constraints exist for a minority of enterprises, they have played a limited role in shaping post-earthquake recovery outcomes.

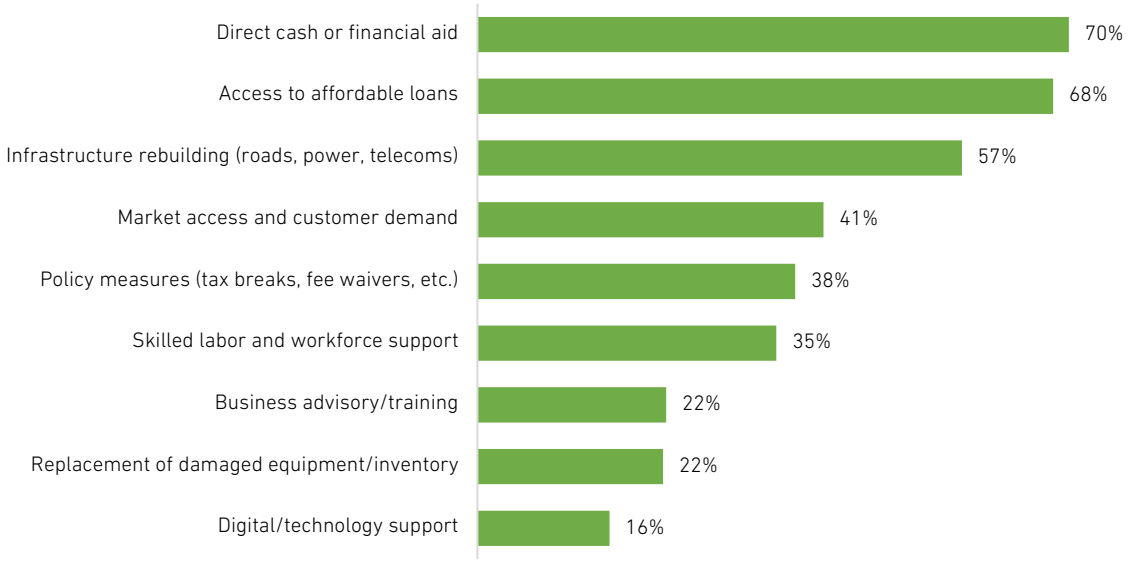
Figure 5.37. Regulatory and Compliance Issues Encountered during the Recovery




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

The findings indicate that MSMEs continue to face substantial gaps in recovery support, with financial and infrastructure needs most frequently identified as insufficient (Figure 5.38). Direct cash or financial aid (70%) and access to affordable loans (68%) are the most commonly cited gaps, underscoring persistent liquidity constraints and limited access to recovery finance. Infrastructure rebuilding, including roads, electricity, and telecommunications, is also reported as inadequate by more than half of enterprises, reflecting delays in restoring essential enabling conditions for business operations.

Figure 5.38. Recovery Support Remains Limited or Insufficient

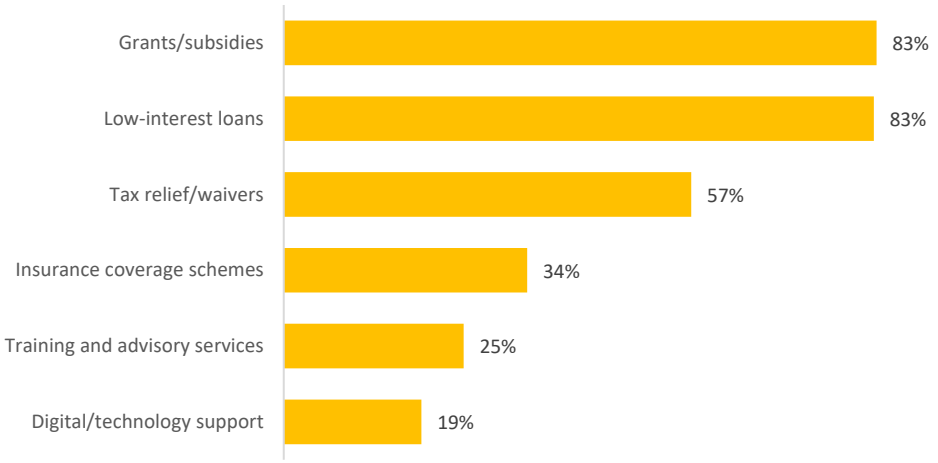



Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

Market-related challenges remain significant, with 41% of firms identifying insufficient support for market access and customer demand, while around one-third report gaps in policy measures and skilled labour or workforce support. Although less frequently cited, deficiencies in business advisory services, replacement of damaged equipment, and digital or technology support remain relevant for a notable share of MSMEs. Overall, the findings suggest that recovery has been constrained primarily by limited financial assistance and slow infrastructure restoration, compounded by market-access and workforce challenges that continue to weigh on MSME recovery.

Aligning with the above findings, MSMEs strongly prioritise financially focused recovery support if new programmes are introduced (Figure 5.39). Grants or subsidies and low-interest loans are each ranked as top priorities by more than 80% of enterprises, reflecting acute liquidity constraints and the need for affordable recovery capital. Tax relief or waivers are also widely supported, cited by over half of firms, while insurance coverage schemes are prioritised by around one-third, indicating growing recognition of risk protection despite currently low coverage. By contrast, training and advisory services and digital or technology support receive lower priority, suggesting that enterprises place the greatest value on immediate and tangible financial assistance in the recovery phase.

Figure 5.39. Preferred Recovery Support Programmes for the Future Hazards




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

Overall, MSME recovery has been constrained by financial vulnerability, limited risk-transfer mechanisms, and uneven access to support, resulting in gradual and uneven recovery trajectories. While many enterprises have resumed operations, persistent liquidity shortages, weak demand, and insufficient external assistance continue to limit the speed and sustainability of recovery, underscoring the need for recovery programmes centred on accessible financial support complemented by longer-term resilience measures.

## Box 12. Understanding Support Needs

While many firms share common struggles after a major shock, the type of support that is 'most useful' varies sharply depending on the size of the business, the sector it operates in, and where it is located. These differences are essential for shaping effective recovery policies.

### Key findings

Nearly half of all firms, 48.5%, said that direct cash or financial aid was the single most useful support type for their recovery. Cash was by far the dominant choice, but the deeper story lies in who needed cash and why.

*Smaller firms depend on cash to survive.*

The relationship between firm size and support needs was unmistakable. As firm size increased, the likelihood that a business identified direct cash or financial aid as its most useful support dropped sharply. This is a large and meaningful.

In everyday terms, the smallest firms needed cash immediately. These are micro and small enterprises most likely to suffer sudden revenue losses, damaged inventory, and limited access to financing. Cash is not merely helpful for them; it is essential for staying afloat.

*Larger firms look for operational and policy support instead.*

For medium and large firms, cash is not the most pressing need. Instead, these businesses gravitate toward non-cash support, such as credit restructuring, help repairing supply chains, or assistance navigating administrative hurdles. This shift appears in the model through rising probabilities associated with non-cash categories as firms become larger.

These businesses often have more complex operations, more employees, and deeper linkages to many suppliers and customers. Their recovery depends less on immediate cash injections and more on restoring functionality: replacing equipment, re-establishing logistics, reconnecting with utility services, or expediting permits.

*Sector differences are pronounced and persistent.*

Sector effects were amongst the most striking findings. Some sectors, e.g. food, textiles and leather, were much more likely to prioritise cash support. Some industries face deeper liquidity challenges, possibly because they rely heavily on working capital or carry inventory that was damaged or lost during the earthquake. These patterns make a strong case for sector-specific design, with more liquidity directed to vulnerable industries, and more operational or regulatory support directed to others.

*Geography matters: recovery conditions vary by area.*

Recovery needs also varied significantly across locations. Nay Pyi Taw shows a high likelihood of preferring a non-cash support type. This suggests that some areas faced different conditions, such as:

- Greater physical damage
- More disrupted markets

- Differences in local administrative capacity

A blanket, nationwide recovery package cannot fully account for these realities. Area-specific policies, targeted to the conditions of each region, would yield better results.

*Size, sector, and area interact in important ways.*

Our analyses revealed strong interactions: the effect of sector or location depends on the size of the firm. In several cases, larger firms within the same sector or area expressed markedly different support preferences than micro-firms operating in the same environment. This means policies should ideally be tailored not only by sector or area but also by firm size within those groups. The findings point toward a more nuanced approach to MSME support: one that moves beyond universal recovery packages and instead focuses on the real differences across firms.

Policy recommendations

*Support micro and small firms with cash first.*

These enterprises are the most vulnerable and the most reliant on liquidity. Small, fast cash transfers or micro-grants can keep them operating during the most difficult weeks.

*Provide larger firms with operational and policy support.*

These firms recover faster when governments help them solve logistical and administrative challenges, rather than offering blanket cash assistance.

*Tailor support by sector.*

Some industries need cash; others need credit, inputs, or administrative relief. Recovery programmes should reflect this diversity rather than offering identical support to all sectors.

*Adjust support by location.*

Conditions on the ground vary widely. Some districts need cash-heavy interventions, while others may benefit more from structural or administrative help.

*Sequence support over time.*

Businesses' needs evolve through three stages:

i). Immediate liquidity

ii). Administrative and financial relief

iii). Long-term strengthening: markets, technology, and productivity

The findings lead to a simple but powerful conclusion: MSME recovery is not uniform. Firms' needs differ sharply based on structural characteristics. Micro and small businesses need cash. Larger businesses and certain sectors need operational support. Some areas require cash-heavy interventions, while others need help restoring market conditions or administrative services. Policies that reflect these differences, rather than treating all firms the same, will make recovery efforts more effective, more efficient, and more equitable.

