



Business Resilience in the Commercial Mypes of Chachapoyas: Capacities and Adaptability in the Face of Crisis (2018-2023)

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Abstract. The present study analyzes business resilience in commercial micro and small enterprises (MSEs) in Chachapoyas, Amazonas, Peru, during the period 2018-2023. Its main objective is to describe entrepreneurial resilience practices, assessing organizational adaptability, resilience and strategic diversification. Using a descriptive non-experimental approach and a cross-sectional design, data were collected from 100 MSEs through structured surveys. The results reveal that 70% of the companies have a medium level of resilience, while 28% show high levels of resilience, standing out in diversification and adaptive strategies. However, 2% show low resilience, evidencing significant vulnerabilities. The conclusions highlight the need to strengthen resilient practices through specific public policies, business training and collaboration networks. These will make it possible to improve the sustainability and competitiveness of MSEs, ensuring their capacity to face crises and promote regional economic development.

Keywords: Business resilience, Commercial MSEs, Organizational adaptability, Resilience, Strategic diversification.

1. INTRODUCTION

1.1. Importance of MSEs and their Challenges in the Crisis

Micro and small enterprises (MSEs) are fundamental pillars for local economies, especially in developing countries. These productive units not only generate employment, but also boost regional markets and foster economic inclusion in their communities (OECD, 2022). In Latin America, it is estimated that MYPES constitute between 80% and 90% of the business fabric, playing an essential role in local economic development (García & López, 2021). In Peru, these enterprises are vital for less urbanized regions, such as Amazonas, where opportunities for formal employment and economic alternatives are limited (Pacheco et al., 2021).

In the province of Chachapoyas, MSEs not only contribute to economic development, but also play a critical social role in sustaining family income and local commerce. However, they face significant challenges, such as limited access to formal financing, low adoption of technologies and dependence on vulnerable sectors, which accentuates their fragility in crisis contexts (Medina & Schneider, 2021; Hernández & Contreras, 2021). During the COVID-19 pandemic, these structural vulnerabilities became evident, threatening the continuity of many companies (Gómez & Torres, 2021).

Organizational resilience, defined as the ability to adapt and recover in the face of adversity, has become a key strategy for the sustainability of MSEs (Wu et al., 2020; Arce & Linares, 2020). Recent research has pointed out that those firms with greater resilience not only survive crises, but manage to thrive in challenging environments (Ochieng et al., 2022; López & González, 2022). This approach is particularly relevant for MSEs in Chachapoyas, due to the region's economic dependence on these enterprises and the adverse conditions they regularly face. Therefore, analyzing their adaptability, resilience and diversification capacity is crucial to understand their impact on regional economic stability (Almeida & Pacheco, 2024).

1.2. Research Problem: Understanding Resilience in MSEs in Chachapoyas

Despite their economic and social relevance, little research has explored the dynamics of business resilience in the specific context of Chachapoyas. MSEs face greater difficulties than large firms in adapting to abrupt changes due to their financial and organizational constraints (Medina & Schneider, 2021). This increases their vulnerability and risk of closure in the face of unforeseen situations, such as global economic crises or natural disasters (López & Ramírez, 2021).

In the case of Chachapoyas, the lack of structural preparedness of MSEs amplifies these difficulties, compromising not only their sustainability, but also regional economic stability. According to Ayala and Ríos (2022), improving resilience in MSEs can transform these enterprises into agents of change and sustainable development, which highlights the importance of this study to address their limitations.

The main research question is: How does business resilience manifest itself in terms of organizational adaptability, resilience and strategic diversification in commercial MSEs in Chachapoyas during the period 2018-2023?

1.3. Objective: Describe the resilience practices in the MSEs of Chachapoyas

The main objective of this study is to describe business resilience practices in commercial MSEs in Chachapoyas, assessing three key dimensions:

1. **Organizational Adaptability:** Analyze the responsiveness to change and operational flexibility of companies.
2. **Resilience:** Examine the contingency plans and post-crisis strategies implemented.
3. **Strategic Diversification:** Evaluate how diversification in products, services and markets contributes to its resilience.

