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Resilience of SMMEs in South Africa: A Framework for Understanding and Mitigating Exposure to Shocks and Stressors

Small, medium and micro enterprises (SMMEs) are vital to the South African economy, generating substantial employment and contributing to the nation's overall economic growth. However, recent shock events, including floods, civil unrest, and load shedding, have highlighted the vulnerability of SMMEs and the need for a more resilient business landscape. This paper aims to investigate the resilience of SMMEs in South Africa, providing a draft framework to understand and enhance their capacity to prevent and mitigate risks associated with these events.

Through a desktop approach, including case studies and previous impact analysis, as well as discussions with other researchers and practitioners, we assess the factors that contribute to the vulnerability of SMMEs. The findings reveal that SMMEs face numerous challenges, such as limited infrastructure and insufficient risk management capabilities. Building on these insights, we propose a multifaceted framework that focuses on risk prevention, mitigation, and adaptation strategies. By integrating the perspectives of practitioners and policymakers, this paper seeks to inform the development of targeted interventions and policies that foster resilience among South African SMMEs, enhancing their ability to withstand and recover from shocks and ultimately supporting the long-term sustainability of the national economy.

After reviewing the impacts of recent shock events such as KZN floods, unrest and pandemic, and ongoing stressors such as crime and load shedding on SMMEs, a framework for understanding SMME resilience is proposed and presented as a practitioner guide for assessing and building SMME resilience.

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1. INTRODUCTION

Globally, SMMEs form the backbone of many economies and contribute considerably to economic development and innovation. In Sub-Saharan Africa SMMEs are critical drivers of growth, employment, and livelihoods, supporting over 50% of all livelihoods on the continent (both formal and informal), representing more than 90% of businesses and employing about 60% of workers (GIZ, 2021). The significance of SMMEs in South Africa is no different, with an estimated 3,3 million micro and informal businesses representing a massive component of the economy (UNDP South Africa, 2020), of which only approximately 33% are in the formal sector, the remainder being in informal sectors (Bureau for Economic Research, 2016).

While SMMEs are often lauded as the potential growth and employment engine of the South African economy, the data on their performance shows that they struggle to grow, frequently fail and are not increasing in number (Vuba, 2019). The responding support SMMEs frequently focuses on needs such as access to finance, red tape reduction or support and entrepreneur training. However, SMMEs are also the most vulnerable portion of the economy, often left exposed to the worst effects of risks, shocks and stresses without the financial safety net to recover or adapt.

Recent events in South Africa, such as the COVID-19 pandemic, the July 2021 civil unrest, the Kwa-Zulu Natal floods, and the continued energy crisis, have highlighted the vulnerability of small businesses to shocks and stressors. These events have exposed the vulnerability of micro-, small and medium-sized enterprises (SMMEs) not only to extreme weather events but also to global health emergencies and local socio-political dynamics that interrupt value chains. In addition, SMMEs in South Africa also encounter threats such as crime and challenges to their operations such as service delivery continuity, most notable currently being load-shedding.

These events call for an expanded view of the needs of SMMEs, and thus support SMMEs, through a resilience lens in the context of these shocks and stressors

The concept of urban resilience has increasingly gained traction in academic and development circles and, as a lens, can be applied to multiple aspects of urban development. It is understood that urban resilience is based on four fundamental pillars: “resisting, recovering, adapting and transforming” (Ribeiro and Gonçalves, 2019). Urban resilience can also be divided into five dimensions: natural, economic, social, physical, and institutional, which demonstrates the vast context to which resilience thinking can be applied (Ribeiro and Gonçalves, 2019). When it comes to SMME resilience, Gallopín (2006) describes enterprise resilience as the adaptative capacity ability of an enterprise to cope with, adapt to and recover from a disruption. Sanchis and Poler (2013) identify “vulnerability, adaptative capacity and recovery ability” as integral to the definition of enterprise resilience.

This paper should be read as a discussion document to encourage practitioners and policymakers in the SMME support space to engage and identify gaps in their service offerings. The paper is a desk-top assessment of concepts in urban resilience and issues affecting SMMEs and proposes an actionable needs assessment framework for SMMEs in South Africa.

1.1 Types of shocks and stressors

SMMEs face a variety of shocks and crises that can significantly impact their operations. These range from global events like the COVID-19 pandemic to local issues such as civil unrest, crime and energy unreliability.

The COVID-19 pandemic exposed the vulnerability of global economies, and the impact of this on SMMEs is addressed in brief in sub-section 2.5 below. However, there are many more shocks and crises that affect SMMEs. In the South African township context, the lack of infrastructure for street traders and small township businesses leaves these SMMEs particularly vulnerable to the environmental stresses related to climate change, for example. Global economic recessions, the national energy crisis, social unrest, and the rising cost of living present major threats to the SMME sector, which is disproportionately affected by these shocks (CENFRI, 2020).

The Cape Town Resilience Strategy (2015) provides definitions for stressors and shocks which are useful in the South African context:

- "Chronic stresses weaken the fabric of a city on a day-to-day or cyclical basis; for example, high unemployment, inadequate public transport systems, endemic violence, food insecurity and substance abuse.
- Acute shocks are sudden sharp events that threaten a city; for example, drought, fires, floods, disease outbreaks and infrastructure failure."

The diversity of the types of risks that SMMEs are faced with indicates that in order to build resilience within the sector, a holistic approach is needed that considers both financial and, often more importantly, non-financial support; at both the individual and the enterprise level of the system (CENFRI, 2020).