## Box 13. Effectiveness of Government Support

Understanding how MSMEs judge government effectiveness after a major disruption is central to designing remedies that are both targeted and credible. In this analysis, we examine survey item, 'Overall, how effective was the government…?', treated as a five-level ordered response. In the sample (n=270), responses span the full scale with a clear central tendency, most firms choose the middle category, indicating that perceptions are neither uniformly critical nor uniformly positive, but instead distributed across a spectrum of experiences.

To move beyond simple tabulation, we combined: (i) rank-based correlations and mutual-information rankings; (ii) fixed-effects multinomial models with cluster-robust standard errors to absorb enumerator and township heterogeneity; and (iii) an ordered-logit specification with finite-difference average marginal effects to quantify how key policy and operating conditions shift the probability of rating the government more or less effective. Together, these approaches yield a consistent and interpretable picture of what drives the assessment.

### What drives higher government-effectiveness ratings?

*Regulatory salience and preparedness are strongly implicated*

The single most robust pattern in the rank-order evidence is that firms flagging regulatory restrictions tend to assign higher effectiveness scores. Both the business-model module and the shock-channel module point in the same direction. Likewise, firms reporting that they were well prepared for conflict-related problems are more likely to rate government effectiveness higher. These results appear counter-intuitive only on the surface; a more plausible reading is that where regulation and preparedness are salient, public action is visible and thus more likely to be recognised by respondents in their effectiveness judgments.

*Operational constraints, fuel supply, transport, and logistics, coincide with higher ratings*

Multiple indicators of operational stress exhibit positive associations with government effectiveness: petrol supply constraints transport/logistics constraints, and increased logistics costs. In such environments, the state's role in enabling mobility, inputs, and functioning supply chains is both more consequential and more observable, which plausibly contributes to higher perceived effectiveness even when frictions remain.

*Government support programmes matter*

Public actions such as tax/financial incentives and market-access support carry substantial information about the government effectiveness assessment in both the correlation ranking and the ordered-logit average marginal effects. The marginal-effects results are especially instructive: moving up one step on these support measures increases the probability of a higher government-effectiveness rating and reduces the probability of lower categories, a pattern consistent with programme visibility and perceived relevance to firm needs.

*Enterprise profile (age, size, and managerial experience) shapes perceptions*

Mutual-information rankings underscore that longer-established firms, firms with larger workforces, and firms led by more experienced managers evaluate government effectiveness

higher than do younger, smaller, or less experienced enterprises. It reflects differing levels of exposure to regulatory systems, service interfaces, and programme visibility. Heterogeneous exposure to regulatory systems, service interfaces, and programme eligibility criteria likely contributes to these profile-driven differences.

*Do these patterns survive adjustment for enumerator and geography?*

Yes. To guard against spurious inference from interviewer behaviour or location, we estimated multinomial logit models with: (a) interviewer fixed effects and cluster-robust standard errors; and (b) township fixed effects with clustering by township. In both specifications, the qualitative story holds: regulatory environment, operational constraints/costs, downtime, and enterprise profile remain central correlates of higher government effectiveness ratings.

*How much do specific levers move perceptions?*

The ordered-logit model enables a direct read-out of policy-relevant shifts. Interpreting one-standard-deviation (or one-category) increases:

Costs and constraints, including input/logistics costs and downtime, push probability mass toward higher government-effectiveness categories. Public actions, tax incentives and market-access support, also raise the likelihood of higher government-effectiveness ratings.

These average marginal effects provide the most policy-salient quantification: as constraints intensify or as targeted support increases, perceived government effectiveness rises measurably.

*Are the results driven by one sector or size class?*

Subgroup ordered-logit models for the largest sectors and for firms split by size bands produce comparable fit and accuracy, indicating the main relationships are not confined to a single sector or to micro vs. larger firms. The structural themes, regulation, costs/constraints, downtime, and public incentives, are general within the MSME landscape examined.

## Policy implications

*Lean into regulatory clarity and communication.* Because 'regulatory restrictions' travel with higher government-effectiveness evaluations, reforms that improve clarity, predictability, and communication can capitalise on this visibility, reinforcing the perception of an active, responsive state.

*Prioritise operational bottlenecks*. Fuel, transport, and logistics constraints are tightly bound to government effectiveness. Temporary fuel-stabilisation measures, transport vouchers, and facilitation at key nodes may yield large perceptual returns, alongside productivity benefits.

*Scale targeted programmes with demonstrated perceptual lift*. Tax/financial incentives and market-access support meaningfully increase the probability of higher government-effectiveness ratings; simplifying access pathways and tailoring to MSME capacity could magnify their impact.

*Differentiate by enterprise profile*. Older, larger, and more experienced firms perceive government differently. Segmented communication and eligibility design can enhance perceived fairness and relevance across the MSME spectrum.

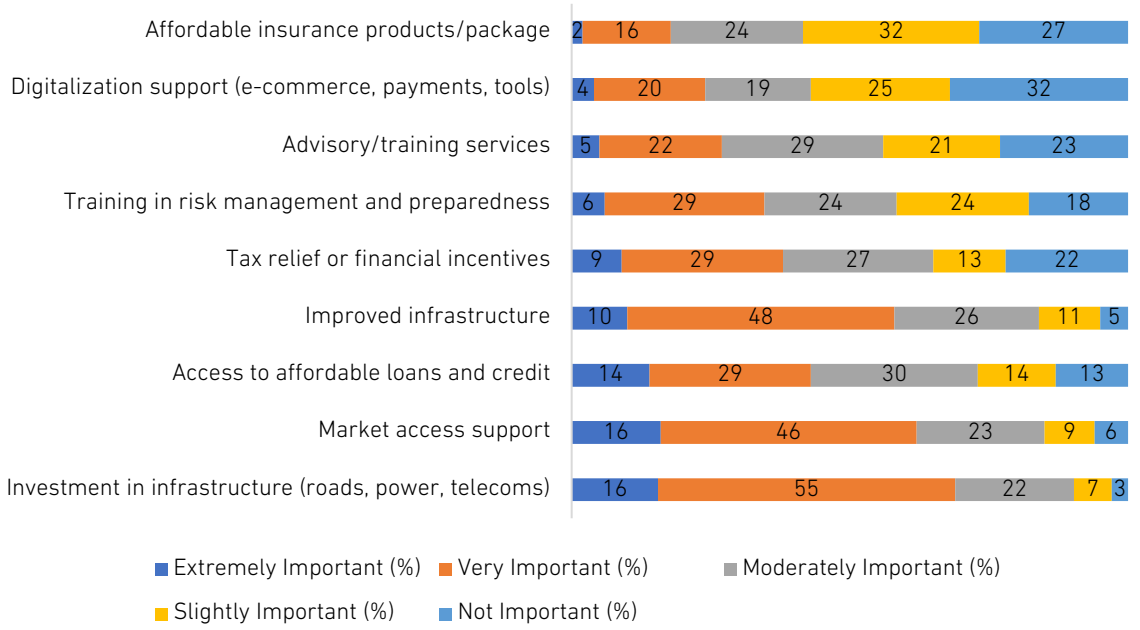
MSMEs tend to judge the government as more effective where regulation and preparedness are salient, where operational constraints and costs are binding, and where visible public supports (tax incentives, market access) are present. Far from a paradox, this pattern reflects how policy salience and programme visibility shape perceptions in the very settings where state action is most consequential for business continuity. These insights offer a practical blueprint: reinforce clarity and responsiveness in regulatory and operational domains, and scale support instruments that MSMEs can readily perceive and use.

## 6. Future Business Prospects

This subsection examines how MSMEs assess their prospects following the earthquake and the measures they plan to adopt to accelerate their recovery and strengthen their resilience. It focuses on resilience priorities, confidence in business survival and growth, and planned adaptive actions, providing insight into MSMEs' forward-looking behaviour in a post-disaster context.

MSMEs place the greatest importance on foundational enabling conditions when considering resilience to future shocks (Figure 5.40). Infrastructure investment emerges as the top priority, with around 71% of enterprises rating it as very or extremely important, followed by market access support (about 62%) and improvements in basic infrastructure services (around 58%). These results indicate that firms view functioning markets and stable infrastructure and as critical prerequisites for resilience.

Figure 5.40. Important Interventions for Building Resilience

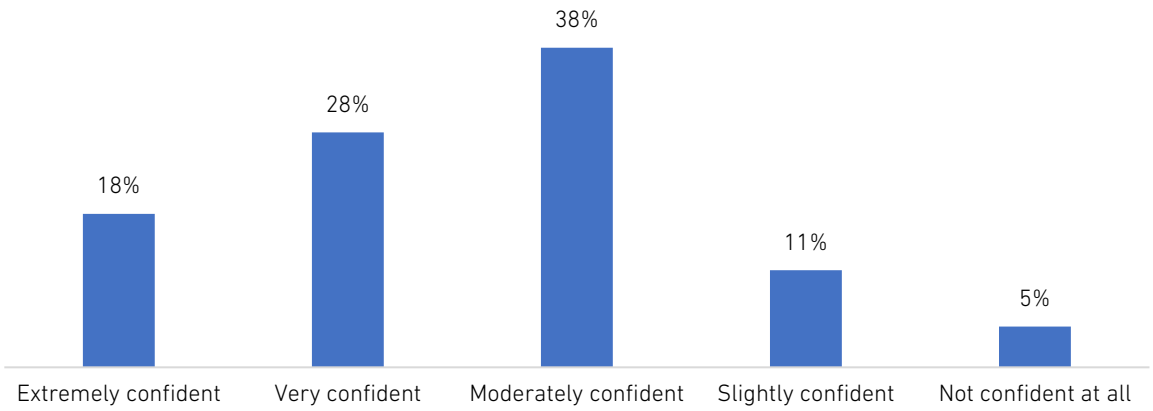



*Source*: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

Financial measures, including access to affordable loans and credit and tax relief or financial incentives, are also regarded as important, though responses are concentrated mainly in the moderate-to-high importance range rather than at the highest level. In contrast, insurance coverage, digitalisation support, and formal risk-management or preparedness training are generally perceived as lower priorities, with more varied responses and a larger share of firms assigning low or moderate importance. Overall, the findings suggest that MSMEs prioritise restoring and strengthening basic operating conditions over adopting longer-term or firm-level risk-mitigation tools, reflecting both immediate recovery needs and perceived feasibility constraints.

