

RESEARCH PAPER

Re-conceptualizing micro small & medium enterprises of Pakistan for sustainability and competitiveness via integrated RBV-PESTEL approach

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ABSTRACT

Goal: To examine the interrelationship of various factors and their integration with sustainability and competitiveness among MSMEs while identifying size-specific challenges and response strategies within an integrated framework.

Design / Methodology / Approach: An exploratory qualitative method is used. Data from 30 MSME CEOs in diverse sectors using semi-structured interviews was taken. The study integrated RBV and PESTEL perspectives to develop the themes whereas interview data was coded and analyzed in NVivo. Various qualitative analysis techniques namely word cloud, hierarchical charts, and mapping techniques were carried out.

Results: Findings reveal distinct patterns for enterprise sub-categories. Micro-enterprises remain vulnerable due to financial, technological and policy constraints but rely on digital tools and product uniqueness for survival. Small enterprises invest in sustainability and workforce development yet face regulatory and cost volatility. Medium enterprises show strategic maturity through automation and certifications but encounter regulatory barriers. Leadership, relational capital and innovation emerge as key resilience drivers for all MSMEs. The presented framework helps re-conceptualize the MSMEs for achieving sustainability and competitiveness.

Limitations of the Investigation: The qualitative design and contextual focus on Pakistan may restrict generalization in certain aspects.

Practical Implications: The importance of financial access, digitalization support, and regulatory reforms to enhance MSME competitiveness is highlighted. Importantly, the integrated framework provides an approach for sustainable and competitive MSMEs.

Originality / Value: The research contributes in terms of an exploratory insight to various MSMEs sub-categories for linking sustainability and competitiveness through an integrated RBV-PESTEL framework.

Keywords: MSMEs; Sustainability; Competitiveness; Developing economies; Integrated RBV-PESTEL framework.

1 INTRODUCTION

Micro small and medium enterprises (MSMEs) are primarily classified based on the number of employees and annual turnover of the enterprise (Abawa & Raghurama, 2017). Micro small and Medium enterprises (MSMEs) are critical to any society for their economic contribution in terms of job creation (APEC, 2024), stimulation of innovation, generation of employment and diversification of industry. These have been cited to constitute 90% of businesses and create 50%

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job opportunities (World Bank, 2017). They bring stability in local supply chains and decrease dependency on imports and thus lead to a sustainable economy (Rinaldi et al., 2022).

In the context of developing countries, their significance is even higher due to already constrained social and economic pressures. MSME generated employment growth is associated with reduced poverty (Cosa, 2025). It has been reported that closing the productivity gap between MSMEs and larger corporations could lead to a 10% increase in GDP in developing economies (McKinsey Global Institute, 2024). This highlights on their potential impact on societal progress of developing countries and stability in general.

Pakistan is a developing country, having 64% of its 241.49 million population (Pakistan Bureau of Statistics, 2023) below 30 years of age (UNDP, 2018); there thus exists a crucial need to generate employment opportunities to engage the young workforce for productive and positive contribution to society. Pakistani MSMEs contribute 40% to its GDP (Arshad et al., 2020) and thus share an important stake in the overall economic landscape of the country. Moreover, they have led to the creation of many jobs for unskilled and low-income workers especially in the rural areas (Jassim & Khawar, 2018). Overall, MSMEs cater for 80% employment of the non-agricultural workforce in Pakistan. Similarly, MSMEs promote entrepreneurship and thus reduce reliance on larger corporations (Amir et al., 2020). In the context, Pakistan presents itself as a very prospective study context wherein the MSMEs act as a backbone for ensuring a smooth integration of social and economic fabric of the country considering high population, young workforce and need for employment generation.

Ironically, MSMEs in Pakistan face significant challenges, including financial constraints, inadequate infrastructure, and limited access to advanced technologies. The lack of supportive policies, access to credit and capacity-building initiatives limit Pakistani MSMEs competitiveness when it comes to global value chains (Khan & Khalique, 2014). In the face of increasing digitalization globally, the need of managerial support and proper infrastructure is already emphasized for supply chain efficiency and overall competitiveness (Ali et al., 2025). The dire need to strengthen the MSME sector of Pakistan to achieve inclusive economic growth and long-term sustainable development has been cited by others as well (Arshad & Arshad, 2019).

In the face of the need to strengthen the MSMEs of Pakistan, it is imperative that factors be exposed which inhibit their competitiveness and sustainability while providing a framework for relevant stakeholders including policy makers etc., to ensure the continued contribution of MSMEs for the economic and societal development alike. It is also important to realize that for MSMEs no particular framework could be found which takes a comprehensive/holistic view of the competitiveness & sustainability aspects for insight of the pertinent issues. The studies found in this regard are seen to be largely examining various factors/challenges in isolation and lack an integrated approach.

It is imperative to find answers as to what are the factors that affect MSME competitiveness and sustainability in Pakistan. It is also necessary to understand how internal capabilities and external environmental conditions may shape MSME performance and long-term survival. Furthermore, there is a need to examine how a comprehensive framework may support the sustainable growth and continued economic contribution of the MSME sector.

To address this gap, this study aimed to first identify the relevant factors and then develop a comprehensive framework which may act as a building block for industrial stakeholders and policy makers etc to follow-up on. Specifically, the study identifies key factors influencing MSME performance, analyzes the relationship between sustainability and competitiveness, and proposes a structured model based on RBV-PESTEL approach to enhance long-term growth. It is believed that the study contribution will help highlighting the key areas that require attention for improving long-term growth, competitiveness and sustainability of the sector.

2 LITERATURE REVIEW

The sustainability of MSMEs is defined as the ability of the enterprise to handle economic, social and environmental concerns and preserve the long-term viability of the company (Linnenluecke & Griffiths, 2013). The competitiveness of MSMEs is defined as the ability of the enterprise to effectively utilize its resources to develop its unique capabilities. Enterprises create such ability and its value that it is difficult for competitors to duplicate (Porter, 1990). Organizational performance is essential for the sustainability and competitiveness of MSMEs, as these enterprises contribute significantly to economic development through job creation and industrial diversification (Kaluku et al., 2025).

However, MSMEs are extremely vulnerable during times of turbulent markets. Due to limited regulatory support and lower quality institutional protection, MSMEs are more susceptible to disruptions resulting from major events. Batjargal et al. (2023) argue that major events, like the

COVID-19 pandemic, affect the entire entrepreneurial ecosystem by reducing available resources and increasing pressure on fragile networks. This leads to operational disruptions and reduce MSMEs ability to respond effectively to crises and market shocks (Ali et al., 2025). Additionally, behavioral and cognitive factors significantly influence MSMEs' adoption of sustainable supply chain practices, with environmental knowledge and personal norms playing a crucial role in shaping sustainability decisions (Wardana et al., 2025). The rapid industrial growth and rising environmental concerns have pushed governments introduce standards that encourage organizations to adopt more environmentally responsible practices (Ali et al., 2023). Therefore, MSMEs need to enhance their sustainability practices and competitive abilities in the rapidly evolving digital economy.

MSMEs in the developing economies experience unique challenges. Particularly in Pakistan, there is no clear and standardized definition of MSMEs. The differences in MSMEs definition causes issues with how policy makers and financial institutions classify their firms (Bashir et al., 2021). In Pakistan, major institutions, like Small & Medium Enterprises Development Authority (SMEDA), the State Bank of Pakistan (SBP), the Securities and Exchange Commission of Pakistan (SECP), and the International Finance Corporation (IFC) (Jassim & Khawar, 2018), use their own definitions of MSMEs. The criteria for defining MSMEs also vary across provinces and regions (Bashir et al., 2021). This lack of consensus makes it difficult to design a single, coherent policy framework. This lack of definition excludes many businesses from receiving financial support and policy incentives (Din et al., 2022). These definition ambiguities lead to many small firms falling into the informal economy (Dar et al., 2017) and thus the government loses tax revenue. These inconsistencies create barriers to finance and infrastructure (Javed et al., 2021). Resultingly, many MSMEs operate under constant financial stress in an uncertain policy environment that limits long-term growth. Therefore, creating a standardized format for defining MSMEs is essential.