1.2 Needs Assessment

Support for SMMEs is supply-driven as opposed to founded on demand and needs (Peters and Naicker, 2013). Often, needs-based approaches are based on assumptions about constraints to SMME startup and growth related to entrepreneur and enterprise capacity, even though SMME failure is influenced not only by these factors but also by the business environment (Bushe, 2017).

Everyday needs frameworks help identify SMMEs' needs, whether to develop support programs or evaluate their impact. Typically, these frameworks are categorized according to their relevance to:

1. Access to finance and financial management;
2. Skills development (sector-specific and general "entrepreneurship"); and
3. Infrastructure and facilities (ranging from informal trader locations to "innovation hubs");

Other areas can include marketing, promoting SMMEs, and reducing red tape (Peters and Naicker, 2013; HSRC and EDP, 2019).

Resilience requires a slightly shifted focus, bringing together access to finance, Climate and Disaster Risk Insurance (CDRI) and Disaster Risk Management (DRM) (CENFRI, 2020), as well as reducing risk exposure through training and facilities. To grow, small and medium-sized businesses (SMEs) require capital infusions, but they also need risk financing products, such as insurance, so that assets and investments do not disappear as a result of increasingly unstable environmental and socio-political environments and so that SMMEs can adapt and flourish in the face of global threats, competition, and crises.

Carson (2013) states that although financial resilience is crucial for SMMEs to withstand shocks, financial and non-financial mechanisms are available to help SMEs achieve longevity and develop the ability to resist (and adapt to) shocks. At the same time, it is critical to consider resilience at a micro level and develop the tools or interventions that can build the resilience of individual SMMEs. The majority of risks that SMMEs are faced with occur at the micro-level and are specific to individual enterprises. Therefore, the overall resilience of SMMEs should be considered at two levels: the resilience of the individual enterprise and that of the system as a whole (CENFRI, 2020). A report by GIZ (2021) suggests that five cross-cutting interventions can assist in promoting SMME resilience:

- Strengthening training and risk assessment initiatives,
- Supporting the use of technology for real-time risk management,
- Designing fit-for-purpose insurance solutions,
- Improving coordination between ecosystem stakeholders,
- And supporting digitalization and broader aspects of recovery to build back better.

1.3. Financial inclusion solutions to SMME resilience

As noted above, financial inclusion is often central to the needs assessments of SMMEs. However, the concept of financial inclusion is often focused on access to finance for starting capital, expansion and/or cash flow management. The resilience lens introduces the importance of insurance in financial inclusion. By providing financial protection against various risks, insurance can help SMMEs recover from shocks and crises more quickly and effectively. Multiple organizations that support SMMEs are making the argument that the key to building SMME resilience is access to tailor-made insurance

products to enable SMMEs to bounce back from shocks. Insurance can assist SMMEs in managing potential shocks, accessing risk management tools, and making more viable business decisions. Currently, especially in Sub-Saharan African contexts, there is a major gap in SMME insurance uptake, with SMMEs often viewing insurance as a "grudge purchase" (CENFRI, 2022). To better serve vulnerable SMMEs and bring them the much-needed financial safety net against shocks, an approach to insurance provision is required that speaks holistically to SMMEs' needs.

Research by FinMark Trust (FMT) (2021) found that around 20% and 23% of small and medium businesses respectively are not registered with SARS. This will impact their ability to access various kinds of financial support and risk assurance products. A much higher 67% were found to be uninsured, although this varied according to categories:

- Only 7% of micro-businesses were insured. Broken down, 6% had business content cover (tools, equipment, machinery), and 4% had property/premises insurance. Most were not eligible for SASRIA[1].
- Among small businesses, 56% were insured in total. 46% had business content insurance, and 38% had property/business premise insurance. Most were eligible for SASRIA.
- Medium-sized businesses were 80% insurance – and 59% had business content insurance, while 64% had property/premise insurance. Most were eligible for SASRIA.

[1] SASRIA SOC Ltd is "the only non-life insurer that provides special risk cover to all individuals and businesses that own assets in South Africa, as well as government entities. This is unique cover against risks such as civil commotion, public disorder, strikes, riots and terrorism, making South Africa one of the few countries in the world that provide this insurance, particularly at affordable premiums" https://www.sasria.co.za/.

1.4. Technology and innovation

Financial inclusion is increasingly linked to digital inclusion. Recent years have seen a convergence of the technology and financial sectors (often referred to as "FinTech"), and this convergence offers the potential for greater access to finance through digital means (Odei-Appiah et al, 2021).

Additionally, COVID-19 accelerated the uptake of digital services; however, there remain significant "intersectional" inequalities in access, with black women left the furthest behind according to research by ResearchICT Africa (2022), which found that black women are the least likely to own a smartphone and also the least likely to access government grants and support. The main digital barrier remains access to smartphones and the high cost of data.

Noting the importance of overcoming digital divides, combining tech solutions with insurance has the potential to enable much simpler purchasing processes for SMMEs, and insurers can benefit from "reduced exposure to claims risks, accessing data, and tapping into existing SMME networks" (CENFRI, 2022).

Ultimately, policymakers, regulators, and development partners have important work to do to make the business case for holistic solutions for SMMEs. Partnerships with non-traditional organizations are critical for success in delivering on these principles. For example, the CENFRI SMME Best Practice Group consulted with stakeholders on how insurers can work with innovative partners, resulting in a series of notes documenting the unique perspectives of digital platforms, lenders, and value chain aggregators. By engaging with these non-traditional partners (i.e. beyond institutional investors and underwriters), new approaches to resilience-building can be developed and deployed, ultimately benefiting SMMEs and contributing to a more robust and sustainable economy.