Despite the recent severe disruptions, MSMEs express moderate but cautious confidence in their ability to withstand future shocks (Figure 5.41). Confidence is concentrated at the middle range, with around 38% of enterprises reporting moderate confidence in their business survival if a similar disaster were to occur again. A further 28% report being very confident and 18% extremely confident, indicating that nearly half of enterprises perceive themselves as relatively resilient. At the same time, about 16% express low or no confidence, highlighting persistent vulnerability amongst a significant minority. Overall, the findings suggest that while confidence in future survival is present, it remains measured rather than assured, reflecting ongoing structural and financial constraints.

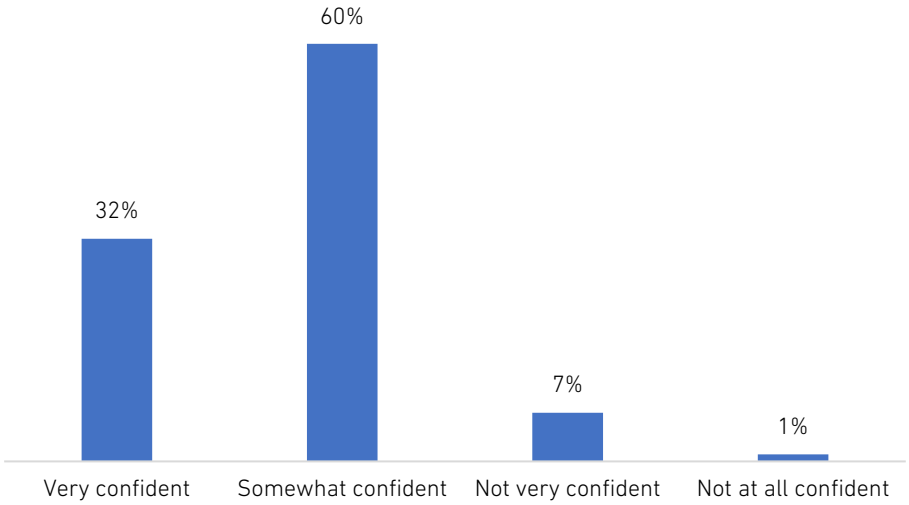
Figure 5.41. Confidence in Business Survival under Future Disasters




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

Expectations for business growth over the next 12 months are generally positive but restrained (Figure 5.42). A clear majority of MSMEs express confidence in future growth, with 60% reporting that they are somewhat confident and a further 32% indicating they are very confident, together accounting for over 90% of respondents. By contrast, only a small share reports low confidence (7% not very confident and 1% not confident at all). The concentration of responses in the moderate confidence category suggests cautious optimism rather than strong expansion expectations, reflecting ongoing uncertainty despite progress in recovery.

Figure 5.42. Confidence in Business Growth over the Next 12 Months

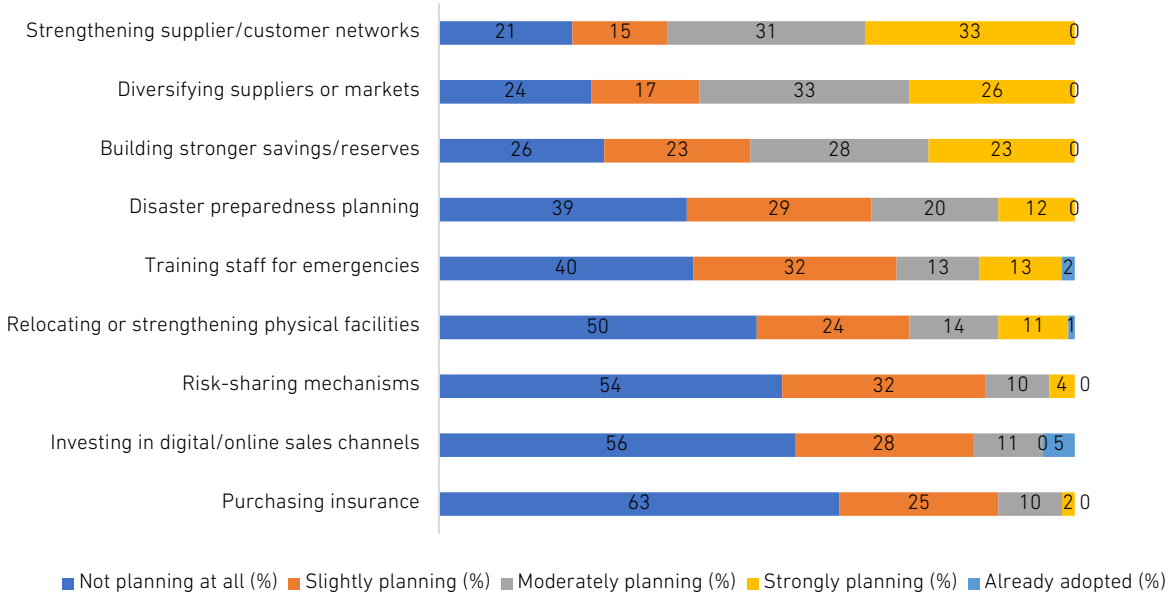



Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

Planned adaptive actions amongst MSMEs are largely incremental rather than transformative (Figure 5.43). The surveyed enterprises report relatively strong intentions

to strengthen supplier and customer networks, diversify suppliers or markets, build savings or reserves, and undertake basic disaster preparedness planning, reflecting strategies that can be implemented within existing financial and operational constraints.

Figure 5.43. Planned Measures to Strengthen Resilience to Future Risks




Source: ERIA Myanmar MSME Post-Disaster Recovery Survey Database (2026).

By contrast, more capital-intensive or structurally demanding measures, including purchasing insurance, adopting risk-sharing mechanisms, investing in digital or online sales channels, and relocating or strengthening physical facilities, are less frequently planned. Around half or more of enterprises report no planning or only limited intention to pursue these options, indicating constraints related to cost, complexity, and uncertainty about future operating conditions.

Training staff for emergencies occupies an intermediate position, with a mix of slight to moderate planning across firms. Overall, the pattern suggests that MSMEs' forward-looking resilience strategies emphasise gradual adjustment and internal capacity-building, rather than rapid transformation, consistent with ongoing financial limitations and cautious expectations despite improving confidence in survival and growth.

## Box 14. Raising MSME Confidence

This box summarises what drives firms' confidence to survive future disasters based on their experiences in coping with the Mandalay Earthquake. Many firms place themselves in the middle to upper part of the confidence scale.

Our analysis focuses on a compact, real-world set of conditions, place, the regulatory environment, everyday logistics, growth expectations, production capacity, co-operation with local authorities, supplier/customer networks, market access support, and firm size, to explain

how these shape confidence in surviving a future disaster.

## Key findings

*Place matters.*
Confidence differs by survey area, pointing to local factors, such as infrastructure, administrative processes, and market access, that shape how prepared firms feel.

*The regulatory environment is pivotal.*
Firms' reports of regulatory restrictions strongly track how they position themselves on the confidence scale, underscoring the role of clear, navigable rules.

*Forward-looking sentiment goes hand-in-hand with resilience.*
Firms that say they are confident their business will grow in the next 12 months also report higher confidence to withstand another disaster, suggesting that planning for growth and planning for shocks reinforce each other.

*Everyday logistics shape confidence.*
Where firms report ongoing logistics disruptions, such as constraints in transport, last-mile delivery, or warehousing, their confidence profiles shift in ways that signal heightened strain, underscoring the role of reliable logistics as a core pillar of business resilience.

*Operational headroom helps.*
Higher production capacity aligns with higher confidence, consistent with the idea that having a bit of slack in equipment, people, or processes makes firms feel readier to adapt.

*Working with local authorities lifts the floor.*
Where co-operation with local authorities to solve problems is weaker, more firms sit at the bottom of the confidence scale; clearer contact points and timely responses appear to bolster confidence, especially for those least confident.

*Networks and market access support help, though the effects are smaller.*
Diversifying suppliers or markets, strengthening supplier/customer networks, and market access support show supportive relationships with confidence and complement the core levers above.

## Policy recommendations

*Cut red tape where firms feel blocked*
Create one-stop windows, publish step-by-step checklists, and set service-level targets so routine compliance is predictable and quick. This is a visible lever that firms associate with confidence.

*Fix logistics where it bites the most*
Address last-mile congestion, loading and storage reliability, and route redundancy along priority corridors; logistics is not just an efficiency issue. It is core to disaster readiness.