Although MSMEs have a major contribution towards Pakistani economy, most of them operate outside of the formal economy and therefore are not registered formally. They often do not have financial and/or tax compliance records, which limits their ability to secure formal financing (Zafar & Ahmad, 2015). Banks normally require large collateral and have complex lending processes (Iqbal & Rehman, 2018). Therefore, many MSMEs opt for micro-financing and unregulated loaning (Ahmed & Yasin, 2017).

Many female-led MSMEs located in rural areas lack knowledge of basic business skills, such as accounting, planning and marketing, in Pakistan (Ahmed & Yasin, 2017). Social and gender-related barriers also exist, as many women entrepreneurs face discrimination when seeking financing and receiving training (Zafar & Ahmad, 2015). Social norms also discourage them from pursuing business-related careers (Ejaz et al., 2024).

Businesses cannot operate properly because of poor infrastructure and inaccessible markets in rural areas of Pakistan (Rana, 2000). Weak levels of technology adoption and low levels of innovation hinder the productivity of these firms and their ability to expand and grow (Zafar & Ahmad, 2015). They also have very limited access to formal financial services in rural areas (Manzoor et al., 2021).

MSMEs suffered from a broader economic downturn during COVID-19 (Ejaz et al., 2024; Shehroz et al., 2021). During this time, banks continued to favor lending to large businesses, while MSMEs continued to struggle (Ejaz et al., 2024).

Digitalization of Pakistan's MSMEs is still very limited. Many small businesses lack the education and infrastructure to utilize digital technologies and e-commerce (Manzoor et al., 2021). Participation in digital finance platforms has remained very low due to lack of confidence in the digital economy and insufficient infrastructure (Manzoor et al., 2021).

Many MSMEs reported that government initiatives exist but fail to reach them, either due to poor coordination or ineffective communication (Shehroz et al., 2021; Ejaz et al., 2024). The lack of entrepreneurial education, formal training and mentoring hindered the MSMEs' capability to manage risks, innovate and sustainably expand (Ejaz et al., 2024). Enterprises often struggle to grow because they receive weak supply chain and government support, which also limits their access to high-quality raw materials (Imtiaz et al., 2021).

Despite the growing body of literature on MSMEs, most of the available literature focuses on individual challenges, such as policy barriers or technological limitations. Whereas very limited research integrates these factors to understand how sustainability and competitiveness can be strengthened simultaneously in developing economies. It may also be argued that in order to achieve sustainability and competitiveness a particular framework may be necessitated considering that such a framework could guide the organizations to focus on some pertinent issues which could enable them to orient their working towards these critical aspects. Resource Based View (RBV) is one of the frameworks which enables any organization to focus on the internal factors while classifying them as tangible and intangible (Barney, 1991). In the context of MSMEs,

the Resource-Based View (RBV) could explain as to how MSMEs achieve competitive advantage through the effective use of internal tangible resources (e.g., financial capital and technology) and intangible resources (e.g., knowledge, skills, and managerial capabilities) (Barney, 1991; Wernerfelt, 1984). Empirical studies (Carpinetti et al., 2016; Rahman et al., 2021) show that internal capabilities such as innovation and performance measurement significantly improve firm outcomes. Additionally, internal integration and supply chain collaboration enhance performance by strengthening coordination and resource utilization (Yıldız & Yıldız, 2017; Tarigan et al., 2020).

As for the framework which focuses on external factors, the PESTEL framework maybe cited. PESTEL explains that firm performance is influenced by external environmental factors, including political, economic, social, technological, environmental, and legal conditions (Yüksel, 2012). In the context of MSMEs, these external forces shape access to resources, market opportunities, and operational constraints, particularly in developing economies where uncertainty is high (Rahman et al., 2021).

Despite the importance of both perspectives, it has been noted that prior studies which have included the frameworks while examining the factors have been limited to considering such factors either on RBV or PESTEL, separately. In the context, it is felt that integrating internal resource capabilities with external environmental conditions provides a more comprehensive understanding of MSME performance, enabling firms to enhance competitiveness and achieve long-term sustainable growth.

Therefore, this paper aims to fill this gap by examining how MSMEs can enhance their sustainability and competitive capabilities within the complex economic and geopolitical environment in Pakistan while adopting an integrated RBV-PESTEL approach.

3 RESEARCH METHODOLOGY

The proposed methodology adopts a qualitative approach wherein data collection through semi-structured interviews is analyzed through NVIVO for word cloud, hierarchy chart and mind mapping. Moreover, resource-based view RBV-PESTEL perspectives are used for understanding the factors influencing sustainability-competitiveness aspects in MSMEs of Pakistan. The reason for selecting qualitative approach was because the study aimed to develop an analytical insight and contextual understanding of the underlying issues rather than to quantify the variables; qualitative study design findings contribute to theory building which could be applied to similar contexts therefore qualitative approach was considered for the study as it enables an in-depth understanding of the perceptions, experiences, and strategic responses of MSME stakeholders regarding internal and external business challenges. Pakistan was selected as the study context for the ease of data collection and the fact that its GDP and employment have strong reliance on MSMEs. Operating under resource constraints, institutional challenges, and environmental uncertainty within the country, make it an appropriate setting to examine sustainability and competitiveness through an integrated RBV-PESTEL framework in an emerging economy. Following a preliminary literature review, the detailed views of key stakeholders involved with MSMEs were collected under consent, using semi-structured interviews based on a methodological approach (Rosala, 2024). A purposive sampling technique is employed to select respondents with relevant managerial experience. A total of 30 CEOs of MSMEs were interviewed, ensuring equal representation across micro, small, and medium enterprises (1:1:1 ratio) and inclusion of firms from diverse sectors. Demographics of the respondents and sector segregation are shown in Table 1 and Figure 1 respectively. The interview schedule included both closed and open-ended questions to gather both comparative data and the respondents' views on the factors that influence the sustainability and competitiveness of MSME. The interview protocol was developed based on an extensive review of literature to identify the key constructs. To name few, these included Capital, Product aspects, entrepreneurial orientation, Human capital etc. The interview schedule was subjected to a trial run with relevant stakeholders, industry experts to ensure clarity, relevance, and alignment with research objectives.

Affinity diagram method (Srisomthavil et al., 2020) is used to re-organize the identified factors and consolidate information through an integrated RBV-PESTEL approach. The Resource Based View (RBV) framework was used to consolidate the internal factors and Political, Economic, Social, Technological, Environmental and Legal (PESTEL) for the external factors. Analyses of semi-structured interviews were performed using NVIVO software. Analysis based on Word Cloud, Hierarchical interrelationship among the factors and mind mapping techniques was carried out after the coding of responses in the software.

It is pertinent to mention that such research approach has also been adopted by other researchers as well for undertaking the qualitative research (Andrade et al., 2020; Wong et al., 2025; Gochhait & Jain, 2026).