Specific objectives include:

- Analyze the capacity to respond to changes and operational flexibility in commercial MSEs in Chachapoyas.
- Evaluate the effectiveness of contingency plans and post-crisis recovery mechanisms.
- Examine diversification strategies in products, services and markets, and their impact on business stability.

1.4. Relevance of the Study for Business Support Policy Design

This study is relevant because it provides critical information for the design of public policies adapted to the local context. As argued by Pacheco et al. (2021), effective policies must be based on a thorough understanding of the business dynamics and challenges specific to each region. In Chachapoyas, where MSEs form the basis of the economic fabric, strengthening their resilience can generate significant impacts on both the local economy and social welfare.

Furthermore, business resilience can serve as an engine for sustainable development by promoting economic stability, reducing poverty and improving social inclusion in vulnerable communities (Almeida & Pacheco, 2024). Therefore, this study not only has local implications, but also provides lessons applicable to other regions with similar characteristics.

2. METHODOLOGY

2.1. Type and Level of Research

This study is of a non-experimental type, given that variables are not manipulated, but rather their characteristics and behaviors are observed and described. This design allows examining how various dimensions of entrepreneurial resilience manifest themselves in commercial MSEs in Chachapoyas without altering their natural dynamics (Hernández-Sampieri et al., 2018). The descriptive level is appropriate, as the main purpose is to analyze and characterize practices related to organizational adaptability, resilience and strategic diversification, providing a detailed but not causal perspective (Medina & Schneider, 2021).

2.2. Research Design

The research follows a descriptive cross-sectional design, collecting data at a single point in time. This approach allows us to obtain a timely view of current resilience practices in commercial MSEs in Chachapoyas during the period 2018-2023 (Gómez & Torres, 2021). Such a design is ideal for identifying patterns and trends at a specific point in time, providing a "snapshot" of firms' ability to cope with crises and adapt to change (Wu et al., 2020).

2.3. Population and Sample

The target population is composed of micro and small enterprises (MYPES) in the commercial sector in the city of Chachapoyas, Amazonas, Peru. Due to the lack of an updated census, the sample size was estimated using data from local chambers of commerce. Applying a sampling formula for finite populations with a 95% confidence level and a 5% margin of error, a representative sample of 100 MSEs was selected. This approach guarantees the representativeness and reliability of the data obtained (OECD, 2022; López & González, 2022).

2.4. Measuring Instrument

A structured survey was used as the primary data collection instrument, designed to assess business resilience across three key dimensions:

2.4.1. Organizational Adaptability

- **Responsiveness to change:** Items such as "The company adapts quickly to market changes" and "Innovation and creativity are encouraged" are included, which evaluate flexibility in the face of external changes (López & Ramírez, 2021).
- **Operational flexibility:** Items such as "The company adjusts its operations according to demand" and "Invests in training to increase flexibility", reflecting the ability to adapt operations in the face of crises (Medina & Schneider, 2021).

2.4.2. Resilience

- Contingency plans: *It states aspects such as "The company has specific plans for different crises" and "It includes clear financial strategies in its plans"* (Hernández & Contreras, 2021).
- Post-crisis mechanisms: *Evaluated through items such as "The company has clear protocols for recovery" and "Provides emotional support to employees after crisis"* (Gómez & Torres, 2021).

2.4.3. Strategic Diversification

- Products and services: It states that "The company diversifies its offerings to reduce risks" and "Product variety contributes to growth" (Wu et al., 2020).
- Market strategies: Items such as "Strategies are developed to attract and retain clients" and "Markets are segmented according to specific needs" highlight the stability of the client base (Pacheco et al., 2021).

The five-point Likert scale, from "Strongly Disagree" to "Strongly Agree", allowed to capture variations in respondents' perceptions, providing detailed data on business resilience.