*Back growth planning and small operational upgrades*
Offer light-touch growth planning and pair it with practical upgrades, maintenance, spares, and basic process improvements, so firms build production capacity and confidence together.

*Strengthen public–firm coordination*
Clarify who to call, publish turnaround times for common requests, and monitor responsiveness; better day-to-day co-operation with local authorities helps lift firms out of the lowest confidence tier.

*De-risk supply chains and expand market links*
Co-fund supplier diversification, support supplier/customer networking, and extend market access support so firms have more than one route to inputs and sales when systems are stressed.

*Tailor by location; do not gate by location*
Use area differences to target the mix of support (e.g. more logistics fixes here, more administrative streamlining there), while keeping eligibility open so firms in tougher places are not excluded.

Firms' confidence that they could survive another disaster rises when the regulatory path is clear, logistics work reliably, leaders are planning for growth, operations have some headroom, and local coordination functions smoothly. It improves further when firms can diversify suppliers and strengthen market links. These are practical levers that local agencies and programmes can move now, and they line up directly with what firms themselves report as shaping their confidence.

# Chapter 6

# Discussions, Implications, and Policy Recommendations

This chapter synthesises the findings of the post-earthquake MSME assessment to examine how pre-existing economic fragilities, disaster-related disruptions, and institutional response gaps shaped enterprise outcomes in Myanmar. It discusses the implications of these dynamics for short-term recovery and long-term resilience, highlighting how relief-dominant policies, liquidity constraints, supply-chain fragility, and limited institutional coordination prolonged a survival-oriented equilibrium across the MSME sector. The chapter concludes by outlining a comprehensive policy agenda aimed at transitioning from household-financed coping toward structured, shock-responsive, and productivity-enhancing support systems capable of restoring economic activity and strengthening future resilience.

## 1. Pre-Earthquake Economic Context and Business Environment

In the period leading up to the March 2025 Earthquake, Myanmar's business sector was operating under significant macroeconomic stress. The compounding effects of post-pandemic volatility, sharp exchange-rate depreciation, persistently high inflation, and increasingly restrictive foreign-exchange and trade controls created an environment in which firms, particularly MSMEs, were already facing acute operating pressures. Survey data indicate that MSMEs entered 2025 with narrow profit margins, limited liquidity, and strong dependence on retained earnings and informal borrowing, rather than access to formal financial institutions. While access to premises and water supply posed relatively minor constraints, firms consistently identified unreliable electricity, volatile fuel availability, and elevated logistics costs as chronic operational bottlenecks, especially within manufacturing subsectors.

Although 71% of MSMEs reported that business conditions before the earthquake were 'favourable,' this apparent optimism did not reflect genuine economic resilience. Rather, it stemmed from firms' adaptive behaviour in the face of long-term structural strain. MSMEs had adjusted to suppressed domestic demand, periodic shortages of imported inputs, rising operating costs, and persistent working-capital constraints. What appeared to be 'stability' was, in reality, a pattern of endurance under prolonged economic pressure, with little capacity to absorb even moderate disruptions. Consequently, the majority of small enterprises entered the disaster with weakened balance sheets and thin financial buffers, rendering them highly vulnerable when the earthquake struck.

Larger enterprises faced a different pre-shock landscape. While they were not immune to

cost escalation or market instability, their scale, fixed-asset base, and stronger integration into formal infrastructure systems provided some degree of operational continuity. However, these advantages did not extend to manufacturing MSMEs in Mandalay and Nay Pyi Taw, firms that operated with high levels of informality, limited collateral, and deep interdependence between household and business finances. The divergence underscores a clear size-based resilience gradient: large firms maintained partial shock-absorption capacity, while MSMEs were significantly more exposed due to structural liquidity constraints, fragile supply chains, and limited integration into formal financial and institutional systems.

Institutional preparedness before the earthquake was also weak across the MSME landscape. Most enterprises lacked even basic disaster-readiness mechanisms, no formal business-continuity plans, no insurance coverage, and limited safety or emergency protocols. This absence of structured risk-management practices extended beyond financial limitations to governance, operational decision-making, and internal organisation. As a result, when the earthquake occurred, firms faced not only physical damage but also uncertainty around safety conditions, compliance requirements, and coordination with public authorities. These institutional gaps exacerbated the economic impact by slowing reopening processes, prompting precautionary closures, and increasing the overall duration of business interruption.

Taken together, Myanmar's enterprise landscape before the earthquake was marked by financial precarity, operational fragility, and insufficient institutional preparedness. These underlying conditions significantly amplified the severity of the March 2025 Earthquake's economic consequences and shaped the trajectory of MSME recovery in the months that followed.

## 2. Immediate Impact of the Earthquake on MSMEs

The March 2025 Earthquake generated broad but highly uneven impacts across Myanmar's MSME sector, affecting physical assets, operational continuity, labour availability, and supply-chain functioning. Survey results show that losses were concentrated disproportionately at the household–enterprise interface, particularly amongst home-based and small manufacturing firms whose productive assets were embedded within residential structures. This physical configuration significantly heightened vulnerability: when dwellings were damaged, business premises, inventories, and household financial reserves were simultaneously compromised. Approximately one-third of manufacturing MSMEs reported damage to buildings, machinery, raw materials, or finished goods, with home-based enterprises exhibiting the highest rates of loss. The earthquake thus functioned as a dual shock, undermining both enterprise viability and household income security, accentuating the structural interdependence of micro-scale production and domestic assets.

Operational disruptions were widespread, yet largely short-duration, with most manufacturing MSMEs forced to close for periods ranging from several days to around 1 month. Importantly, these closures were driven not only by physical destruction but also by safety concerns, mandatory inspections, and uncertainties regarding reopening procedures. This reflects a form of governance-related disruption, in which unclear institutional guidance and inconsistent enforcement prolonged downtime, even amongst firms with limited physical damage. Upon reopening, many firms returned at reduced capacity, constrained by liquidity shortages, limited labour availability, and difficulties accessing raw materials or repairing machinery. Recovery speed, therefore, depended on both material conditions and the clarity, timeliness, and consistency of institutional processes that shaped operational decision-making in the immediate aftermath.

Labour shortages emerged as a significant constraint, intensifying a pre-existing structural challenge within labour-intensive subsectors such as garments, weaving, and small-scale manufacturing. Workers temporarily relocated due to safety concerns, damaged housing, or disruptions to transportation, while others shifted to short-term, higher-paid informal jobs. At the same time, supply-chain disruptions, including delays in raw-material deliveries, heightened transport costs, and difficulties importing spare parts and specialised equipment, further impeded the restoration of manufacturing capacity. These disruptions transformed what might have been a short-lived shock into a prolonged period of economic stress, weakening production networks, increasing transaction costs, and constraining firms' ability to normalise operations.

Together, these dynamics reveal that MSME recovery was shaped as much by systemic and institutional factors as by the severity of physical damage. Despite the fact that many enterprises had previously reported 'favourable' business conditions, this sentiment largely reflected adaptation to chronic constraints rather than underlying financial resilience. The earthquake intensified existing structural vulnerabilities, thin liquidity, unstable supply chains, and limited labour reserves, leading to sharp short-term declines in production, sales, and service delivery.

Despite these challenges, approximately 80% of affected MSMEs eventually reopened after undertaking repairs. However, around one-fifth remained closed, primarily due to binding financial constraints and a lack of external support mechanisms. Amongst those that did reopen, many did so only partially, operating through temporary repairs, improvised production arrangements, or scaled-down output levels rather than full restoration of capital assets. Reopening, therefore, signified a coping response rather than a recovery of pre-disaster productive capacity.

The financial burden of recovery fell overwhelmingly on household resources. MSMEs relied heavily on personal savings and informal borrowing, deepening household indebtedness and reinforcing the dependence of business continuity on private coping mechanisms rather than institutional support. Employment adjustments also reflected

household-driven coping behaviour: firms reduced working hours, relied more heavily on family labour, and avoided formal layoffs where possible, yet persistent labour shortages continued to slow production normalisation.

Overall, post-earthquake performance trajectories illustrate a shift from fragile stability toward survival-oriented functioning. MSMEs resumed activity when able, but recovery was driven largely by households' absorptive capacity rather than by structural economic resilience or coordinated institutional support. These patterns underscore how pre-existing financial precarity, informality, and institutional fragility critically shaped the depth, duration, and unevenness of MSME disruption following the earthquake.

## 3. Access to Support and Effectiveness of Post-Earthquake Assistance

Post-earthquake assistance in Myanmar focused primarily on humanitarian relief and public-infrastructure restoration, with limited attention to the specific needs of enterprises. Survey evidence and key informant interviews indicate that most MSMEs received no direct financial, technical, or in-kind support aimed at restoring business operations. Government assistance largely targeted households through food distribution, temporary shelter, and housing reconstruction, benefiting only a subset of home-based enterprises where residential and productive spaces overlapped. This pattern reflects a broader conceptual gap: enterprise recovery was not treated as an explicit pillar of the national disaster-response strategy, but instead assumed to follow indirectly from social protection interventions.

The institutional framework for business support was characterised by fragmented mandates, weak coordination, and unclear targeting mechanisms. Multiple actors, including economic ministries, local authorities, financial institutions, and business associations, held partial responsibilities, yet no integrated framework existed to guide enterprise-specific recovery. As a result, MSMEs faced administrative and informational barriers, including uncertainty regarding eligibility, inconsistent communication, and a lack of clarity over institutional roles in damage verification, application processing, and support delivery. These shortcomings compounded firms' financial and operational vulnerabilities at a moment when timely and predictable guidance was most critical.