2. SMME EXPOSURE TO RISKS IN SOUTH AFRICA

Vulnerability is a measure of exposure to a risk or shock (likelihood of the risk, and likelihood of being affected by it), sensitivity to the risk or shock (degree to which exposure will impact the business), and adaptability (availability of resources to recover or adapt, such as redundant capacity,

stock, finances, trading space, etc) (based on Fussel and Klein, 2006 and Morgan and Henrion, 1990).

$$\text{Vulnerability} = \frac{\text{Exposure} * \text{Sensitivity}}{\text{Adaptability}}$$

Research on the impacts of shock events and stressors on SMMES in South Africa is often limited to small sample sizes – brief surveys, those directly impacted by a specific event, or the direct beneficiaries of particular programmes – making the sample inherently skewed. This paper presents some findings on how SMMEs were affected by and responded to recent shocks and stressors before submitting a proposed framework assessing the needs of SMMEs to strengthen resilience.

2.1 The impact of the July 2021 unrest

The unrest that affected large parts of KwaZulu Natal and parts of Gauteng and isolated other areas in July 2021 had an estimated economic impact of R50 billion and 2 million jobs due to disruption to business, damage to property and theft of and damage to stock (National Treasury, 2021).

Research by Redflank (2020) found that SMMEs would lose R3.4 billion a month in revenue as they attempted to resume business after the unrest, while they needed at least R16 billion in operational funding to recover. They reported that 62% of the unrest-impacted SMMEs did not have insurance, and only 6% of impacted businesses were open as usual in the period immediately following the events, while 51% of impacted businesses in the two riot-affected provinces had closed, of which 7% had closed permanently, and 44% had closed temporarily.

Subsequently, the government, through the Department of Trade, Industry and Competition and its various entities, launched an R3.5bn fund to assist affected businesses. Approximately 1800 small and medium-sized businesses that were affected by the unrest were able to receive, collectively, R1.2bn from the Industrial Development Corporation as part of this relief (Omarjee, 2022). This included informal and rural classified businesses.

2.2 The impact of the KZN Floods

The total damage to businesses by the KZN floods experienced in April 2022 was R7bn. Five months after the floods, the Minister for Small Business Development went on a roadshow and handed over cheques worth R19 million to 45 small businesses in KwaZulu-Natal that were affected by floods (Reliefweb, 2022).

Case Study: Seriti Partners

In response to the KZN floods, Seriti, who offers various SMME support programmes, established an emergency fund to support affected informal and small businesses.

A small sample of the database of businesses supported was shared with SACN, representing only 35 businesses; no general conclusions can be drawn from the sample, but some anecdotes can be shared:

- 100% of the sample were not insured at the time of the flood, suggesting that those who turn to emergency relief do so in the absence of traditional risk assurance mechanisms
- 74% were informal in the retail and services sector. The formal businesses were made up of services, retail, manufacturing and agriculture, in that order.
- On average, 7.4 people were employed per business. Employment was concentrated in the formal businesses (registered with CIPC) and in the construction, carwash, training & and development, cleaning services, marketing, restaurant and building supply sectors.
- 43% of businesses in the sample were female-owned.

2.3 The impact of load-shedding

A study published by Nedbank RBB (2023) suggests that over 60% of township small businesses stop operations during load-shedding. Almost 66% mentioned they have shed jobs because of load-shedding. Job cuts were most visible in the food and beverage sector, as well as manufacturing. For food-related businesses, in particular, there was a risk of loss of stock during load-shedding. Another risk highlighted was increased crime during load-shedding.

Other significant impacts included increased operating costs –

specifically for alternative energy supply, including solar, coupled with lost revenue – resulting in declining margins. The report noted that business owners needed support finding the best alternative energy (specifically solar) solutions.

Finally, the report noted that some businesses have closed down, leaving people unemployed and former business owners with unresolved debt and that there was a "threat of mental health and hustling resilience impact on business owners if load-shedding continues".

2.4 The impact of crime

Another stressor is crime. While individual acts of crime can be experienced as shock events, the pervasive threat of crime is experienced as a stressor in the South African context where business owners need to invest in additional measures (costs) to protect their businesses, while others potentially under-invest and "remain small" fear of losing their investments.

The SACN State of Urban Crime Report, 2021 (SACN, 2022) found that in 2020/21, nearly half (49%) of all robberies at non-residential premises in South Africa were recorded in the nine metros and "most of these robberies take place at small businesses and have a substantial financial impact". The incidence of robberies at non-residential properties had also increased over the prior decade. Investment in improved security systems and technology (such as burglar bars, alarm systems, cameras, vehicle trackers or immobilizers, etc) were important to reducing violent and non-violent property crimes (SACN, 2022).

Additionally, studies have found that entire precincts are affected. For example, CSP (2021b) City Spatialised Economic Data - Metro Level Reports showed a firm reduction in Soweto Industrial areas, while CSP's Business Retention and Expansion (BRE) survey (CSP, 2021a) for Devland, which is between Soweto and Diepsloot, found that crime was the number one concern reported by businesses, with 37% of participants believing crime incidence was extremely high. Robberies, violent crimes, and employee theft were included in this category. As a key constraint to doing business, 59% of businesses reported corruption working with the City.

2.5 The impact of the Covid Pandemic

Globally, COVID-19 shone the light on the weaknesses in the ecosystem of support for SMMEs to adapt and recover to stresses and shocks. In Sub-Saharan Africa, due to countries' efforts to control the spread of COVID-19 in 2020, "over 90% of SMMEs experienced significant profit losses due to reduced sales, value chain disruptions and indebtedness, among many other risks" (GIZ, 2021).