2.5. Procedure

Data collection was carried out through face-to-face interviews at the premises of the selected MSEs. Before starting, the objectives of the study were explained and informed consent was obtained from the participants, ensuring confidentiality and anonymity (Hernández-Sampieri et al., 2018). This face-to-face method allowed doubts to be resolved in real time and improved the response rate. The process, which expanded over two months, complied with the ethical principles of the research.

2.6. Data analysis

The data were processed using SPSS software (Statistical Package for the Social Sciences), version 27, which facilitated the organization and statistical analysis of the information collected. Descriptive techniques were applied, such as central tendency (mean, mode) and dispersion (standard deviation), in addition to frequencies and percentages to analyze the key dimensions (Medina & Schneider, 2021). The results are presented in tables and graphs, facilitating interpretation and comparison, and allowing a comprehensive understanding of business resilience practices in MSEs in Chachapoyas.

3. RESULTS

SO1: Analyze the organizational adaptability of commercial MSEs in Chachapoyas, considering their capacity to respond to changes and operational flexibility.

Table 1: Organizational adaptability.

Level	N	%
Low (10-24)	3	3.0%
Medium (25-37)	55	55.0%
Tall (38-50)	42	42.0%
Total	100	100.0%

3.1. Interpretation Results

Table 1 Organizational Adaptability presents the levels of adaptability in commercial MSEs in Chachapoyas. It is observed that **55%** of the enterprises have a medium level of adaptability, which indicates a moderate capacity to respond to changes and be flexible in their operation. In addition, **42%** of the companies show a high level of adaptability, which reflects a considerable readiness to face changes and adapt to unforeseen situations. However, **3%** of MSEs are at a low level, which makes them vulnerable to changes in the environment due to their limited adaptive capacities.

SO2: Assess the resilience of commercial MSEs in terms of their contingency plans and post-crisis recovery mechanisms.

Table 2: Resilience.

Level	N	%
Low (10-24)	21	21.0%
Medium (25-37)	61	61.0%
Tall (38-50)	18	18.0%
Total	100	100.0%

3.2. Interpretation Results

Table 2 Resilience shows the levels of resilience in commercial MSEs in Chachapoyas. The results indicate that **61%** of the enterprises are at a medium level of resilience, suggesting that they have some contingency plans and mechanisms in place, although they are not completely robust. Eighteen percent of the MSEs have a high level of resilience, which reflects adequate preparation and resilience to face and overcome crisis situations. However, **21%** of the companies are at a low level of resilience, which implies that they could have significant

difficulties in recovering from crises or interruptions in their operations.

SO3: Examine the diversification of products, services and market strategies of MSEs to determine their role in business resilience.

Table 3: Diversification and strategy.

Level	N	%
Low (10-24)	2	2.0%
Medium (25-37)	46	46.0%
Tall (38-50)	52	52.0%
Total	100	100.0%

3.3. Interpretation Results

Table 3: Diversification and Strategy shows the levels of diversification in products, services and market strategies in commercial MSEs in Chachapoyas. The data indicate that 52% of the enterprises are at a high level of diversification, which suggests a significant variety of products or services and a well-defined market strategy, contributing positively to their business resilience. Forty-six percent of MSEs have a medium level of diversification, which implies some diversification, although with room for improvement in terms of variety and strategic focus. Only 2% of the companies have a low level of diversification, which represents exposure to risks due to the lack of variety in their products or services and market strategies.

GO: Describe business resilience practices in commercial MSEs in Chachapoyas, assessing their organizational adaptability, resilience and strategic diversification in the face of crises in the period 2018-2023.

Table 4: Business resilience.

Level	N	%
Low (30-70)	2	2.0%
Medium (71-110)	70	70.0%
High (111-150)	28	28.0%
Total	100	100.0%

3.4. Interpretation Results

Table 4 Business Resilience presents the levels of business resilience in commercial MSEs in Chachapoyas. The majority of the enterprises, 70%, are at a medium level of resilience, indicating that these enterprises possess basic resilience practices, but with room for improvement in organizational adaptability, resilience and strategic diversification. Twenty-eight percent of MSEs have a high level of resilience, reflecting well-established practices that allow them to face and overcome crises more effectively. However, 2% of the companies have a low level of resilience, indicating vulnerability to critical events and the need to strengthen their business practices.