Although the government introduced low-interest recovery loan schemes, access remained limited in practice. Implementation was slow, application requirements were onerous, and eligibility criteria were poorly aligned with the realities of firms grappling with income volatility, partial asset losses, and informal operating arrangements. Private banks administering much of the lending applied stringent collateral requirements, short repayment periods, and documentation standards ill-suited to post-disaster conditions. Consequently, limited uptake reflected not a lack of demand, but institutional channels' inability to deliver finance in a timely, flexible, and context-appropriate manner.

Donor- and association-led support reached only a narrow segment of enterprises and, while valuable, was insufficient in scale given widespread liquidity shortages. Most interventions were localised, one-off, and modest in scope. Critically, no mechanism existed to link emergency relief with enterprise continuity, leaving a structural gap in early-recovery finance during the weeks immediately following the earthquake. Firms unable to mobilise private savings or informal loans were therefore exposed to heightened risks of prolonged disruption or permanent exit.

Access to support and recovery outcomes also varied systematically by location, sector, and institutional embeddedness. Enterprises located outside industrial zones, operating in disruption-prone sectors such as textiles or raw-material processing, or lacking formal registration or association membership experienced longer and more severe interruptions. These firms faced slower infrastructure restoration, weaker information flows, and greater difficulty accessing recovery finance, reflecting their peripheral position within formal support systems. In contrast, MSMEs embedded in industrial zones or institutional networks benefited indirectly from faster utility restoration, clearer communication channels, and greater visibility to support providers.

Taken together, delayed financing, limited coverage, and fragmented institutional arrangements significantly weakened the effectiveness of post-earthquake assistance. Support did not adequately address MSMEs' urgent liquidity needs or the structural constraints, high informality, low collateralisation, and thin financial buffers, that shape enterprise survival in disaster contexts. Recovery trajectories were therefore driven less by the availability of assistance on paper than by institutions' capacity to deliver timely, accessible, and appropriately designed support. The experience highlights a systemic policy gap: without a coherent framework that places MSME recovery at the core of disaster-response and reconstruction planning, future shocks are likely to reproduce similar patterns of fragmentation, delayed stabilisation, and reliance on household-level coping mechanisms.

## 4. Post-Earthquake Recovery Dynamics of MSMEs

The post-earthquake recovery of MSMEs in Myanmar has unfolded as gradual, uneven, and largely incomplete, with firms regaining only partial functional capacity rather than returning to pre-earthquake performance levels. While most MSMEs eventually reopened, the dominant pattern was one of survival-oriented recovery, in which enterprises prioritised minimal operational continuity over productivity restoration or growth. This pattern reflects both the magnitude of the shock and the depth of pre-existing vulnerabilities that shaped recovery trajectories.

A defining feature of the recovery phase was the overwhelming reliance on household-based financing. MSMEs funded repairs and operational continuity through

personal savings, family loans, informal lending arrangements, and short-term borrowing. Despite the establishment of government-backed concessional loan schemes, formal financial support remained largely inaccessible, constrained by collateral requirements, slow implementation, and restrictive eligibility criteria. The dependence on household resources, therefore, does not reflect an inherent preference for informality, but rather a systemic failure in the design and delivery of recovery-oriented financial instruments. For many enterprises, access to liquidity depended on the absorptive capacity of the household itself, reinforcing the interdependence between domestic welfare and enterprise continuity.

Asset recovery was especially slow and incomplete. Damage to buildings, machinery, and production equipment imposed repair costs that far exceeded the financial capacity of most MSMEs. Many firms undertook partial, temporary, or makeshift repairs, enabling them to reopen but locking them into low-productivity production modes. The situation was particularly acute amongst manufacturing MSMEs, whose higher capital intensity and reliance on imported machinery, spare parts, and intermediate inputs created persistent bottlenecks. These firms faced long delays in repairing or replacing equipment, further tightening operational constraints. In addition, ongoing shortages of skilled labour, input delivery delays, and subdued consumer demand prevented enterprises from scaling operations back to pre-earthquake levels. Under these conditions, reopening functioned primarily as a short-term coping strategy rather than a substantive step toward economic normalisation or growth.

Recovery dynamics were further shaped by Myanmar's broader conflict-affected operating environment, which continued to disrupt logistics networks, limit worker mobility, elevate transportation and security-related costs, and weaken overall market confidence. As a result, MSMEs were forced to navigate a recovery process marked not by post-disaster stabilisation, but by overlapping pressures from both disaster impacts and ongoing conflict dynamics. These compounded stressors significantly slowed the pace of recovery and undermined efforts to rebuild productive capacity.

Taken together, the post-earthquake trajectory of MSMEs reflects a shift from fragile pre-disaster stability to prolonged survival-mode functioning. Enterprises reopened where possible, but most did so without adequate capital, reliable labour, or stable supply chains. Recovery has therefore been driven not by structural economic resilience or coordinated institutional support, but by households' limited financial and social coping mechanisms. This pattern underscores the central policy challenge: without accessible recovery finance, targeted technical support, and institutional coordination, MSMEs remain trapped in low-productivity, high-vulnerability operating conditions, limiting both their ability to recover and their resilience to future shocks.

## 5. MSME Resilience and Recovery

The earthquake exposed deep-seated structural vulnerabilities within Myanmar's MSME sector, revealing limitations in financial resilience, physical safeguards, and dependence on inherently fragile infrastructure and supply networks. High concentrations of home-based enterprises, substandard construction quality in mixed-use residential–commercial buildings, chronic electricity instability, and extensive reliance on imported inputs significantly amplified the scale of enterprise-level losses. These weaknesses did not emerge as a result of the earthquake; rather, the disaster acted as a stress test that illuminated longstanding systemic deficiencies, underscoring the mismatch between Myanmar's MSME operating realities and the risk environment in which firms operate.

Across firm sizes and subsectors, disaster preparedness proved minimal. Few enterprises had business-continuity plans, almost none held insurance coverage, and documentation of assets and losses was limited or non-existent. These gaps reflect not only financial constraints but also broader institutional shortcomings, including the absence of standardised risk-management systems, limited access to preparedness training, and weak integration of MSMEs into local disaster-management structures. Without such frameworks, recovery processes unfolded in reactive and fragmented ways, slowing restoration of productive capacity and increasing the duration of business interruption.

Structural features of the MSME landscape further magnified vulnerability. The dominance of family-owned and micro-scale enterprises, where business and household assets are deeply intertwined, meant that enterprise damage immediately translated into household financial distress. With virtually no access to formal risk-transfer mechanisms or targeted recovery finance, the burden of rebuilding fell overwhelmingly on households. This interdependence transformed MSME recovery into a livelihood-stabilisation challenge, creating a reinforcing cycle in which household precarity constrains enterprise recovery, and slow enterprise recovery deepens household vulnerability.

Weaknesses in formal support mechanisms compounded these structural fragilities. Post-disaster assistance, fragmented, reactive, and poorly tailored to enterprise needs, did not provide effective financial stabilisation. Loan schemes introduced by public authorities and administered through private banks were hindered by collateral requirements, administrative burdens, and repayment terms ill-suited to firms experiencing reduced cash flow and partial asset loss. As a result, many MSMEs could not secure liquidity to restore operations, leaving local employment, supply networks, and regional economic activity at risk. These challenges demonstrate that recovery constraints extended far beyond individual firm-level difficulties; they represented systemic risks with implications for the broader economic ecosystem.

These dynamics highlight the urgent need for a comprehensive MSME resilience and recovery framework that goes beyond ad hoc, household-financed coping strategies. Such a framework should include:

- Rapid-disbursement liquidity facilities that can stabilise firms during the critical early period after a shock;
- Shock-responsive financing instruments, including flexible collateral arrangements and repayment structures aligned with post-disaster cash-flow patterns;
- Standardised and scalable loss-assessment mechanisms to ensure transparent targeting and timely delivery of support;
- Infrastructure stabilisation measures, including improved construction standards, electricity reliability, and safer industrial environments;
- Coordinated institutional arrangements that integrate MSME recovery into national and subnational disaster-management planning.

Nine months after the earthquake (as of December 2025), Myanmar's broader economic recovery remains fragile and uneven. Economic activity continues to be constrained by earthquake-related damages, high reconstruction costs, weak domestic demand, persistent conflict, labour shortages, and chronic electricity instability. Survey findings indicate that around one-third of firms (approximately 34%) have yet to return to pre-earthquake activity levels, based on self-reported assessments of operational status. Despite these persistent challenges, only about 8% of enterprises have been able to secure additional resources, whether through capital injections, informal loans, or external assistance, pointing to limited financial buffers and constrained access to support mechanisms. Yet the recovery trajectory remains uneven and incomplete, shaped by structural vulnerabilities and compounded by the ongoing conflict environment.

Taken together, these patterns underscore a central conclusion: MSME resilience in Myanmar cannot be understood solely through the lens of post-disaster recovery. It is fundamentally tied to long-standing economic, institutional, and infrastructural weaknesses. Without structural reforms and a coordinated resilience strategy, future shocks are likely to reproduce the same patterns of widespread enterprise disruption, slow recovery, and heavy reliance on household-level coping mechanisms.