Research on the impact of the Covid Pandemic on the SMME sector in South Africa shows varied results depending on which segment of the SMME sector has been surveyed (size of business, locations, and sectors), as well as which period of the pandemic is under focus (initial lockdown, lockdown waves or economic recovery). All research shows that the initial lockdown had severe impacts on the SMME sector, with many businesses suffering, if not closing altogether, while the picture becomes more nuanced by size, sector and location as the country moved out of hard lockdown – in some instances opportunities to open new services emerged, while other business sectors continued to suffer. For the purposes of this paper, key insights from the various pieces of research are that the pandemic exacerbated issues such as:

- Micro and informal businesses were not adequately considered in the lockdown regulations as sales declined to nonexistence for the duration of nearly a year after the initial COVID-19 pandemic lockdown. Furthermore, funding and support programmes primarily targeted formal and more established businesses, leaving SMMEs largely unaided and neglected (UNDP South Africa, 2020).
- In terms of job losses, informal workers and businesses were disproportionately affected, with 31% of informal workers out of work compared to 25% in formal employment (NIDS-CRAM, 2020).
- In July 2020, 96% of SMMEs reported a drop in revenue, and only 3% had received any form of financial relief (Small Business Research Specialists SBP, 2020).
- SMMEs struggled to access support due to red tape, and many experienced an inability to meet the requirements for relief funding (such as business compliance and proof of revenue)

- On a more systemic level, corruption has also been highlighted as a constraint, with examples of bribery for permits, relief funding and corruption in opportunities for suppliers related to the pandemic response (Kunene, 2020).
- Research also highlighted the comparative resilience of businesses that work in cooperative structures, such as using group-buying models, a practice common among foreign-owned spaza shops (Kunene, 2020).

The above represents a sample of shocks and stressors that have affected or continue to affect SMMEs in South Africa. There are many others that can be explored – such as drought or going into specific forms of crime or unrest.

SMMEs provide necessary goods and services to the South African economy, often to low-income households (particularly SMMEs located in townships and informal settlements). Disruptions to their operations have knock-on impacts not only on the livelihoods of business owners and employees of these businesses but also on the cost of living and access to essential services for urban households often living in poverty.

Not every business is equally exposed to each risk, however. For example, Micro and informal businesses are often located in informal settlements and/or in inappropriately zoned and underserviced areas that are thus particularly vulnerable to the effects of extreme weather events and other phenomena. Many of these businesses operate without proper infrastructure and are not insured against natural disasters and human disruption, making them highly susceptible to damage and loss.

Lessons from the shocks and stressors briefly described above indicate that while there is some knowledge about the impact of specific shocks and stressors on SMMEs, efforts to support SMMEs in the face of these events are often reactionary (relief) rather than precautionary (resilience). The rest of this paper seeks to enable SMME support practitioners to understand the resilience needs of SMMEs and proactively reduce the vulnerability of SMMEs to known stressors and shocks.

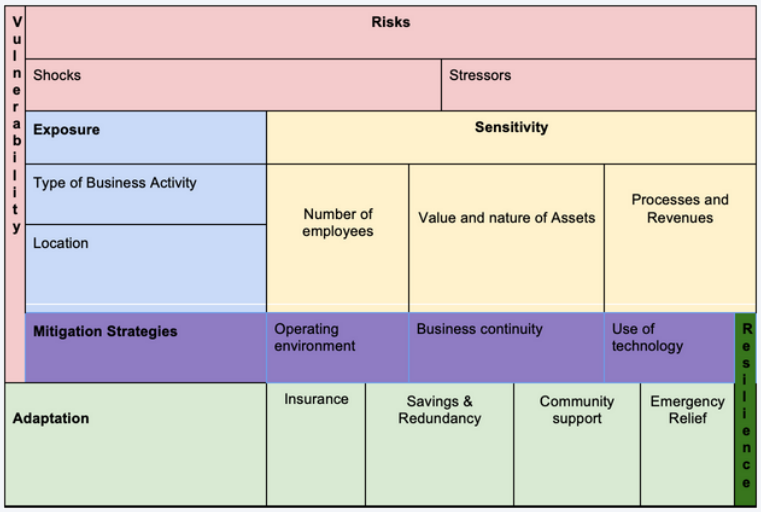
3. TOWARDS A RESILIENCE FRAMEWORK

It is possible to develop new frameworks for SMME needs in South Africa based on insight and data related to shock events like COVID-19, floods and unrest, along with common approaches to assessing resilience resulting from these crises.

There are several factors that determine the resilience of SMMEs in the face of disaster, including limiting exposure, managing sensitivities and increasing adaptability. Within these are areas of financial preparedness, business continuity planning, social capital, personal traits, and technological readiness. SMMEs that prioritize these factors and develop strategies to mitigate their risks and enhance their resilience are more likely to survive and thrive in the face of unexpected events.

In the face of various shocks and stressors, it is crucial for SMMEs to build resilience. This section outlines a proposed framework that can guide SMMEs and those who support them in understanding and mitigating exposure to risk. The aim is to provide a clear and actionable guide for SMMEs and their supporters to assess and address their unique needs in the face of potential shocks and stressors.

The proposed framework is summarised in the graphic below:



In the above framework:

Vulnerability increases with an increase in risks, exposure and sensitivity; while resilience increases with a decrease in exposure through mitigation and an increase in adaptation.