Table 1 - Respondents Demographics

Respondent ID	Business Type	Gender	Business Sectors
Micro	R04	Female	Home-décor/accessories
	R07	Male	Home-décor/accessories
	R11	Female	Textile/clothes/shoes
	R14	Male	Food/Beverages
	R15	Male	Textile/clothes/shoes
	R17	Female	Skin-care
	R19	Male	Furniture
	R20	Female	Home-décor/accessories
	R21	Male	Home-décor/accessories
	R22	Male	Textile/clothes/shoes
Small	R01	Male	Home-décor/accessories
	R05	Male	Furniture
	R09	Male	Furniture
	R10	Female	Skin-care
	R12	Female	Property/Real-Estate
	R16	Male	Food/Beverages
	R18	Male	Home-décor/accessories
	R25	Female	Skin-care
	R28	Female	Skin-care
	R29	Female	Furniture
Medium	R02	Male	Property/Real-Estate
	R03	Female	Property/Real-Estate
	R06	Male	Furniture
	R08	Female	Furniture
	R13	Male	Home-décor/accessories
	R23	Male	Skin-care
	R24	Female	Food/Beverages
	R26	Female	Food/Beverages
	R27	Female	Property/Real-Estate
	R30	Female	Furniture

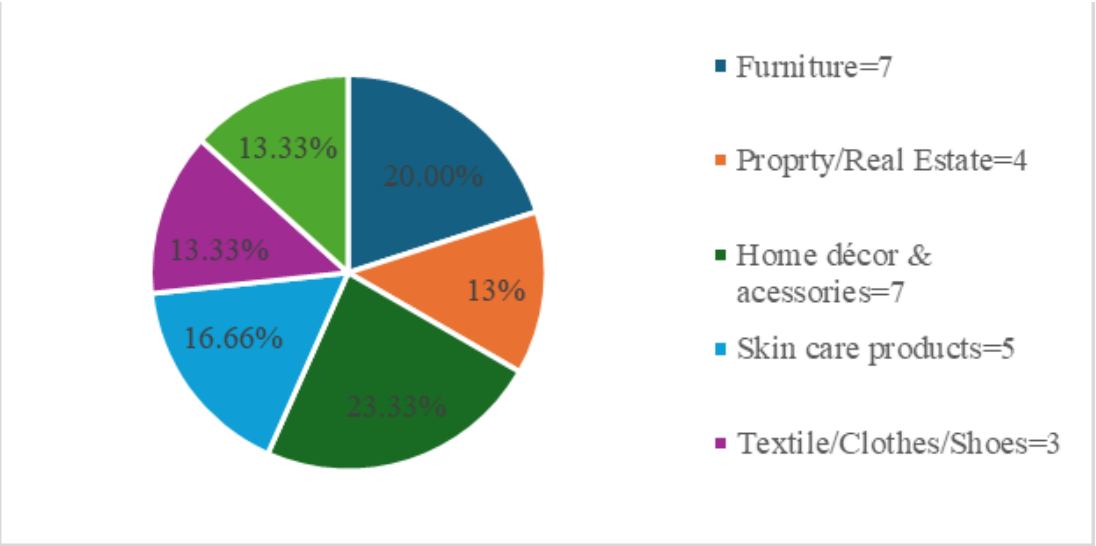


Figure 1 - Sectors of MSMEs

4 RESULTS

4.1 Codes and word cloud via NVivo

The key factors identified from the semi-structured interviews were systematically organized using the affinity diagram method. A detailed examination of these clusters revealed that they could be meaningfully classified based on their level of influence on MSME performance. In line with the RBV (Kero & Bogale, 2023), internal factors were categorized into tangible and intangible resources, whereas external factors were analyzed through the PESTEL framework (Belsare, 2025). To improve the quality of the analysis, all the variables collected were coded in NVivo. Parent and child codes are used. Stronger themes are identified using this technique. This helped in showing how sustainability and competitiveness appear across different. The hierarchical distribution of parent codes is illustrated in Figure 2.

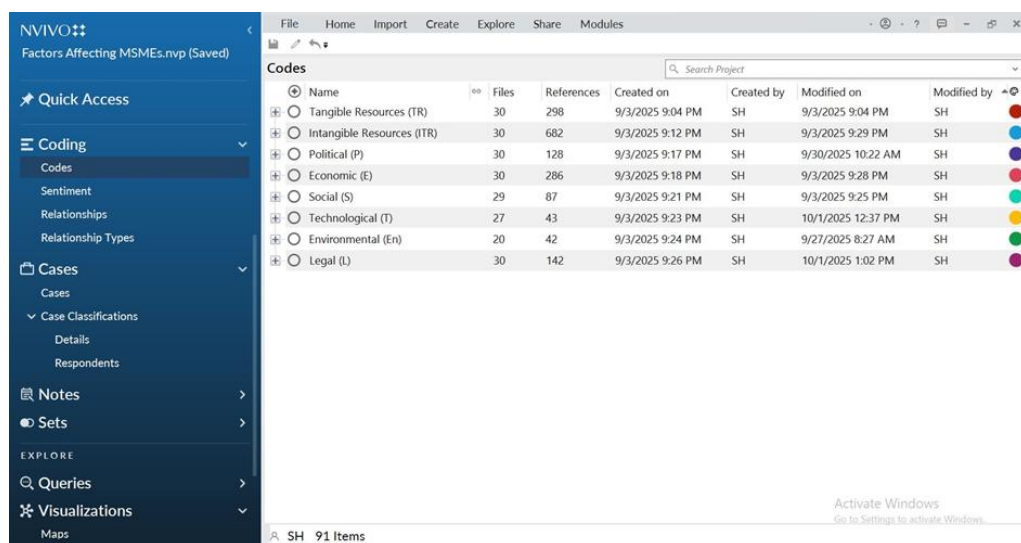


Figure 2 - NVIVO Codes

NVivo software is used to analyze the data and obtain the word cloud, shown in Figure 3, which highlights the most frequently used terms. Words like business, sustainability, competitive, challenges, resources etc., show the focus of the collected data. Highlighted words like taxes, bills, profits, finances, profitability, prices, policies show that MSMEs faces financial and regulatory pressures. The word cloud also includes the terms like management, innovation, marketing, production, quality, which point to the skills and efforts needed for MSMEs to stay competitive. Terms like environment, political, government show how external factors affect MSMEs.



Figure 3 - Word Cloud

4.2 Interrelationship among the factors

Figure 4 shows the hierarchy chart of the interrelationship among different coded factors.

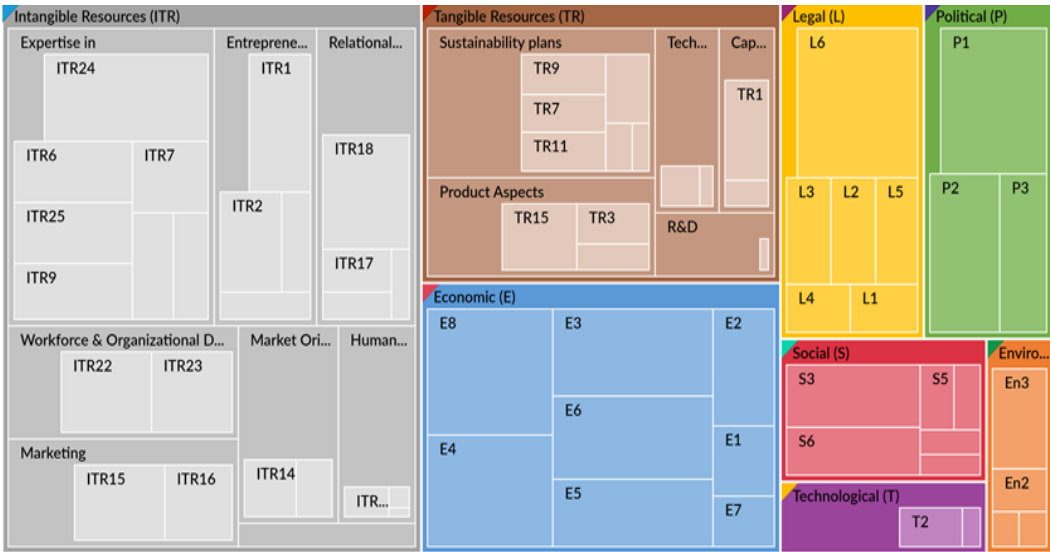


Figure 4 - Hierarchy chart

From the hierarchy chart the effect of different factors on MSMEs is visible by its presence and percentage of covered area. Table 2 provide a bird's eye-view of the themes and their abbreviations:

Table 2 - Internal (RBV) and External (PESTEL) Factors Affecting MSMEs

A. Internal Factors (RBV)	
Category	Factors
Tangible Resources (TR)	Capital
	• TR1: Finances
	• TR2: Plant/Machinery/Equipment
	Product Aspects
	• TR3: Primary Product Aspects (Design, Range)
	• TR4: Secondary Product Aspects (Packaging, Aesthetics)
	• TR15: Product Quality
	R&D
	• TR5: Infrastructure
	• TR6: Laboratories
	Sustainability Plans
	• TR7: 3Rs Policy (Reduce, Reuse, Recycle)
	• TR8: Clean Air & Water Projects
	• TR9: CSR Projects
	• TR10: Energy Efficiency Projects
	• TR11: Go Green Projects
	• TR12: Safe Planet Projects
	Technology
	• TR13: Hardware
	• TR14: IT Assets
Intangible Resources (ITR)	Entrepreneurship Orientation
	• ITR1: Innovativeness
	• ITR2: Leadership Skills
	• ITR3: Pro-activeness
	• ITR4: Risk-taking Approach
	Expertise
	• ITR5: Human Resource Management
	• ITR6: Production Management
	• ITR7: Resource/Inventory Management
	• ITR8: Risk Management

	• ITR9: Supply Chain Management • ITR24: Financial Management • ITR25: Crisis Management Human Capital • ITR10: Education • ITR11: Experience • ITR12: Knowledge Market Orientation • ITR13: Market Knowledge • ITR14: Market Intelligence Marketing Mix • ITR15: Product Marketing • ITR16: Product Pricing Relational Capital • ITR17: Community Ties • ITR18: Customer Relations • ITR19: Supplier/Distributor Relations • ITR26: B2B Ties Structural Capital • ITR20: Organizational Structure • ITR21: Organizational Culture Workforce & Organizational Development • ITR22: Employee Training & Skill Development • ITR23: Workforce Diversity, Inclusion & Cultural Adaptability
B. External Factors (PESTEL)	
Category	Factors
Political (P)	• P1: Government MSME Policies • P2: Political Stability/Instability • P3: Support to MSMEs
Economic (E)	• E1: Access to Bank Loans & Credit • E2: Economic Stability/Instability • E3: Energy Costs & Utility Bills • E4: Inflation Rates • E5: Consumer Purchasing Power • E6: Raw Material Costs • E7: Scarcity of Raw Material • E8: Internationalization
Social (S)	• S1: Availability of Skilled Labor • S2: Labor Attitude & Task Acceptability • S3: Market Competition • S4: Societal Job Biases • S5: Exhibitions/Funfairs/Micro markets • S6: Changing Consumer Behavior
Technological (T)	• T1: Access to Internet & Digital Infrastructure • T2: Reliability of Electricity Supply
Environmental (En)	• En1: Environmental Sustainability Requirements • En2: Natural Disaster Risks • En3: Pandemic • En4: Unnatural Disaster Risks
Legal (L)	• L1: Standardization/Certifications • L2: Business Registration & Licensing • L3: Industry Regulation Compliance • L4: Institutional Affiliation • L5: Trade Association Membership • L6: Taxation

4.3 Mind mapping analysis

Mind mapping analysis was conducted for MSMEs in the context of relevance of factors towards sustainability and competitiveness, and the results are presented below.

4.4 Factors affecting micro enterprises

All the factors affecting the “micro” enterprises is presented in Figures 5 to 7. The in-depth discussion is also provided herewith.

4.5 Tangible factors affecting micro enterprises

Interviews analysis indicates that the majority of micro-enterprises, R04, R07, R11, R14, R17, R19, and R20 experience significant restrictions as a result of limited financial resources. They are mostly affected in areas related to marketing and expanding their business. R04 and R20 overcome their financial limitations by utilizing low-cost approaches to promote their business through social media and by selling online. Some of the enterprises in question had certain green practices in place. R07 and R14 mentioned using environmentally friendly raw materials. R19 and R22 utilize recycling and waste reduction to focus on sustainability. R11, R21, and R22 link their operations to global sustainability goals by decreasing carbon footprints and encouraging responsible consumption. Uniqueness of the product helped micro enterprises to survive. For example: R11 creates traditional dresses. R15 make hand-made shoes. Resin art created by R20 is culturally meaningful. R04 and R14 integrate art and technology. R14 and R19 mentioned that they need updated production technology. R14, R15, and R19 clearly explained how innovation and design help them succeed. R17, R19, and R22 noted social impacts as strengths of their businesses. R19 provides jobs and trains employees. R22 has developed a program to link their business to poverty and community development. Their strength comes from digital innovation, unique products, and strong social responsibility. Their efforts however were on preliminary basis and needed more maturity.

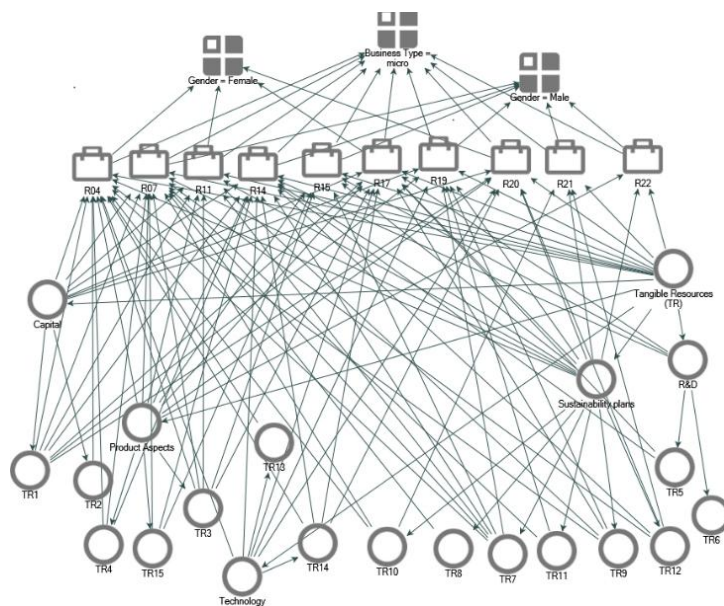


Figure 5 - Tangible factors affecting micro enterprises

4.6 Intangible factors affecting micro-enterprises

Our analysis highlighted that the intangible factors represent the backbone of the sustainability and competitive advantages of micro-enterprises. R04 stated that cultural values, leadership and customer satisfaction were the key drivers of the growth of his company. R07 stated that employee loyalty, cultural heritage and customer trust assisted his company in enduring financially difficult times. R11 highlighted the effects of leadership, gender norms and customer orientation as the success of the company. R14 stated that innovation, risk management and knowledge-based leadership were required for their enterprise to remain competitive. R15 cited cultural knowledge, customer satisfaction and company leadership as ways to mitigate the financial uncertainties of his

company. R17 mentioned that the role of leadership, networking and digital strategy in addition to having loyal customers assisted in dealing with the financial risks of business. R19 addressed skill shortages and technological deficits but was able to overcome them through social responsibility and customer trust. R20 indicated how the application of leadership, training, and customer satisfaction enabled him to maintain a balance between financial and supply issues. R21 combined leadership and customer orientation with cost saving strategies that were based on her own area of expertise. R22 benefited from hands-on leadership and the existence of strong partnership ties with suppliers, while utilizing customer satisfaction as an impetus for her business to perform well. Overall, the findings indicate that leadership, customer satisfaction, innovation, and social responsibility are the most consistent factors impacting the success of all respondents.