# 6. Implications

Evidence from the post-earthquake assessment indicates that MSME recovery in Myanmar has unfolded within a system dominated by relief-focused interventions, persistent financial frictions, entrenched productivity constraints, and weak institutional coordination. Rather than enabling a timely transition from emergency response to enterprise stabilisation and growth, existing arrangements have sustained a survival-oriented equilibrium in which firms reopen at partial capacity, rely heavily on household resources, and continue to operate under uncertainty. The implications below synthesise these dynamics and highlight the structural reforms required to move MSMEs from short-term coping toward durable, shock-responsive recovery.

*From Relief to Enterprise Recovery*

The earthquake response prioritised humanitarian relief and basic infrastructure restoration, yielding only indirect and uneven benefits for MSMEs. While these interventions were essential to address immediate human needs, they did not tackle the structural barriers preventing firms from restoring productive capacity. Most MSMEs received no direct support to repair damaged assets, rebuild inventories, or replenish working capital, leaving them dependent on personal savings, household borrowing, or informal finance.

This outcome reflects a relief-oriented response model in which MSME rehabilitation is treated as an incidental by-product of household assistance rather than a strategic component of disaster recovery. In the absence of a structured transition from emergency relief to enterprise-level support, firms reopened only partially and continued to face binding constraints in liquidity, labour availability, and access to inputs. These patterns point to systemic policy design gaps rather than firm-level shortcomings. If unaddressed, such gaps risk converting short-term shocks into longer-term development setbacks by trapping MSMEs in low-productivity, high-vulnerability operating modes. The implication is clear: disaster response frameworks must explicitly integrate enterprise recovery alongside social protection and reconstruction efforts.

*Access to Finance as a Binding Constraint*

Access to finance emerged as the single most decisive factor shaping MSME recovery trajectories. Liquidity shortages limited firms' ability to repair assets, replace inputs, retain workers, and scale operations after reopening. Although concessional recovery loan schemes were announced, formal financing channels remained largely inaccessible due to stringent collateral requirements, procedural complexity, delayed rollout, and loan terms misaligned with disrupted cash flows and partial asset losses.

As a result, most MSMEs relied on informal borrowing or household savings, increasing indebtedness and eroding already thin financial buffers. In practice, financial access determined whether enterprises remained confined to survival mode or progressed toward genuine stabilisation. The implication is that Myanmar requires shock-responsive financial instruments, rapid-disbursement liquidity facilities, flexible collateral frameworks, and post-disaster loan products designed around altered cash-flow conditions, to support enterprise recovery effectively.

*Location, Sector, and Institutional Embeddedness*

Recovery outcomes varied systematically by business location, sectoral characteristics, and institutional embeddedness. Enterprises located outside industrial zones experienced longer disruptions due to slower infrastructure restoration, weaker logistics connectivity, and limited access to coordinated support. Firms operating in disruption-prone sectors, such as textiles and raw-material processing, faced compounded vulnerabilities stemming from energy dependence, machinery-intensive production, and extended supply chains.

Institutional engagement further mediated recovery. Formally registered enterprises and those affiliated with business or industry associations benefited from better information flows, clearer communication with authorities, and greater visibility to support providers. Conversely, informal and weakly embedded MSMEs encountered higher administrative barriers and prolonged uncertainty. These patterns imply that disaster impacts are not neutral across firms; existing spatial, sectoral, and institutional inequalities strongly shape access to support and recovery speed. Without corrective policies, uneven recovery risks reinforcing structural dualism within the MSME sector.

*Skills, Technology, and Productivity Constraints*

The disaster amplified pre-existing constraints related to skills shortages, outdated technology, and low productivity, particularly in light manufacturing and garment subsectors. Labour displacement, outward migration, and limited training opportunities Evidence from the post-earthquake assessment indicates that MSME recovery in Myanmar has unfolded within a system dominated by relief-focused interventions, persistent financial frictions, entrenched productivity constraints, and weak institutional coordination. Rather than enabling a timely transition from emergency response to enterprise stabilisation and growth, existing arrangements have sustained a survival-oriented equilibrium in which firms reopen at partial capacity, rely heavily on household resources, and continue to operate under uncertainty. The implications below synthesise these dynamics and highlight the structural reforms required to move MSMEs from short-term coping toward durable, shock-responsive recovery.

*Institutional Coordination Gaps*

Finally, the post-earthquake response exposed significant coordination failures amongst disaster-management bodies, economic ministries, financial institutions, and business associations. Fragmented mandates, unclear roles, and weak communication delayed assistance, reduced uptake, and undermined enterprise confidence in public support systems. Even well-intentioned programmes failed to deliver meaningful impact due to diffuse implementation responsibility and limited operational capacity.

The broader implication is that Myanmar's institutional architecture is not equipped to deliver timely, coordinated MSME-focused recovery support following large-scale shocks. Without a unified mechanism, such as a national MSME recovery framework or dedicated enterprise-recovery window, future disasters are likely to reproduce patterns of fragmented intervention, delayed financial stabilisation, and reliance on household-level coping.

*Cross-Cutting Implication*

Overall, the evidence demonstrates that MSME recovery cannot rely on firm-level coping strategies alone. Durable recovery requires systemic reform that integrates enterprise-targeted recovery into disaster-response planning, expands access to shock-responsive finance, upgrades skills and productivity, improves infrastructure reliability, and strengthens institutional coordination. Without such reforms, MSMEs, central to employment and local economic activity, will remain vulnerable to recurring shocks, perpetuating cycles of fragile recovery and economic instability.

## 7. Policy Recommendations: A Three-Pillar Action Plan for Shifting from Survival to Durable MSME Recovery

MSME recovery following the earthquake has been shaped by pre-existing resilience gaps, institutional uncertainty, stabilisation-oriented reopening patterns, and persistent constraints in finance, labour, supply chains, infrastructure, and governance. These dynamics reveal the limits of relief-dominant responses and underscore the need to (i) strengthen linkages between humanitarian response and enterprise recovery, (ii) align financial instruments with MSME operating realities, and (iii) reinforce productivity and resilience through coordinated, system-level reforms. The policy agenda should therefore build on ongoing relief efforts while progressively shifting from short-term stabilisation toward a holistic recovery and resilience framework, one that recognises MSMEs as central to economic revitalisation, employment protection, supply-chain continuity, and long-term development stability.

To enhance strategic coherence, the recommendations are organised under three mutually reinforcing pillars: (1) Early Enterprise Stabilisation, (2) Institutional and Financial System Strengthening, and (3) Productivity and Structural Resilience. Together, these pillars reflect a sequenced progression from immediate recovery support to institutional consolidation and longer-term structural transformation.

### Pillar 1: Early Enterprise Stabilisation

This pillar prioritises the rapid integration of enterprise recovery into early-recovery frameworks, the provision of shock-responsive finance, and the establishment of standardised mechanisms for assessing enterprise damage and losses.

*Integrating Enterprise Recovery into Early-Recovery Frameworks*

Enterprise recovery should be treated as an explicit component of early-recovery planning under the existing disaster-management architecture, rather than as an indirect outcome of household assistance. Survey evidence demonstrates that reopening does not equate to recovery: MSMEs often continue to face liquidity shortages, incomplete asset repair, labour instability, and supply-chain disruption well beyond the initial shock.

Recommended actions:

- Establish Enterprise Early Recovery Windows (EERWs) within existing disaster-response financing mechanisms to fund immediate working capital needs and critical repairs within 30–60 days after a disaster.
- Integrate MSME stabilisation measures into township-level emergency operations through designated MSME focal points within existing administrative structures, supported by Ward/Village Tract and Township Administrators for enterprise identification, outreach, and data validation.
- Deploy rapid diagnostics of productive assets, utility access, and supply-chain connectivity to support timely restoration of economic activity.

This approach positions enterprise stabilisation as a core element of community recovery and economic normalisation, complementing humanitarian and infrastructure rehabilitation.

*Designing Shock-Responsive MSME Recovery Finance*

Access to finance remains a decisive constraint on MSME recovery. Liquidity shortages have limited firms' ability to repair assets, retain workers, procure inputs, and scale up production, while existing loan products have often been poorly aligned with disrupted cash flows and partial asset losses.

Recommended actions:

- Develop shock-responsive MSME recovery loans with flexible collateral requirements, extended grace periods, phased disbursement linked to repair milestones, and simplified documentation.
- Channel financing through diversified delivery mechanisms, including MFIs, co-operatives, community-based credit groups, and association-certified borrowers.
- Pilot a Recovery Credit Guarantee Facility to reduce lender risk and expand access for micro and informal enterprises.
- Pair concessional loans with targeted grants for micro and home-based enterprises with limited borrowing capacity.

*Standardising Enterprise Damage and Loss Assessment*

The absence of standardised loss documentation limited targeting accuracy and delayed support delivery.

Recommended actions:

- Introduce a standardised MSME damage-and-loss assessment form at township level, covering buildings, equipment, inventories, and income losses.
- Engage ward/village tract and township administrations to ensure coverage of unregistered and informal enterprises.
- Consolidate information in a digital registry to support real-time monitoring, coordination, and disaster-risk planning.

*Protecting Micro and Home-Based Enterprises as Livelihood Anchors*

Micro and home-based enterprises form a critical livelihood buffer at the household–enterprise interface and are disproportionately exposed to shocks.

Recommended actions:

- Establish micro-enterprise relief windows within MSME and social-protection programmes to provide grants or vouchers for essential repairs and inputs.
- Use business associations, community organisations, and women's networks for outreach, verification, grievance handling, and feedback.
- Strengthen linkages between social protection instruments (cash transfers, utility subsidies) and micro-enterprise recovery.