This framework is unpacked in more detail in the guide presented in sub-section 3.2 below. However, Introductory definitions are provided, informed by Fussel and Klein (2006):

Exposure:
Exposure to the shock event or stressor: This relates to the probability of the business being affected by an identified risk. The level of exposure of an SMME to a shock event, such as a natural disaster, a pandemic, or social unrest, is a key factor in determining their vulnerability. SMMEs that are located in areas with a higher likelihood of the event occurring may be more vulnerable than those located in less risky areas. Additionally, SMMEs that are heavily reliant on a single supplier, customer, or geographic region may be more exposed to supply chain disruptions caused by the shock event.

Sensitivity:
Sensitivity to the risk: this relates to the entity that is affected by the risk/event. The people, assets, and processes of a business will inform how it is affected by a particular incident or ongoing crisis and, ultimately, how this impacts revenues and individual incomes.

Mitigation:
Mitigation refers to the preparedness of entrepreneurs and businesses to reduce exposure and sensitivity. Reducing exposure can include mitigation efforts such as investing in security to reduce the likelihood of crime while investing in business continuity plans is a mitigation measure that reduces sensitivity.

Adaptation:
Adaptation refers to the ability to respond to and recover from adverse events. This can include accessing insurance or traditional savings schemes, accessing community support or accessing relief programmes.

It is also important to highlight that authors such as Bushe (2017) and Manyena (2006) emphasize the interpersonal in the likelihood of SMMEs succeeding or failing, such as:

1. Social capital: The strength of an SMME's relationships with its stakeholders, such as employees, suppliers, customers, and local communities, is also an important factor in determining its resilience. SMMEs that have strong social capital, including trust, reputation, and goodwill, may be able to access resources, support, and assistance from these stakeholders in times of crisis.
2. Personal Traits of the entrepreneur: This includes the personal resilience of the entrepreneur, including their willingness and passion to continue, their dedication to the quality of their product or service and to remain sustainable, and customer orientation (Manyena, 2006), as well as the “professionalism” of the entrepreneur (Bushe, 2017), which relates to the ability of the entrepreneur to institute business processes required for managing the business (accounting, record keeping) and managing the business environment (such as investing in security to reduce exposure to crime).

A key learning from risk industries is that efforts should first and foremost limit exposure to risks (CENFRI meeting, 2023). If mitigation is unsuccessful, however, then other strategies should be in place to ensure the business is able to recover. Efforts to limit exposure and efforts to recover require integrated approaches from different role players

3.1 Assessing SMME Resilience Needs: A Practitioner's Guide

Through the lens of SMME resilience, practitioners and policymakers can enhance the design of support packages on offer. Using the framework presented above, the assessment of small and micro enterprises' needs for support in volatile business environments involves understanding their exposure and sensitivity to risks, as well as their ability to adapt to shocks.

More detail is presented on how practitioners engaged in designing support for SMMEs can work to incorporate a resilience lens in their research and support programs.

3.1.1. Understanding Risks

The first step in building resilience is understanding the risks that SMMEs are exposed to. These can be shocks (acute) or stressors (ongoing). General categories of risks can be identified, such as environmental events, such as floods or droughts; social risks, such as criminal threats or events, social unrest and protest; or governance and infrastructure issues, such as service delivery disruptions, like load-shedding. Understanding these risks allows SMMEs to anticipate potential challenges and take proactive measures to mitigate them.

For those planning programmes of support for SMMEs, this understanding is crucial. It allows for the development of targeted interventions that address the specific risks faced by SMMEs in their unique contexts.

More specific risk identification could be made when working with businesses in a specific sector or location, as this will provide a better understanding of the precise nature of, in particular, the stressors being faced. Examples are provided in more detail in the subsequent subsection.

Box 1: Institutionalising Ongoing Resilience Support to SMMEs

Organisations and departments engaged in support for SMMEs can support the resilience of SMMEs through both pro-active and reactive approaches. Pro-active approaches will involve assessing exposure to risks and working with SMMEs to improve their mitigation and adaptation strategies, while re-active strategies could, for example, be triggered to act as part of disaster management response plans and ensure that relief or other support to SMMEs is activated timeously for specific categories of events or for SMMEs based in particularly vulnerable areas.

1. Proactive Identification of Risks: This is a crucial aspect of disaster management. However, it's important to note that risk identification should be an ongoing process, not a one-time event. Risks can change over time, and new risks can emerge, so continuous monitoring is essential.

2 Coordinated Mitigation Action: Responsibilities for mitigations and adaptations will sit with different role players. As much as it is important to support SMMEs to mitigate and adapt, it is also important to use the insights gathered to inform other relevant government or private sector work to improve the overall business environment in South Africa and reduce the exposure of SMMEs to shocks and stressors.

3. Disaster response and relief: Ensuring that economic role players are involved in the preparation of disaster management plans and that there is adequate data and information, communication channels and resources available to respond timeously in times of need.

3.1.2. Understanding Exposure to Risks

A business's exposure to specific hazards and risks indicates its likelihood of being affected by such risks. Understanding exposure to risks requires assessing the type of business activity, the location, historical information and information about mitigation strategies.

During shocks, businesses may be exposed to specific hazards depending on their type of activity. The location can provide information about specific risks the business may face based on its geographical and socioeconomic circumstances. Historical information about the business can shed light on the business's past experiences with hazards and their mitigation strategies. Mitigation strategies can include special operating times, use of generators or solar, investments in security and so on - these will vary depending on the specific hazards.

While it is important to recognize that SMMEs are not all the same, a template for assessment is suggested below:

a. Business Activity Type - This information can give insight into the type of business and what specific hazards it may be exposed to during shocks. Business “exposure” to risk and its ability to recover will be different based on the nature of the business. In preparing to support businesses to become more resilient, business owners should be engaged to understand the type of risks they experience and require support to mitigate and manage.