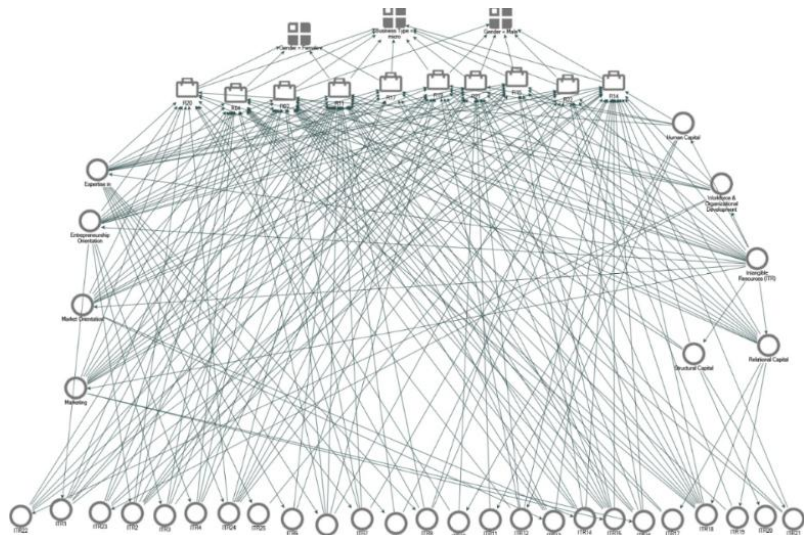


Figure 6 - Intangible factors affecting micro enterprises

4.7 PESTEL factors affecting micro-enterprises

Results of the PESTEL analysis reveal that micro-enterprises confront the same kinds of challenges across all respondents. Instability in politics and economics is the biggest challenge faced by micro-enterprises.

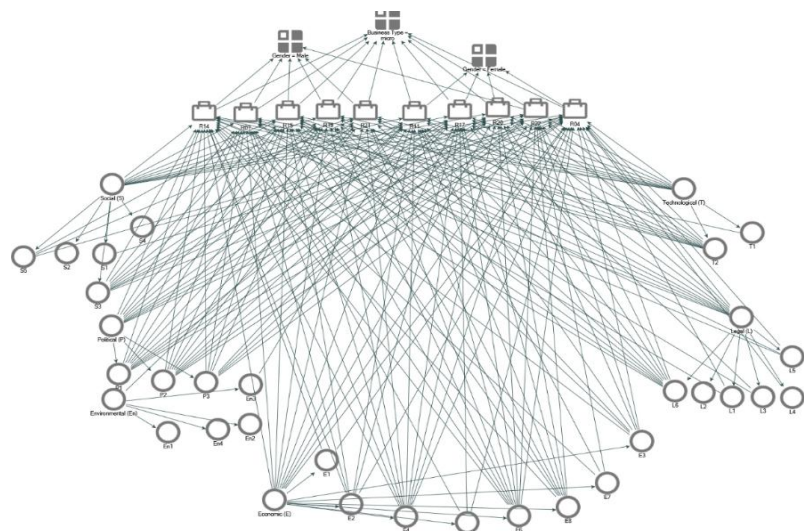


Figure 7 - PESTEL factors affecting micro enterprises

R04, R07, R11, R14, R15, R17, and R19-22 explained that high taxes and lack of governmental support constrain their growth. Unstable politics make things worse economically. Financial and social pressures affect nearly all the respondents. Most respondents considered market saturation and increasing competition as huge challenges. While cultural events provide some support, this is only to a limited degree, as identified by R15, R21, and R22. Barriers caused by technology are a problem for most respondents. R04, R07, R11, R14, R15, R17, R19-R22, stated that frequent

interruptions to power cause delays in production and increase costs. Environmental shockwaves are creating additional strain for the respondents. For instance, COVID-19 had a huge effect on R11 through supply chain disruption and shortages of raw materials. Legally, respondents face high taxes and unclear regulations. R04, R07, R11, R14, R15, R17, R19-R22, do not have access to business organizations or certification support. Overall, political instability, economic fluctuation, social competition, technological instability, environmental shocks, and legal burdens contribute to making micro-enterprises vulnerable to failure and dependent on governmental support.

4.8 Factors affecting small enterprises

Various factors that affect "small" enterprises are shown in Figures 8 to 10.

4.9 Tangible factors affecting small enterprises

Despite the fact that small enterprises face many tangible barriers, many find ways to sustain themselves. R09 relies on skilled craftsman and high-quality imported materials to manufacture durable items to compete in international markets. R10 educates workers and invests in solar panels and waste management to ensure sustainability. R12 explained that the business did not have modern technology. Even then the enterprise was able to produce its products and employ people. R16's firm built strong customer trust and loyalty. The company provided free of chemical additives milk. The milk was produced using clean biogas energy. Donations were made to the local orphanages. R18 business is related to concrete work. To reduce the negative impact of the business on its workers, R18 has installed dust-control system to protect workers; it also uses alternative energy. It participates in recycling waste. R25's enterprise has implemented sustainable methods for managing waste. The enterprise has implemented the use of digital technology and strict quality control. These practices helped the business keep loyal customers. Many enterprises faced challenges. R01's enterprise had financial issues. Profitability for R01's enterprise reduced. Due to high loan enterprise was unable to invest in research area and quality control. R05 was forced to close its manufacturing facility due to excessive production costs. However, R05 then discovered additional revenue sources. This was accomplished through "green" promotional campaigns and custom design services. R28's enterprise was struggling with high employee turnover and distrust of customers. The firm used eco-friendly practices, which were helpful for it. It also used creative marketing strategies. R29 also experienced financial instability and weak customer trust. R29 still invested in recycling and tree planting. Also, R29's enterprise used digital tools and quality control. Even tough enterprises were facing hurdles, but they remained in the business through sustainability efforts, digital adoption and strong customer relationships.

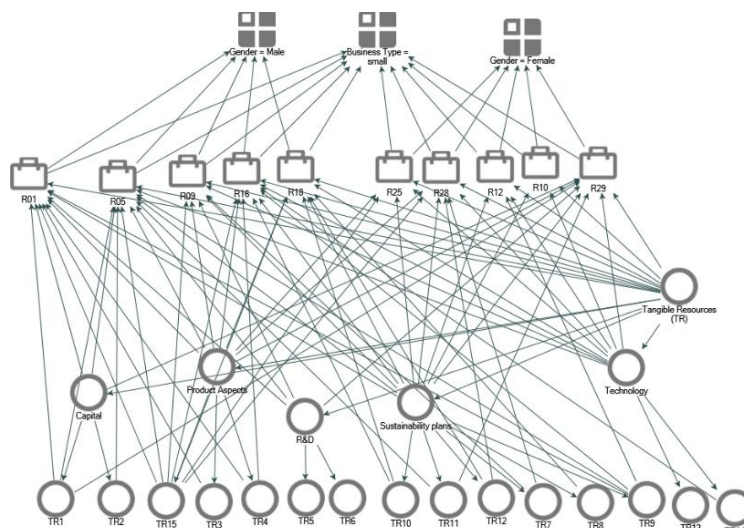


Figure 8 - Tangible factors affecting small enterprises

4.10 Intangible factors affecting small enterprises

Intangible factors play a big role in MSMEs operation and survival. R01 faces financial difficulties and weak digital skills. There is also limited investment in training and quality control. R05 struggles with inflation and employee retention. However, R05 uses effective leadership and in-house skill building to reduce these problems. R09 faced natural disasters and supply chain disruptions.

R09 also experienced a fall in consumer demand. The enterprise struggled with skill shortages as well. Despite these issues, the firm has remained stable. They survived through strong leadership and cultural awareness in their workforce. R10 faced culture barriers and marketing issues. Leadership skills of R10 helped the business.

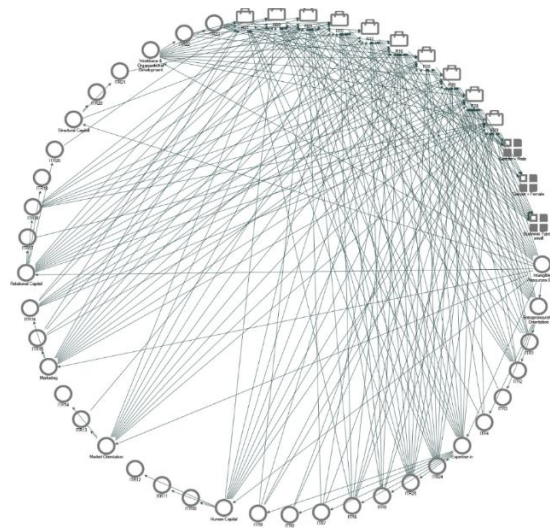


Figure 9 - Intangible factors affecting small enterprises

R12 give importance to financial discipline and gender diversity. They also highlighted the need for incentives for agents. These factors help the firm grow its presence in local markets. R16, R18, R25, and R28 explained that small firms can succeed against larger competitors. This depends on strong human resource management and good leadership. R16, R18, and R25 mentioned that small businesses can compete with large firms if they have good leadership, human resource management and innovation. They also said that talented employees, skilled workers and gender diversity can help a firm become competitive and enter international markets. R25 give importance to finances and employee education. R28 experienced employee turnover and supply chain disruptions. R29 was experiencing financial instability and customer dissatisfaction. Majority of small enterprises were affected by market instability and cultural pressures. However, they agreed that good leadership; skilled employees; and maintaining positive customer relationships are the three most important intangibles to ensure long term sustainability and resilience.