### Pillar 2: Institutional and Financial System Strengthening

This pillar focuses on improving coordination, clarifying institutional roles, and strengthening risk-financing mechanisms to enhance delivery effectiveness.

*Strengthening Institutional Coordination for MSME Recovery*

Post-earthquake recovery was hindered by fragmented mandates, weak information flows, and unclear sequencing across institutions.

Recommended actions:

- Designate MSME recovery focal units within existing disaster-recovery and economic coordination committees.
- Formally involve chambers of commerce, industry associations, and NGOs in enterprise listing, damage verification, and feedback loops.
- Issue a consolidated MSME Recovery Protocol clarifying procedures for damage reporting, safety inspections, eligibility, and benefit delivery.

*Building Risk Financing and Insurance for MSME Resilience*

Low insurance penetration reflects affordability constraints, limited awareness, and distrust of formal systems.

Recommended actions:

Pilot micro-insurance and parametric insurance products tailored to micro and small enterprises.

*Bundle insurance coverage with recovery loans and grants.*

Use business associations and township authorities to disseminate information, build trust, and support enrolment.

- Promote risk-education initiatives emphasising protection of household-enterprise assets.

### Pillar 3: Productivity and Structural Resilience

This pillar addresses medium- to long-term constraints by linking recovery to productivity upgrading, supply-chain rebuilding, and resilience-oriented reforms.

*Restoring Skills, Repair Systems, and Productivity Capacity*

Recovery has been constrained by skill shortages, damaged machinery, and reliance on outdated technologies, particularly in textiles, garments, and food processing.

Recommended actions:

- Deploy Rapid Technical Assistance Teams through partnerships with technical institutes and industrial associations to provide on-site diagnostics, repair support, and operational guidance.
- Launch short-cycle training linked to immediate production needs, including machine operation, maintenance, and safety.
- Explore phased development of regional machinery repair and spare-parts facilities in key industrial areas.
- Provide matching grants for productivity upgrading, prioritising heavily affected subsectors.

*Linking Recovery to Longer-Term Resilience Reforms*

Disaster impacts exposed underlying structural weaknesses that require longer-term reform.

Recommended actions

- Reform inspection and administrative procedures to ensure predictability and transparency during crises.

- Integrate resilience criteria, business continuity planning, risk financing, energy reliability, into enterprise development policies.
- Expand investment in economic infrastructure, particularly power reliability, transport, and industrial zones.
- Strengthen MSME support institutions with mandates covering advisory services, market access, and resilience upgrading.

*Digitalisation for Recovery and Resilience*

Digital tools remain underutilised, constraining market access, finance, and information flows.

Recommended actions:

- Promote digital payments, online sales channels, and mobile-based accounting and inventory tools.
- Provide subsidised digital toolkits for micro and small enterprises, prioritising registered firms.
- Develop digital platforms linking market information, suppliers, and recovery support where feasible within existing national initiatives.

*Local Supply-Chain Rebuilding and Cluster-Based Recovery*

Supply-chain and logistics disruptions significantly slowed recovery.

Recommended actions:

- Support cluster-based recovery programmes in textiles, food processing, and machinery.
- Facilitate collective procurement, shared warehousing, and transport pooling with support from regional and township administrations.
- Incentivise local production of critical inputs in alignment with national industrial strategies.

*Conflict-Sensitive MSME Recovery Planning*

Given Myanmar's conflict-affected context, recovery measures must be conflict-sensitive.

Recommended actions:

- Ensure accessibility of recovery programmes in hard-to-reach areas through coordination with local administrative and community mechanisms.
- Provide mobility and logistics support in areas facing movement constraints.
- Integrate safety planning and crisis-adaptive business strategies into MSME training.

Taken together, this three-pillar action plan calls for a shift from fragmented, relief-oriented interventions toward an integrated, enterprise-centred recovery architecture. Such an approach positions MSMEs not as passive beneficiaries, but as central actors in national recovery, employment protection, and long-term economic resilience. Annex 8 provides a consolidated set of the above issue-based policy recommendations for MSME recovery and resilience and is intended to complement and operationalise the time-bound action plan outlined earlier.

# Chapter 7
# Conclusions

The 2025 Mandalay earthquake represents a defining stress test for Myanmar's MSME sector, one that revealed not only the magnitude of the immediate shock but also the extent to which enterprises were already operating within an environment of chronic macroeconomic and institutional fragility. Even before the disaster, MSMEs faced sustained inflationary pressure, exchange-rate volatility, limited access to affordable finance, unreliable electricity, and elevated logistics costs, all of which constrained liquidity and eroded resilience. These underlying vulnerabilities help explain why many firms described the pre-earthquake environment as 'favourable' not because conditions were strong, but because enterprises had adapted to functioning under prolonged structural strain rather than achieving true economic stability.

The earthquake intensified these existing pressures, producing multi-dimensional disruptions across Mandalay and Nay Pyi Taw. Damage to buildings, machinery, raw materials, and finished goods was particularly acute amongst home-based and small manufacturing firms whose productive assets were physically embedded within household structures. Supply-chain interruptions, electricity instability, liquidity shortages, and sharp declines in consumer demand further slowed the recovery of affected enterprises. Although most firms reopened within 1 month, reopening rarely signified full functional recovery. Instead, enterprises restored operations through temporary repairs, scaled-down production, and reliance on household savings or informal borrowing, with fewer than 5% accessing formal financial support.

## Key Findings and Policy Messages

The persistence of these constraints underscores a central finding: MSME recovery has been survival-oriented rather than restorative. Coping strategies, such as phased repairs, reduced working hours, reliance on family labour, deferred investments, and minimal production, enabled enterprises to reopen but not to return to pre-shock productivity. Larger firms, while better capitalised, faced their own bottlenecks, including costly equipment repairs, delays in importing spare parts, and prolonged safety inspections. Business associations and key informants repeatedly emphasised that fragmented coordination, unclear reopening procedures, and the absence of enterprise-focused support mechanisms significantly constrained recovery. These institutional shortcomings were reflected in the slow and uneven rebound across sectors: 9 months after the earthquake, only about 45% of MSMEs had returned to previous activity levels.

Public policy during this period remained dominated by humanitarian relief and household-level assistance. While such interventions were indispensable for immediate

welfare stabilisation, they did not sufficiently address the financial, infrastructural, and operational constraints that determine enterprise continuity. Recovery programmes existed on paper but were hindered by collateral requirements, procedural complexity, fragmented communication, and delays in disbursement, leaving most MSMEs unable to access the support they needed. The evidence demonstrates that the absence of an integrated enterprise-oriented early-recovery framework resulted in a fragmented recovery landscape where firms depended overwhelmingly on household resources rather than institutional mechanisms. This mismatch between policy design and implementation prolonged economic disruption and heightened the risk that the earthquake would produce long-term developmental setbacks rather than a temporary shock.

## Toward an Integrated MSME Recovery and Resilience Framework

Looking forward, these findings point to a clear need for a strategic policy shift toward an enterprise-centred recovery architecture. MSMEs require financial instruments calibrated to post-disaster realities, such as rapid-disbursement working-capital windows, shock-responsive loan products with flexible collateral and repayment terms, and targeted recovery grants for micro and home-based firms. Improved coordination across disaster-management agencies, economic ministries, and financial institutions, as well as standardised and transparent damage-and-loss assessment mechanisms, will be essential for accelerating future recovery. Similarly, investments in resilient infrastructure, including reliable electricity, transport corridors, and functional industrial-zone utilities, are critical to reducing vulnerability to future shocks and enhancing the long-term competitiveness of the MSME sector.

Equally important is the integration of MSMEs into the broader disaster-risk-management system. Business continuity planning, risk-transfer mechanisms such as micro-insurance, digital adoption to diversify markets and improve record-keeping, and supply-chain diversification represent core components of long-term resilience. These measures must be supported by targeted capability-building initiatives and coordinated institution-level reforms that shift disaster response from reactive relief toward proactive, evidence-based enterprise recovery.

In this context, the Three-Pillar Policy Action Plan presented in this report offers a practical, sequenced pathway for addressing the systemic constraints revealed by the earthquake. By combining rapid liquidity stabilisation, asset rehabilitation, supply-chain reconnection, power-reliability solutions, and longer-term productivity and resilience upgrading, the plan provides an actionable framework for preventing future shocks from producing similarly prolonged and uneven recovery trajectories.

Ultimately, the Mandalay Earthquake demonstrates that MSME resilience in Myanmar is inseparable from the broader financial, infrastructural, and institutional systems within which enterprises operate. Without substantive reforms in these systems, future shocks will continue to impose disproportionate economic costs on MSMEs and the communities that depend on them. Conversely, a coordinated, MSME-focused recovery strategy, grounded in the evidence presented throughout this study, can accelerate the restoration of livelihoods, strengthen local economies, and lay the foundations for inclusive, shock-responsive, and sustainable growth.

# References


Abe, M. and M.K. Dutta (2014), 'A New Policy Framework for Myanmar's SME Development', *ARTNeT Working Paper Series*, No. 142. Bangkok: ESCAP.

Aksoy, C.G., M. Chupilkin, Z. Koczan, and A. Plekhanov, A. (2024), 'Unearthing the Economic and Social Consequences of Earthquakes', *EBRD Working Paper No. 293*. London: European Bank for Reconstruction and Development.

American Chamber of Commerce in Myanmar (AMCHAM Myanmar) (2026) *AMCHAM Myanmar Annual Policy Report 2026*. Yangon: AMCHAM Myanmar.