Table 1: Risk Mapping

Business Type	Type of Risk 1	Type of Risk 2	Type of Risk 3	Type of Risk 4
Street Traders	Stock Theft	Disruptions from Unrest	Weather-related Damages	Health & Safety Risks
Small Construction	Loadshedding	Inventory Theft	Onsite injury	Regulatory Compliance
Hairdressers	Floods	Protests	Equipment Malfunction	Staff Absenteeism
Food Service	Food Contamination due to power cuts	Supply Chain Disruptions	Health & Safety Risks	Equipment Malfunction
Home-based Retail	Inventory Theft	Online Security Breaches	Shipping Delays	Space Constraints
Freelance Services	Irregular Income	Client Non-payment	Intellectual Property Theft	Online Security Breaches
Handicraft Businesses	Supply Chain Disruptions	Health & Safety Risks	Inventory Theft	Market Volatility
Event Planning	Event Cancellations	Legal Liability	Weather-related Damages	Staff Absenteeism
E-commerce	Online Security Breaches	Shipping Delays	Inventory Theft	Platform Downtime
Small-scale Farming	Weather-related Damages	Pest/Disease Outbreaks	Price Volatility	Supply Chain Disruptions

*Note that this includes "shocks and stressors" as well as factors that are typical risks of any business in the specific sector (such as onsite injury on a construction site, for which good practice would involve health and safety training and standards on-site, as well as workman's compensation insurance).

b. Location - Knowing the suburb/township, local municipality, and province of the business can give insight into the specific hazards the business may be exposed to during a shock.

Table 2: Locational Risks

Location Type	Type of Risk 1	Type of Risk 2	Type of Risk 3	Type of Risk 4
Informal Settlements	Floods	Crime & Theft	Infrastructure Issues	Health & Safety Risks
Coastal Areas	Floods & Storm Surges	Erosion & Sea Level Rise	Infrastructure Issues	Seasonal Tourism Fluctuations
High-crime Areas	Theft & Vandalism	Employee Safety Concerns	Insurance Premiums	Reputation Management
Natural Disaster-prone	Mudslides, Floods, fires	Infrastructure Damage	Business Interruptions	Insurance Premiums
Near Transportation Hubs	Traffic Congestion	Noise & Air Pollution	Protection fees/corruption	Increased Competition

* Note that the above is illustrative only. Performing this sort of analysis together with local stakeholders can inform a Municipality's role in reducing local businesses' exposure to risks by investing in improvements to the local business environment or supporting the development of suitable business locations.

c. Mitigation efforts - this is information about what efforts the business is taking to mitigate its exposure to risks. This will vary depending on the nature of the risk but can include the use of alternative energy sources (for load-shedding), investment in security, or it can also include adapted business behaviours such as reduced operating hours - both of these represent a shadow cost to the business (one an investment, the other an opportunity cost).

Historical information about the business can be a useful source of information when performing these assessments. Historical information can give insight into the length of time the business has been operating and the level of exposure it has had to hazards over time. It can also provide insight into the business/business owners' tactics to mitigate or recover from risks in the past.

Box 2: Diving deeper into mitigation strategies

Bushe (2017) found that a lack of environmental conduciveness, including factors such as crime, contributed to SMME failure in South Africa. They also found that lack of "professional management" of these environmental circumstances, such as "security management", was further to blame. Within our proposed resilience lens, this would fall within the mitigation strategies of the entrepreneur. Further sub-categories for mitigation are proposed below:

a. Improve the operating environment:

i. Invest in infrastructure: Strengthening transportation networks, energy systems, and communication infrastructure can significantly reduce the likelihood of SMMEs being affected by shocks and stressors. Investment in infrastructure enhances overall connectivity and enables businesses to access resources and markets more efficiently, thereby bolstering their resilience.

ii. Services provision: Ensuring access to essential services such as clean water, sanitation, and waste management can improve the operating environment for SMMEs.

iii. Zoning and land use planning: Implementing effective zoning and land use planning can help SMMEs avoid locating in areas prone to natural disasters or other high-risk zones. By guiding businesses towards safer locations, municipalities can minimize the likelihood of exposure to shocks and stressors.

iv. Enhance safety measures: Promoting safety and security within business districts can reduce the risk of crime and civil unrest, which are significant threats to SMMEs. Initiatives could include increased police presence, installation of security cameras, and community-based safety programs.

3.1.3 Understanding Sensitivity to Risks

Sensitivity refers to how severe the impacts of the risk will be on key business measures.

Assessing sensitivity to risks through variables such as the number of employees, the value and nature of assets, and the revenues of the business.

The number of employees can indicate the human impact of a shock event. The value of assets can provide insights into the financial impact of a shock event, and the nature of assets could offer insights into how quickly a return to business can occur. The business revenues can reveal financial losses and cash flow impacts as well as offer insights into the business's financial resilience in the face of shocks.

Once again, an adaptable template for assessment is proposed. Factors that could contribute to sensitivity include:

a. Number of Employees - Knowing the number of people employed by the business can give insight into how many people are impacted when a business is impacted by an event (jobs and household incomes impacted)

b. Value and Nature of Assets - Knowing the estimated value of damage to the business's assets, including buildings, equipment, and stock, can give insight into the financial level (asset value) of sensitivity to shocks and potential to return to business activity (productivity impacts).

This principle is illustrated in the table below. This table should be expanded or modified to suit specific risks and asset types identified together with SMMEs.