4. DISCUSSION

SO1: Analyze the organizational adaptability of commercial MSEs in Chachapoyas, considering their capacity to respond to changes and operational flexibility.

The results obtained in this research are consistent with several recent studies on organizational adaptability in MSEs. Garcia and Lopez (2021) found that, in unstable economic environments, MSEs predominantly show medium levels of adaptability, attributable to limitations in financial resources and management knowledge to implement changes. This situation is similar to the 55% of MSEs in Chachapoyas with a medium level of adaptability, indicating that, although they have an adaptable structure, they lack the necessary resources for greater responsiveness.

In a study by Fernandez and Martinez (2022) on MSEs in the commercial sector in Latin America, it is highlighted that companies with high adaptability tend to adopt a change-oriented organizational culture and are willing to invest in technological tools. This is related to the 42% of MSEs in Chachapoyas at a high level of adaptability, which suggests that these companies may have integrated advanced management practices and technologies that facilitate their adaptation to new circumstances.

On the other hand, Hernández et al. (2023) concluded that MSEs with low adaptability face difficulties to survive in times of crisis due to lack of financing and training. This finding is relevant for the 3% of firms in Chachapoyas with low adaptability, as these firms could benefit from specific strategies to improve their adaptive capacities.

Finally, Almeida and Pacheco (2024) highlight the relevance of collaborative networks among MSEs as an effective strategy to improve organizational adaptability. According to their findings, inter-firm collaboration can foster greater collective responsiveness. This recommendation is applicable to MSEs in Chachapoyas, especially

those at low and medium levels of adaptability, as a collaborative approach could strengthen the resilience of the sector in general.

SO2: Assess the resilience of commercial MSEs in terms of their contingency plans and post-crisis recovery mechanisms.

The resilience of MSEs is fundamental for their sustainability and success over time, especially in contexts of uncertainty. Recent studies reflect the importance of having well-defined contingency plans and recovery mechanisms. Garcia and Rivera (2021) state that MSEs that implement contingency plans have a greater capacity to cope with crises, which coincides with the 61% of MSEs in Chachapoyas that present a medium resilience. This medium level may be due to a basic, but insufficient, preparedness to face severe crises.

In addition, Hernández and Torres (2022) identified that high resilience is related to a proactive organizational culture and investment in contingency infrastructure, elements present in 18% of the MSEs in Chachapoyas with high resilience. This suggests that these companies have resources or strategies that strengthen them in the face of adverse events.

In contrast, the study by Diaz and Martinez (2023) shows that MSEs with low resilience (similar to the 21% found in this research) often face serious problems in reestablishing themselves after crises due to a lack of resources and planning. This is particularly worrisome in the case of Chachapoyas, as these enterprises could be significantly affected by future crises if they do not improve their recovery mechanisms.

Finally, the work of Almeida and Pacheco (2024) on collaborative networks among MSEs suggests that cooperation among firms can improve the resilience of those with fewer resources through knowledge sharing and the creation of collective strategies, a recommendation applicable to the Chachapoyas context to strengthen firms with low resilience.

SO3: Examine the diversification of products, services and market strategies of MSEs to determine their role in business resilience.

Diversification of products, services and market strategies is a key factor for the resilience of MSEs, especially in contexts of uncertainty and competition. Recent studies argue that greater diversification in products and markets allows companies to better adapt to changes in demand and reduce risks. According to López and Ramírez (2021), diversification is a fundamental strategy for MSEs in volatile markets, as it allows faster adaptation to fluctuations in demand, which coincides with the 52% of MSEs in Chachapoyas that have a high level of diversification, reflecting a tendency toward resilient strategies.

On the other hand, Hernández and García (2022) state that MSEs with a medium level of diversification, such as 46% of firms in Chachapoyas, tend to rely on few products or services, which limits their ability to adapt to abrupt changes. This suggests that these firms could improve their resilience by expanding their offerings and diversifying into new markets or services.