ASEAN (2026), *Policy Incentives Granted to Local SMEs in Myanmar*. Jakarta: ASEAN. https://asean.org/wp-content/uploads/images/archive/pdf/sme_6.pdf

ASEAN Socio-Cultural Community (ASCC) (2025), 'Disaster Risk Financing and Insurance in Southeast Asia: Trends, Challenges, and Strategic Approaches', *Trend Report*, No. 12. Jakarta: ASEAN Secretariat.

Asia Pacific Economic Cooperation (APEC) (2025), *Digital Transformation to Generate New Business Opportunities, Opening to New Markets in the MSMEs and Gender-Focused Cooperatives, in Response to the Economic Crisis Caused by COVID-19*. Singapore: APEC Secretariat.

Creswell, J.W. and V.L.P. Clark (2017), *Designing and Conducting Mixed Methods Research*. 3rd Edition. Thousand Oaks: SAGE Publications.

Datta, S. and C. Mahjabeen (2016), *Resilience Strategy Framework and Theory of Change for NARRI Consortium 2015–2020*. Dhaka: NARRI Consortium. https://www.preventionweb.net/publication/resilience-strategy-framework-and-theory-change-narri-consortium-2015-2020

Economist Intelligence Unit (EIU) (2024/2025), *Myanmar: Economy, Politics and Growth Outlook.* London: EIU.

ESCAP (2012), *Policy Guidebook for SME Development in Asia and the Pacific*. Bangkok: ESCAP.

ESCAP (2023a), *Asia-Pacific Disaster Report 2023: Seizing the Moment, Targeting Transformative Disaster Risk Resilience*. Bangkok: ESCAP.

ESCAP (2023b), *Annual Report (79th Session).* Bangkok/New York: United Nations; ESCAP (2024), *Annual Report of the Economic and Social Commission for Asia and the Pacific*, 20 May 2023–26 April 2024 (E/2024/39- ESCAP/80/27). Bangkok/New York: United Nations.

ESCAP and Mekong Institute (2015), *Myanmar Business Survey: Data Analysis and Policy Implications*. Bangkok: ESCAP. https://hdl.handle.net/20.500.12870/1062.

Findlay, R., C.-Y. Park, and J.-P. Verbiest (2015), *Myanmar: Unlocking the Potential. A Strategy for High, Sustained, and Inclusive Growth*. Manila: Asian Development Bank.

Frankenberger, T., R. Choularton, J. Kurtz, and S. Nelson (2015), 'Measuring Shocks and Stressors as Part of Resilience Measurement', *Technical Series*, No. 5. Rome: Food Security Information Network.

Government of Nepal – National Reconstruction Authority (2021), *Evaluation of Socio-economic Impacts of Reconstruction in Nepal*. Kathmandu: National Reconstruction Authority. https://recovery.preventionweb.net/media/97050/download?startDownload=20260417

Guthery, D. and B.A. Lowe (1992), 'Translation Problems in International Marketing Research,' *Journal of Language for International Business*, 4, 1–14.

Hair, J.F., W.C. Black, B.J. Babin, and R.E. Anderson (2010), *Multivariate Data Analysis*. London: Pearson; Tabachnick, B.G. and L.S. Fidell (1989), *Using Multivariate Statistics*. 2nd Edition. New York: Harper & Row.

Lim, H. and Y. Yamada (2012), 'Economic Reforms in Myanmar: Pathways and Prospects', *BRC Research Report*, No. 10. Bangkok: IDE-JETRO

Mavroulis, S., M. Mavrouli, E. Vassilakis, I. Agryropoulos, P. Carydis, E. Lekkas (2023), 'Debris Management in Turkey Provinces Affected by the 6 February 2023 Earthquakes: Challenges during Recovery and Potential Health and Environmental Risks', *Applied Science*, 13(15), p.8823. https://doi.org/10.3390/app13158823

Ministry of Information (MOI) (2025), *MSME Development and Private Sector Overview*.

Ministry of Industry (MOI) (2025), *Registered Private Industrial Enterprises by State and Region*. November 2025.

Mishra, V. (2025), 'Four Years after the Coup, Myanmar Remains on the Brink', *UN News*, 29 January. https://news.un.org/en/story/2025/01/1159561

National Disaster Management Committee (2025), *Post-Earthquake Private Sector Damage Assessment: Field Survey Results for Mandalay, Nay Pyi Taw, and Sagaing Regions*. Government of Myanmar.

OECD (2013), 'Multi-dimensional Review of Myanmar: Volume 1. Initial Assessment', *OECD Development Pathways*. Paris: OECD Publishing. https://doi.org/10.1787/9789264202085-en

Pompa, C. and J. Bissinger (2014), 'Mandalay Region Chamber of Commerce & Industry', in *The Mandalay Region Chamber of Commerce and Industry: CASE STUDY*. ODI, pp. 2–6. https://www.jstor.org/stable/resrep50055.6

Prado Rivera, F. and J. Ubels (2022), *Resilience: A Conceptual Framework – Creating a*

*Shared Language to Make it Concrete and Specific*. The Hague: SNV Netherlands Development Organisation.

Rillo, A.D. (2022), 'Digital Transformation and Post-Pandemic Recovery in ASEAN', Presentation, Intergovernmental Group of Experts on E-commerce and the Digital Economy, Fifth Session, UNCTAD, Geneva, 27–29 April.

Shrestha, U.S. (2021), 'Earthquake Mitigation and Its Effect on Eco-environment and Social Development: A Case Study from Tamakoshi River Basin of Central Mountain Region, Nepal', in A. Li, W. Deng, and W. Zhao (eds.), *Land Cover Change and Its Eco-environmental Responses in Nepal*. Singapore: Springer Nature Singapore, pp. 445–64. https://doi.org/10.1007/978-981-10-2890-8_20

Soans, A. and M. Abe (2016), 'Bribery, Corruption and Bureaucratic Hassle: Evidence from Myanmar', *Journal of Asian Economics*, 44, 41–56. https://doi.org/10.1016/j.asieco.2016.04.003

Tatsuki, S. and F. Kawami (2023), 'Longitudinal Impacts of Pre-Existing Inequalities and Social Environmental Changes on Life Recovery: Results of the 1995 Kobe Earthquake and the 2011 Great East Japan Earthquake Recovery Studies', *International Journal of Mass Emergencies & Disasters*, 41(1), pp.94–120. https://doi.org/10.1177/02807270231171504

Than, T.M.M. (2014), 'Introductory Overview: Myanmar's Economic Reforms.' *Journal of Southeast Asian Economies*, 31(2), 165–72.

Thandar, S.T. (2025), 'Myanmar's Business Environment: Resilience in Bounded Rationality,' *LinkedIn*, 10 March. https://www.linkedin.com/pulse/myanmars-business-environment-resilience-bounded-soethiri-thandar-y4ooc; U.S. Department of State, 2025.

Thein, E.E., A. Niigata, and K. Inaba (2023), 'Information Disclosure and SME Financing: A Study of Firms in the ASEAN Region', *Journal of Accounting, Business and Finance Research*, 17(2), 64–77. https://doi.org/10.55217/102.v17i2.720

U.S. Department of State (2025), *2025 Investment Climate Statements: Burma*. Washington, DC: U.S. Department of State.

United Nations (2015), *Sendai Framework for Disaster Risk Reduction 2015–2030*. New York: United Nations. https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030

United Nations Development Programme (UNDP) (2025), 'Myanmar's Long Road Back: Six Months After the Earthquake', *UNDP*, 30 September. https://stories.undp.org/myanmar-long-road-back-six-months-after-earthquake

United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), Asian Disaster Preparedness Centre (ADPC), and R3ADY Asia-Pacific (2015), *Resilient Business for Resilient Nations and Communities*. Bangkok: ESCAP, ADPC and

R3ADY Asia-Pacific. https://www.unescap.org/resources/resilient-business-resilient-nations-and-communities-0

United Nations High Commissioner for Refugees (UNHCR) (2025), *Myanmar Earthquake: Six-Month Impact Report (March–September 2025)*. Geneva: UNHCR

Van Asselt, J., H.E. Win, and Z.W. Aung (2026), 'Household-Level Impacts of the March 2025 Earthquake in Myanmar: Findings from the Ninth Round of the Myanmar Household Welfare Survey (July–October 2025)', *Strategy Support Program Research Note*, 128. Yangon: IFPRI Myanmar. https://cgspace.cgiar.org/server/api/core/bitstreams/ed9f94d5-2ed3-4046-abb8-ff42d1618a94/content

World Bank (2019a), *Myanmar Economic Monitor, June 2019: Building Reform Momentum*. Washington, DC: World Bank.

World Bank (2019b), *Myanmar Economic Monitor, December 2019: Resilience Amidst Risk*. Washington, DC: World Bank.

World Bank (2023), *Myanmar Economic Monitor, June 2023: A Fragile Recovery*. Washington, DC: World Bank.

World Bank (2023–2025), *Myanmar Economic Monitor*. Washington, DC: World Bank.

World Bank (2024a), *Myanmar Economic Monitor, June 2024: Livelihoods Under Threat*. Washington, DC: World Bank.

World Bank (2024b), *Myanmar Economic Monitor, December 2024: Compounding Crises*. Washington, DC: World Bank.

World Bank (2025a), *Global Rapid Post-Disaster Damage Estimation (GRADE) Report: Myanmar Earthquake – March 28, 2025 (report as of April 18, 2025)*. Washington, DC: World Bank.

World Bank (2025b), *Myanmar Economic Monitor – December 2025: Surviving, Not Thriving*. Washington, DC: World Bank.