Table 3: Asset Sensitivity

Asset Type	Sensitivity to Crime	Sensitivity to Climate Events	Sensitivity to Unrest	Sensitivity to Pandemics	Sensitivity to Loadshedding	Replacement Time
Perishable Foods	High (easy to steal)	High (spoil quickly in extreme temperatures)	Medium (disruptions in supply chain)	Medium (Lockdown, staff wellness and customer confidence)	Medium (where refrigeration is needed)	Short (quick to produce and replace)
Specialised Welding Equipment	Medium (hard to steal due to size/weight, but high value)	Low (not directly affected)	Low (not directly affected)	Low (not directly affected)	High (dependent on electricity)	Long (especially if imported)
Office Equipment (computers, printers, etc.)	Medium (can be stolen, but not as easily as cash or small items)	Low-Medium (can be damaged by floods, fires, etc.)	Medium (can be damaged in riots)	Low (not directly affected)	High (dependent on electricity)	Medium (widely available, but can be costly)
Cash	High (easy to steal)	Low (not directly affected)	High (can be stolen in riots)	Low (not directly affected)	Low (not directly affected)	Short (can be withdrawn from bank - assuming savings)
Vehicles	Medium (can be stolen, but requires more effort than cash or small items)	Medium (can be damaged by extreme weather)	Medium (can be damaged in riots)	Low (not directly affected)	Low (not directly affected)	Long (especially if specialised vehicles)

*Note that this table is illustrative only and should not be used to inform sensitivity assessments but rather to inform a method of assessment together with affected SMMEs who understand their business. Historical information can be used to validate SMME input.

This table can be used as a starting point for SMMEs to assess their own assets and their sensitivity to various risks. It's important to remember that this is a general guide, and the actual sensitivity of assets can vary depending on specific circumstances.

c. Business Revenues - Knowing the revenue of the business can give insight into the level of sensitivity to shocks from the point of view of cash flows and the likelihood that the business can continue operating.

3.1.4. Improve businesses' ability to adapt

The ability of the business to adapt to shocks or stressors refers to its ability to minimize the impact of the shock or stressor once it has occurred. SMMEs can improve their ability to adapt by assessing their insurance coverage, community assistance, redundancy, and savings. A business's insurance coverage can indicate the level of financial protection it has in the event of a shock. Community support can reveal how much support a business receives during a shock. Identifying redundancies can provide insight into the business' backup and contingency plans. A business's ability to support recovery can be determined by its savings.

Factors that could contribute to the ability to adapt, proposed for assessment, include:

a. Ability to ensure continued access to the market, or "business continuity". Business continuity planning is another component of resilience. This involves outlining specific actions to be taken in the event of a disaster, such as activating emergency protocols, ensuring the safety of employees, securing assets, and restoring operations as quickly as possible.

b. Insurance Coverage - Knowing whether the business was insured at the time of the shock and the amount received from insurance can give insight into the level of financial protection the business had during the shock.

By securing appropriate coverage, businesses can safeguard their assets and operations, ensuring a faster recovery in the event of a crisis. The FMT study (2021) showed that current SMEs are accessing insurance through a mixture of their banks and other insurance providers.

Types of insurance required will vary based on the business type and nature of risks they are exposed to. The table below is an example of an insurance assessment tool; however, this would need to be amended based on the specific SMMEs being assessed.

Table 4: Insurance Coverage Assessment

Insurance Coverage Area	Current Coverage	Adequacy of Coverage	Action Steps
Property Insurance	(e.g., buildings, equipment, inventory)	(Is the current coverage sufficient to replace these assets in the event of a loss?)	(e.g., Review policy, Increase coverage, Shop for new policy)
Liability Insurance	(e.g., general liability, product liability, professional liability)	(Does the current coverage protect against potential liability claims?)	(e.g., Review policy, Increase coverage, Shop for new policy)
Business Interruption Insurance	(Coverage for lost income and extra expenses due to a covered event)	(Is the current coverage sufficient to keep the business afloat during an interruption?)	(e.g., Review policy, Increase coverage, Shop for new policy)
Workers' Compensation Insurance	(Coverage for employee injuries or illnesses related to work)	(Does the current coverage comply with legal requirements and protect against potential claims?)	(e.g., Review policy, Increase coverage, Shop for new policy)
Vehicle Insurance	(If the business owns vehicles)	(Is the current coverage sufficient to replace these vehicles and cover potential liability claims?)	(e.g., Review policy, Increase coverage, Shop for new policy)
Cyber Insurance	(Coverage for losses related to cyber-attacks or data breaches)	(Is the current coverage sufficient to recover from a cyber event?)	(e.g., Review policy, Increase coverage, Shop for new policy)

*Note that this table is illustrative only to inform a method of assessment. Information in () is used to indicate the type of information that could be looked at together with appropriate support.

It's important to remember that insurance needs can vary greatly depending on the specific circumstances of the business, so it's a good idea to consult with an insurance professional when evaluating insurance coverage.

c. Participation in a Stokvel or group buying scheme: It is also important to recognise other forms of economic protection - such as Stokvels, cooperatives and group buying schemes. These have played a significant role in the development of SMMEs in South Africa (Bophela and Khumalo, 2019).