In the case of the 2% of companies with low diversification, Diaz and Pacheco (2023) observe that MSEs with little variety of products and services are highly vulnerable to changes in the market, since they do not have a diversification "cushion" that allows them to compensate for drops in sales in a specific segment. This is especially relevant for MSEs in Chachapoyas with low diversification, as their exposure to risk is significant if they do not strengthen their strategies.

Finally, the study by Almeida and Sousa (2024) suggests that the development of a support and cooperation network among MSEs to explore joint diversification opportunities can be an effective strategy to improve business resilience, applicable to MSEs in Chachapoyas to strengthen their product diversification and market strategies.

GO: Describe business resilience practices in commercial MSEs in Chachapoyas, assessing their organizational adaptability, resilience and strategic diversification in the face of crises in the period 2018-2023.

Business resilience is essential for the survival of MSEs in uncertain environments, as it allows them to adapt and thrive in the midst of crises. Recent studies highlight the importance of sound practices in adaptability, recovery and diversification to strengthen resilience. According to Jiménez and Torres (2021), a medium level of resilience in MSEs, such as that of 70% of the enterprises in Chachapoyas, is common due to limitations in resources and in the formalization of crisis management practices. These authors argue that, although these enterprises have some resilience practices, they lack advanced strategies that could improve their capacity to face adverse situations.

On the other hand, López and González (2022) found that a high level of business resilience, present in 28% of MSEs in Chachapoyas, is associated with a combination of organizational adaptability, product diversification and effective recovery strategies. These enterprises have implemented resilient practices that allow them to respond more nimbly and effectively to crises, which is key to their long-term sustainability.

Ramirez and Perez's (2023) study on the vulnerability of MSEs in economic crises indicates that firms with low resilience (such as 2% of MSEs in Chachapoyas) tend to face serious challenges to remain operational, due to the lack of contingency plans and adaptation practices. This finding highlights the need to strengthen resilience practices in these enterprises to reduce their vulnerability and improve their response capacity.

Finally, Martínez and Díaz (2024) emphasize the value of support networks among MSEs to strengthen their resilience. They recommend the creation of networks to share resources and resilience strategies, especially in

crisis contexts, a strategy that could be useful for MSEs in Chachapoyas, especially those with low and medium levels of resilience.

5. CONCLUSIONS

- The organizational adaptability of commercial MSEs in Chachapoyas is predominantly at a medium level, indicating a moderate responsiveness that could benefit from improvements in resources and management knowledge. Forty-two percent of MSEs show a high level of adaptability, which places them in a favorable position to face change. This group represents a potential role model for other companies. The small percentage of firms with low adaptability is especially vulnerable to external changes, which highlights the need for interventions to strengthen their organizational capabilities.
- The resilience of commercial MSEs in Chachapoyas is predominantly medium, indicating that many enterprises have basic resilience mechanisms, but could benefit from strengthening their contingency plans. Eighteen percent of MSEs show high resilience, reflecting adequate preparedness that positions them well to face crises and regain stability. Companies with low resilience (21%) are vulnerable to crisis situations and require improvements in their recovery plans to ensure their sustainability.
- The majority of commercial MSEs in Chachapoyas, with 52% at a high level, demonstrate adequate diversification in products, services and market strategies, which contributes positively to their resilience. Forty-six percent of MSEs show a medium level of diversification, suggesting potential for improvement to diversify their offerings and explore new market segments. Companies with low diversification, although representing only 2%, are vulnerable and could benefit from expansion strategies to reduce risks in times of crisis.
- Business resilience in commercial MSEs in Chachapoyas is predominantly medium level, indicating that most of these enterprises have basic resilience practices, but could benefit from strengthening their adaptability, recovery and diversification strategies. Twenty-eight percent of MSEs show a high level of resilience, reflecting sound practices that prepare them well to face and overcome crises. Enterprises with low resilience, although representing only 2%, are vulnerable to crises and require support to develop and improve their resilience practices.

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