4.11 PESTEL factors affecting small enterprises

The PESTEL analysis shows that small MSMEs face many constraints. Political and economic volatility are the serious issues. R01, R05, R09, R10, R12, R16, R18, R25, R28, and R29 reported unstable governments and limited state support. They also mentioned that the effects of COVID-19 and high taxes made it very difficult for businesses to stay sustainable in the long term. They also described strong regulatory barriers. Slow and complex bureaucratic procedures create problems for businesses. Support for export related matters is very limited. R01, R05, R09, R10, R12, R18, R25, R28, and R29 stated that they faced financial issues and lower consumer demand. Most of them tackle the issues by increased prices, reduced output and some shifted to wholesale operations.

Almost all respondents mentioned social challenges. They struggled with rapidly changing consumer preferences. Market competition has increased. Unavailable skilled labor creates issues. Some noted that attending trade fairs and maintaining strong customer focus helped soften these negative effects. Technological constraints were another major concern. R01, R05, R10, R12, R16, R18, R25, R28, and R29 said they needed better machinery and digital tools. They also needed more automation to improve efficiency and reach more customers. Technological constraints were another major concern. R01, R05, R10, R12, R16, R18, R25, R28, and R29 said they needed better machinery and digital tools to reach more customers. R01, R05, R10, R12, R16, R18, R25, R28, and R29 reported high taxes and restrictive export rules. They also faced costly compliance requirements and weak policy support. These factors limit their global competitiveness and business growth. Overall, the findings show that small MSMEs face several overlapping challenges. Political and economic instability intensifies social and legal pressures. Most businesses are struggling to survive rather than expand. Yet, their resilience comes from adaptability and digital adoption.

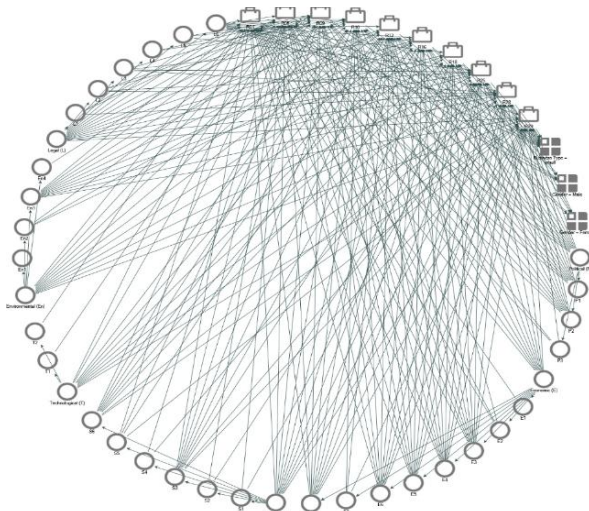


Figure 10 - PESTEL factors affecting small enterprises

4.12 Factors Affecting Medium Enterprises

All the factors affecting the “medium” enterprises are presented in Figures 11 to 13.

4.13 Tangible factors affecting medium enterprises

R02, R03, R06, R08, R13, R23, R24, R26, R27, and R30 reported several tangible challenges, such as: (i) lack of financial means; (ii) regulatory obstacles; (iii) high operational costs (production, exporting, expanding to new markets): R02 and R06 have invested in automation and quality standards certified by ISO. Similarly, R08 and R30 have invested in digital tools, e-commerce and strict control over finances to increase efficiency; (iv) sustainability has been identified as a main area of interest: R03 and R24 focus on using eco-friendly designs and local suppliers; R06 and R26 implemented recycling and tree planting strategies; R23 linked his operations to United Nations' SDGs through certifications related to the environment and the well-being of employees; (v) cultural integration and unique products represent two additional sources of differentiation among the respondents: R03 uses green architecture; R06 preserves artisanal craftsmanship; R08 creates niche boutique furniture; (vi) R13 and R27 stated difficulties accessing international markets due to resource constraints and regulations, however, they prioritize quality and product development. Finally, (vii) social responsibility is another relevant theme, since R06 and R24 created jobs in disadvantaged regions and contribute to community welfare; R08 was also able to demonstrate great resilience during COVID-19 by continuing to employ its employees despite experiencing financial difficulties.

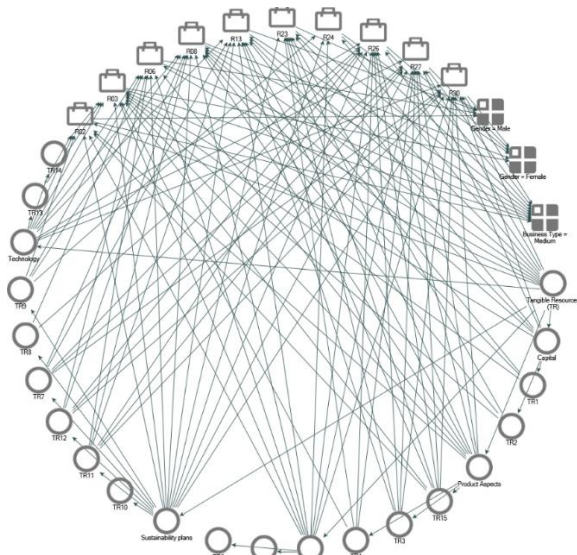


Figure 11 - Tangible factors affecting medium enterprises

Overall, the research shows that medium sized enterprises could convert tangible difficulties into opportunities. They rely on innovation, sustainability, and social responsibility to increase their competitiveness and impacts on communities.

4.14 Intangible factors influencing medium enterprises

The interviews clearly indicate that, similar to R02, R03, R06, R08, R13, R23, R24, R26, R27, and R30, medium-sized enterprises rely strongly on their intangible assets to grow and prosper even under difficult conditions. R02 increases its competitiveness through a combination of effective leadership and service-oriented culture. R03 successfully faces challenges through cost control, training, flexibility and customer orientation regardless of policy and financing difficulties. R06 and R08 emphasize the importance of relationships and build trust with their clients, distributors and employees. They also focus on the ability to respond to crises, inclusivity within the workplace and continuous improvement. R06 takes it one step further and provides training for artisans and supports employee welfare to maintain critical craft knowledge. Capability development is a common goal for R13, R26, R27, and R30 who emphasize training and proactive leadership to ensure their companies can respond quickly to unpredictable tax and policy environments.

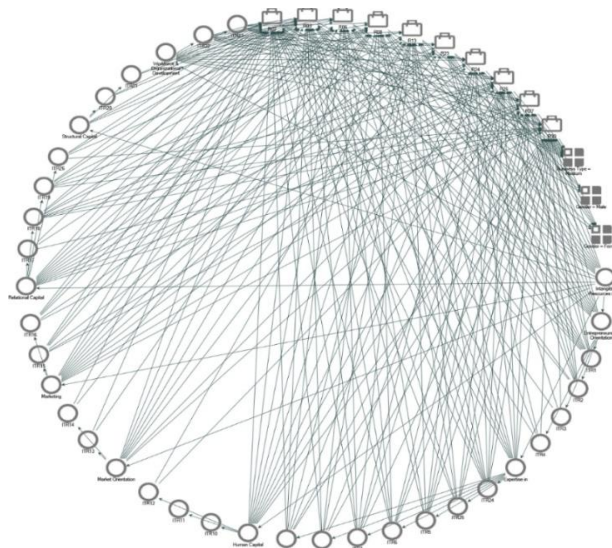


Figure 12 - Intangible factors affecting medium enterprises

R27 and R30 use formalized risk teams and disciplined supply chain systems. Digital tools and networks help increase market access. R23, R24 and R26 point out e-commerce, online presence, partnerships and regular customer care as ways to achieve increased market access. In summary, the results of the research show that even though regulation, costs and changing demand create a lot of pressure, medium-sized enterprises are able to maintain their resilience through the reliance on their intangible strengths. Quality leadership, learning cultures, strong relationships, crisis preparedness and disciplined management practices allow them to translate uncertainty into sustainable performance and positive community impact.