Rotational saving schemes and Stokvels are also important when considering that research has highlighted the importance of "social capital" in recovering from shocks and stressors - as research on Stokvels often emphasizes these networks as important sources of trust, relationships and "social capital" (e.g. Moliea, 2007).

d. Community Assistance - Insights about the social fabric in the area where the business is located, or available support through industry networks, business forums or similar can be useful to anticipate the level of community assistance in the face of shocking events or crises facing a business. The strength of an SMME's relationships with its stakeholders, such as employees, suppliers, customers, and local communities, is also an important factor in determining its resilience. Support programmes can help build these relationships, fostering trust, reputation, and goodwill within the SMME's network. The EDP and HSRC (2019) Township Development toolkit offers some methods for assessing social fabric in relation to enterprises in the township environment.

e. Redundancy - Knowing the level of redundancy in the business, such as backup systems and contingency plans, can give insight into the business's ability to adapt to a shock.

f. Savings – Knowing the extent of business or personal savings available to support recovery is another way businesses can adapt.

f. Access to relief - As was seen during the COVID-19 pandemic and in the aftermath of the KZN floods, SMMEs responded to the availability of government and privately provided relief programmes. However, these relief programmes did not reach all SMMEs who required it. The design of these programmes to match supply and demand and the ability of SMMEs to access relief when it is available and in a timely way to reduce the impact on the business and livelihoods linked to the business is critical. Engaging with businesses to identify their registration status, ability to access information, ability to submit applications, and so forth is key to supporting this area.

Overall, the combination of exposure to risks, sensitivity to risks, and ability to adapt can provide a comprehensive

understanding of the level of vulnerability of a small business to shocks and help inform the development of strategies to mitigate and manage these risks.

4. CONCLUSION AND RECOMMENDATIONS

Resilience, a multifaceted concept, refers to the capacity of individuals, communities, and systems to withstand, recover from, and adapt to adversity. This paper has underscored the importance of social and institutional factors in building resilience, including social networks, governance structures, institutional support, and personal attributes.

In the context of SMMEs, resilience should be viewed as a dynamic process that evolves over time rather than a static state (Manyena, 2006). This perspective broadens our understanding of the types of support needed for SMMEs, extending beyond an "event-based" disaster risk reduction and management approach.

The first line of defence for SMMEs is risk prevention, which requires a comprehensive understanding of the types of businesses, their locations, and unique exposure and sensitivity to various risks. By analyzing these factors, targeted strategies can be developed to minimize the potential impact of shocks on SMMEs. Due to the nature of the risks SMMEs are exposed to, this is a collaborative effort - with actions undertaken by businesses to protect themselves, as well as by the rest of society, to improve the general business environment.

Once a crisis has occurred, integrated approaches to finance, insurance, and support other business continuity mechanisms should be in place. These measures ensure that SMMEs have the resources and support necessary to recover and rebuild in the aftermath of a shock event, further enhancing their overall resilience.

The role of technology in SMME support cannot be overstated. It can either be a barrier or enhancer for SMME's operations and adaptability in the face of disruptions - influencing abilities to, for example, access information about support, file insurance claims, share digital information on prior cashflows and communicate with staff, suppliers and customers. Support programmes can assist in this area by providing access to digital solutions and training on their use.

Partnerships with non-traditional organisations are critical for success in delivering on these principles. By engaging with these non-traditional partners, new approaches to resilience-building can be developed and deployed, ultimately benefiting SMMEs and contributing to a more robust and sustainable economy.

For local government practitioners, understanding their dual role in improving the quality of the operating environment to reduce exposure to risks while also convening the ecosystem of actors involved in strengthening resilience more broadly is a recommended approach emerging from this paper.

4.1 Future Protection Needs

Comprehensive support for SMMEs aims to encompass traditional finance, product development, market access, and business support. In addition, risk identification and mitigation should be integrated into these services to help businesses anticipate and address potential challenges. By providing a holistic package of support, SMMEs can better withstand shocks and maintain growth.

In order to anticipate and address potential challenges, businesses need to understand the risks they are exposed to and methods to avoid them. This can include choosing their location, investing in security for their premise, investing in alternative energy supply, or investing in stock management systems, for example.

Strengthening municipal services is vital for reducing exposure to risks. Efforts should be directed towards improving infrastructure, public safety, and environmental management. If there is a more stable and secure operating environment, SMMEs can focus on growth and innovation rather than dealing with ongoing threats.

Insurance coverage is a crucial aspect of financial protection for SMMEs. Affordable and accessible insurance products should be developed to cover a wide range of risks, including property damage, business interruption, and liability. By securing appropriate coverage, businesses can safeguard their

assets and operations, ensuring a faster recovery in the event of a crisis.

At the same time, traditional savings methods such as Stokvels and group-buying cooperatives should not be discounted and should be incorporated into economic policy and support (Bophela and Khumalo, 2019).

Building strong relationships within the business community can lead to valuable assistance during challenging times. Underpinning these are important processes such as good inventory management and implementing robust asset and financial information systems is essential for understanding the potential impact of a shock event. Accurate estimates of damage are necessary for accessing financial protection and recovery resources. Technology can play a significant role in streamlining inventory management, enabling businesses to make informed decisions and access support when needed.

Finally, motivation for these changes can be supported by having better data on jobs maintained/created. Assessing the number of jobs that will be maintained or created post-receipt of funding can provide insight into the impact of the business on the local economy. By understanding the employment potential of SMMEs, stakeholders can build a compelling case for support and prioritize assistance to those businesses with the greatest potential to contribute to economic growth and job creation.

In conclusion, resilience in the context of SMMEs is a complex, dynamic process that requires a multifaceted approach. It involves proactive risk identification, comprehensive support services, effective use of technology, and strong partnerships. By adopting this resilience framework, SMMEs can not only withstand shocks but also adapt and transform in response to changing circumstances, contributing to a more robust and sustainable economy.

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