4.15 PESTEL factors influencing medium-sized enterprises:

The interviews indicate that, similar to R02, R03, R06, R08, R13, R23, R24, R26, R27, and R30, medium-sized enterprises experience challenges in all PESTEL factors, especially in the areas of politics and economy. R02, R03, R06, and R08 emphasized political instability and changing policies. R13, R24, and R26 indicated that the complexity of the governmental procedures and the frequency of the regulatory changes create uncertainty for the medium-sized enterprises and reduce their competitiveness. Economically, virtually all respondents expressed concerns regarding the effects of inflation and raw materials on their businesses. R06 and R08 demonstrated how the increasing production costs and decreasing consumers purchasing power caused price adjustments, which affected customer loyalty and profit margins. As a way to mitigate financial pressures, R03, R06, and R22, secured bank loans; R02 and R08 focused on structured financial planning and efficient operation.

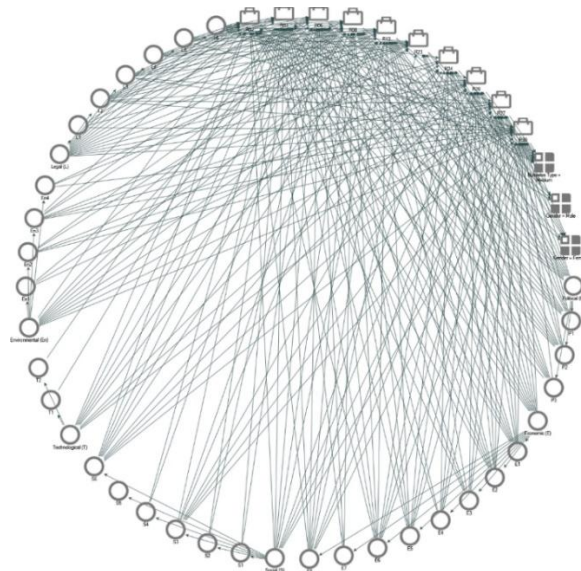


Figure 13 - PESTEL factors affecting medium enterprises

Social pressures influence the medium-sized enterprises. R13, R24, R27, and R30, indicated that they have to continually adjust their products, services and pricing to meet changing customer preferences. R06 and R08 emphasized the challenge of retaining artisans and skilled workers, therefore, they provide welfare and training programs to secure stability in their workforce. Technology is another key element. R02, R06, R08, and R26 have invested in automation, digital tools and training to enhance the operational effectiveness and to access new markets. Nevertheless, the lack of access to cutting-edge technologies continues to limit the potential for growth and scalability. Disruptions to the environment add additional burdens. R06, R23, R24, and R26, explained how COVID-19 and other crises resulted in decreased production, ongoing fixed costs and the necessity to develop crisis response plans to maintain business viability. R06, R08, R13, R23, and R30 all said that high taxes are a major problem. They struggled with compliance costs and export restrictions. They continued looking for ways to survive and move forward under these constraints. Businesses such as R08, R23, and R26 use certifications, association memberships, and sustainability practices to gain an edge. R06 and R08 also rely on innovation and human-capital development to navigate uncertainty. Overall, the findings show that medium enterprises remain adaptable through digital adoption and a global outlook. However, their full potential cannot be achieved without stable policies and tax reliefs.

5 DISCUSSION

The study provides an important insight to various factors while analyzing their relationships with the sustainability and competitiveness dimensions of MSMEs. The use of RBV and PESTEL frameworks provides the ability to link the internal capabilities of MSMEs to the external environmental pressures they experience. The study provides a holistic view of the sector, along with differentiated views of the three types of MSMEs. MSMEs' operating environment is shown through the mind mapping outcomes for Pakistan. The interaction between resource utilization at the micro level (tangible and intangible) and the resource influences from macro level (the PESTEL framework) are shown to be the primary resources that influence MSMEs. On the one side MSMEs utilize internal resources, i.e., physical assets and non-physical competencies, which provide them with the means to achieve objectives. On the other side, they exist and perform in an environment that is influenced by larger PESTEL forces. In combination, the use of internal resources and the presence of external factors produce a common operating environment that determines how MSMEs operate and will survive and compete in Pakistan. While there are distinct configurations of constraints and coping mechanisms for each type of MSME, there are also several cross-sector thematic patterns that reflect the systemic vulnerabilities and resiliency of MSMEs in Pakistan.

5.1 Micro Enterprises: Vulnerability rooted in informality and innovation at the margins

Micro-enterprises as the smallest actors within the overall economic system, are highly constrained due to a lack of capital and institutional support. Micro-enterprises R04, R07, R14 have identified the limitations of accessing funds that limit investing in production quality and marketing

outreach. Businesses are therefore adapting through creative means using affordable online marketing mediums and unique products, and those that reflect their culture to retain their market position. This is in line with earlier studies suggesting that MSMEs in constrained environments depend on adaptability and strong relationships to survive (Kraus et al., 2020).

Sustainability is emerging as both an ideology and survival strategy and a way to differentiate in the market also reflects recent research on environmentally responsible practices among firms (Wardana et al., 2025). Many micro-entrepreneur respondents (i.e., R14, R19, R22) are utilizing environmentally friendly strategies including recycling and minimizing waste. Micro-enterprises also have used their products' unique qualities based upon their regional heritages and craftsmanship (i.e., R15's handmade shoes, R11's traditional dresses) to differentiate themselves in increasingly crowded local markets. Micro-enterprises however are at a significant technology gap, especially in terms of manufacturing, where modern equipment and process automation continue to be unaffordable or unavailable for purchase. Intangible factors like visionary leadership, customer loyalty, cultural values, and social responsibility, are the backbone of micro-enterprise resilience. R17, R20 and R22 emphasize the importance of learning cultures driven by visionary leaders and community partners as being essential to enable survival in a state of uncertainty. The PESTEL analysis supports that political volatility, technological instability (i.e., power outages), inflation and legality burdens (i.e., excessive taxes, unclear regulations) continue to put micro-enterprises in a state of uncertainty. Overall, micro-enterprises continue to demonstrate adaptability and strong social ties; yet they will be highly susceptible to external shock without development of fundamental infrastructure.

5.2 Small Enterprises: Transitioning through innovation, sustainability and investing in workforce

Small enterprises, while structurally better developed than their micro counterparts, experience the same challenges related to capital and government regulation. As described by R01, R05, and R28, small enterprises are experiencing increased pressure from increasing costs associated with raw materials and employee retention. Many are responding to this pressure by stopping production, transitioning to environmentally sustainable practices, and/or including digital platforms (e.g., R09's use of imported quality materials, R10's investment in solar energy and waste management). The findings regarding the need of increasing use of digital tools and sustainable practices also aligns with studies showing how digital supply chain practices improve efficiency (Rahman et al., 2021).

Small enterprises have some clear, unique characteristics. They place greater emphasis on sustainable practices. They invest more in training their workforce in-house. They also focus on building customer loyalty through direct, personal interaction. The respondents who represent these areas include R16 and R18 who have demonstrated a commitment to social responsibility including establishing biogas plants, providing support for orphans, and using environmentally friendly building materials. These social responsibilities are a representation of ethics and an asset to build reputation and differentiate themselves from other companies.

Small enterprises are impacted by intangible factors including; adaptive leadership, gender inclusion, employee development and market knowledge. The respondents who focus on some of these aspects include R10 and R25, and they use education for employees, digitally enable their staff and implement agent-based marketing approaches. As viewed through the lens of PESTLE analysis, small businesses face multiple and complex political, economic, social and legal pressures which may negatively impact their profitability. However, enterprises ability to be flexible, innovative and develop strong connections within the communities they operate, allow them to act as resilient and inclusive agents of local economic development.

5.3 Medium Enterprises: Strategic maturity undermined by structural barriers

Medium enterprises have greater operational complexity and strategic maturity. They often have formalized organizational systems and defined plans for growth. The medium enterprises (R02, R06, R23), in terms of tangible actions, invest in modernizing technology, obtaining ISO quality assurance, automating and developing global competitiveness. Sustainability is not only practiced by these enterprises but is institutionalized into their operations, including the work of enterprises like R06 and R24 plant trees and reduce waste. Medium enterprises do well in linking their cultural identity to their commercial value proposition to attract international customers (e.g., R08's niche furniture, R03's green architectural designs). However, structural barriers exist for expanding exports and complying with regulations. R13 and R27 report that the uncertainty caused by inconsistent policy and red tape has discouraged large scale investment decisions.

Medium-sized businesses have shown enhanced intangible assets such as digital integration, leadership, strategic risk management and human capital investment. This is consistent with studies that highlight the importance of digital integration and dynamic capabilities in improving firm performance (Khan & Rahman, 2021). As illustrated by R02 and R30, companies with disciplined leadership; knowledge systems; and relationship capital have been able to successfully navigate the volatility of market conditions. Medium-sized businesses are using the formalization of their risk management teams; supply chain management; and online presence as part of their day-to-day activities. Moreover, they proactively create and sustain "ecosystems of trust", which include trust with suppliers, and consumers which in return helps business to mitigate external risks.

The PESTEL Analysis also identifies policy uncertainty, inflation, legal complexities, and digital disconnects as barriers to growth for medium-sized businesses. Moreover, mechanisms used to respond to these barriers, like structured planning and regulatory advocacy, demonstrate that medium-sized businesses are closer to achieving export-based growth if certain systemic reforms and institutional support can be provided.

5.4 Cross-cutting insights

As noted above, the mind mapping results indicate that across all three tiers (micro/small/medium) of businesses, resilience does not necessarily depend on the size of a firm or its resources, but rather on a company's intangible strengths, particularly leadership, adaptability, innovation and relational capital. While the tangible barriers to growth (i.e., financing, technology, and policy) are real; MSMEs use creative uses of digital technologies, and embeddedness in local communities to counteract these barriers. This supports the core ideas of RBV and is consistent with findings of other research works which emphasize the importance of internal capabilities in improving performance (Carpinetti et al., 2016; Yıldız & Yıldız, 2017). At the same time, as highlighted by others, external challenges such as political instability, weak infrastructure, and limited access to finance continue to create barriers for MSMEs, especially in developing economies (Ali et al., 2025).

However, systemic barriers to growth (such as political instability, economic volatility, and infrastructure fragility), will require immediate attention from policy makers for MSMEs in Pakistan to transition from surviving to growing. Therefore, policy makers should prioritize implementing targeted policy initiatives, providing low-cost digital tools, streamlining export processes and providing access to affordable capital for MSMEs. Only then will the entrepreneurial capabilities demonstrated by MSMEs in Pakistan be fully realized in terms of inclusive economic development and global competitiveness.

5.5 The Framework for Re-conceptualizing MSMEs for sustainability and competitiveness

Based on the above discussion, Figure 14 presents the proposed framework for re-conceptualizing MSMEs so they can become more sustainable and competitive. The framework begins by considering MSMEs in their existing or conventional operating conditions. The MSMEs with organizational resource factors as recognized by the RBV approach present themselves as candidates for requisite interventions as identified to ensure MSMEs alignment with sustainability and competitiveness objectives.

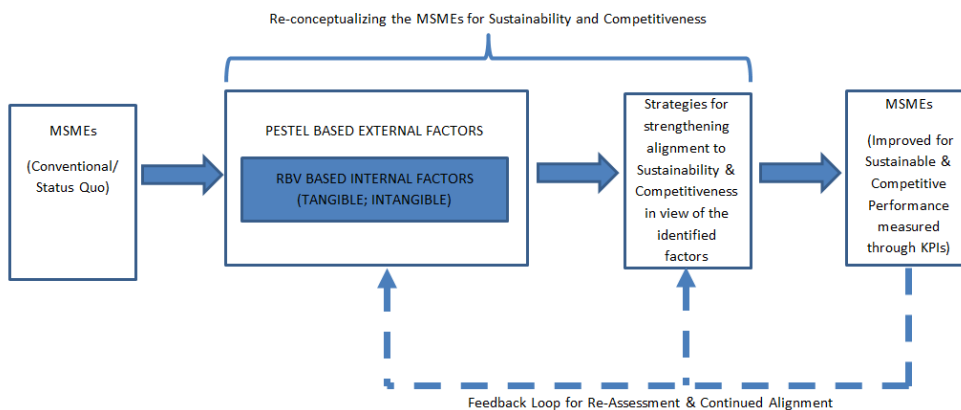


Figure 14 - The Framework for Re-conceptualizing MSMEs

The proposed framework shows how the performance of traditional MSMEs can be improved by developing their internal capabilities at the same time as they respond to changing external environments and facilitate long term sustainable growth.

6 CONCLUSION

Through an integrated RBV-PESTEL perspective this research has assessed MSME competitiveness and sustainability for Pakistan. The work is culminated by putting forth a framework on the basis of the PESTEL-RBV approach for specific MSME sub-classes.

The results indicate that micro-, small and medium sized enterprises have shared structural constraints. However, the intensity and interaction of these structural constraints are different by size with the resultant differences in priority setting and growth paths. Micro-enterprises are for the most part focused on survival and therefore need access to affordable credit, financial literacy and simple registration requirements to stabilize their activities. Small-enterprises will gain the most from digitalization incentives and training that is accessible and can improve productivity and innovation. For medium sized enterprises that currently are engaged in automation and structured sustainability initiatives, better assistance with exporting and increased opportunities for international trade is required. Additionally, enabling businesses to be able to handle various types of disruptions (such as political instability and environmental shocks) is essential to maintain the long-term sustainability of competitive businesses. Longer term success of the firms examined will depend upon policy makers providing support to the development of these abilities. This study has provided direction for action for certain stakeholder groups. Policy makers may use this framework to develop differentiable and evidence-based intervention strategies through the development of digital infrastructure and the promotion of transition to sustainability. Financial institutions may develop capability-based assessments of financial institutions and digital tools to improve credit scoring and risk analysis. Organizations such as SMEDA, Chambers of Commerce, and incubators may provide support to MSMEs. They may provide customized capacity development training programs to MSMEs that include digital literacy, sustainable production practices, leadership and innovation management; and to facilitate adoption of Gen AI, technology diffusion and to promote greater interaction between academia and industry. Together, the findings of this research have created a pathway to create a resilient MSME ecosystem that promotes innovation, social inclusion, technological readiness, and sustainable economic development across emerging economies.

LIMITATIONS OF CURRENT WORK AND POSSIBLE FUTURE DIRECTIONS

The current study presents the findings for a representative case of a developing economy by concentrating on Pakistan, which represents a case of typical emerging economy with structural challenges common to many developing countries. However, it may still be argued that each country presents its own set of institutional, social and economic dynamics and the obtained findings may need to be contextualized for local contexts for other cases. Correspondingly, the results may not be generalized universally. Nevertheless, the presented work provides a base case on which future studies may be built for identifying relevant factors and proposing framework across different regional and economical contexts while taking other investigative approaches namely quantitative and/or mixed method etc with different (larger and more diverse) sample groups.

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