

# Sustainable crisis marketing by micro-enterprises during crises – Analysis

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**Abstract:** In the current dynamic business landscape defined by volatility, uncertainty, complexity, and ambiguity (VUCA), micro, small, and medium enterprises (MSMEs), particularly micro-enterprises, have been facing extraordinary challenges in maintaining operations. Deep-tech startups have also been affected by these turbulent conditions. In response, sustainable crisis marketing has emerged as a contemporary marketing approach to help these enterprises navigate instability and hostile business conditions. This study integrates the dimensions of sustainability, crisis management, and marketing to examine how micro-enterprises perform uninterruptedly and improve performance under uncertain and disruptive conditions. This paper, part of a postdoctoral research project, outlines the identified knowledge gaps and proposes the research methodology. The research is expected to contribute to the United Nations' Sustainable Development Goal 8 (SDG-8), which emphasizes sustained economic growth and the booming entrepreneurial landscape in the Telangana region.

**Keywords:** Entrepreneurial marketing; Entrepreneurship; Micro-enterprises; Sustainability; VUCA

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## Introduction

Modern business environments are increasingly shaped by VUCA conditions (Volatility, Uncertainty, Complexity, and Ambiguity), in which various types of crises, including pandemics, wars, geopolitical tensions, climatic calamities, technological breakdowns, etc., occur frequently and unpredictably (Hitt et al., 2021; Ratten, 2021). During and after such crises, entrepreneurs, especially those managing small businesses, micro-enterprises, and deep-tech startups, face substantial challenges in continuing their business and pursuing gradual growth. Micro-enterprises play a vital role in national economies by generating employment and supporting economic stability, thereby contributing directly to Sustainable Development Goal 8 (SDG-8). Small firms and startups are particularly vulnerable to VUCA conditions, as crises, including global health emergencies, political instability, and rapid technological change, threaten their survival (Dwivedi et al., 2020). To cope, entrepreneurs must implement crisis-oriented marketing strategies to build resilience and sustain operations. These enterprises are central to inclusive economic development and job creation, reinforcing their importance in achieving SDG 8 (Weerapattanawong et al., 2022). The global business environment has been significantly reshaped by recurring disruptions, including pandemics, environmental challenges, geopolitical conflicts, and technological advancements. These developments have intensified uncertainty and required businesses to adopt adaptive strategies (Alshebami, 2025). Micro and small enterprises, which represent a large share of global economic activity, are especially exposed due to their limited resources and capabilities (Kraus et al., 2020).

Crisis marketing strategies are essential for responding to disruptions and maintaining business continuity. These include digital transformation, customer-focused communication, flexible pricing, and sustainability-oriented branding. Unlike conventional marketing, crisis marketing emphasizes adaptability, rapid response, and resilience in the face of uncertainty (Eggers, 2020; Morgan et al., 2020; Hokmabadi et al., 2024). In today's sustainability-driven era, businesses are expected not only to survive crises but also to align with broader societal objectives, ensuring long-term viability alongside short-term recovery (Koporcic et al., 2025).

Although previous research has explored crisis management and resilience separately, there remains a lack of integrated studies examining how crisis marketing strategies influence entrepreneurial outcomes across both traditional and deep-tech sectors (Doern et al., 2019; Zahra, 2021). This study addresses this gap by evaluating how such strategies contribute to resilience and sustained performance in dynamic environments. It specifically investigates how entrepreneurs in both micro-enterprises and deep-tech startups utilize crisis marketing to maintain operations during and after crises (Sharma et al., 2024), while also assessing whether these strategies result in incremental rather than exponential growth, thereby supporting long-term sustainability (Sarkar & Osiyevskyy, 2017).

### **Research Objectives**

This study aims to analyze the extent to which entrepreneurs in micro-enterprises and deep-tech startups adopt crisis marketing strategies. It further seeks to examine the relationship between these strategies and business resilience. Additionally, the research evaluates how crisis marketing influences business outcomes, including gradual growth and profitability. Overall, the study contributes to a more profound understanding of sustainable entrepreneurial practices within VUCA contexts (Ratten, 2021; Zahra, 2021).

### **Scope of the Study**

The research focuses on entrepreneurs operating within highly uncertain and dynamic environments, particularly those involved in micro-enterprises and deep-tech startups across multiple sectors (Ribeiro-Soriano & Piñeiro-Chousa, 2021). It includes industries characterized by innovation, sustainability, and technology-driven models (Breier et al., 2021). The study considers globally relevant crisis scenarios such as economic downturns, pandemics, and technological disruptions (Hitt et al., 2021). Geographically, the research concentrates on entrepreneurial ecosystems in and around Hyderabad, Telangana, India. It examines crisis marketing practices, resilience capabilities, and performance outcomes of micro-enterprises using a scientific and empirical approach. Policymakers, practitioners, and academic researchers can benefit from the findings. The study broadly covers themes related to sustainability, crisis management, and marketing within disruptive global contexts.

### **Conceptual Framework**

The study is grounded in Dynamic Capabilities Theory (Battisti & Deakins, 2021), which suggests that in VUCA conditions, firms must go beyond static resources and instead develop the ability to integrate, reconfigure, and renew competencies to remain competitive. Within this framework, crisis marketing strategies—such as adaptive pricing, digital engagement, communication practices, and innovation—are

treated as the independent variable. These strategies are proposed to influence business resilience (mediating variable), which include indicators such as profitability and market retention. In turn, resilience impacts business performance (dependent variable), reflected in sustained operations and the ability to withstand crises (Doern et al., 2019; Pal et al., 2014). The framework assumes a causal pathway where crisis marketing enhances resilience, which subsequently improves performance outcomes (Koporcic et al., 2025). It also acknowledges that the effectiveness of these strategies may differ depending on sectoral characteristics and technological intensity (Teece, 2018).

## **Knowledge Gaps**

### **Conceptual Gap**

Despite extensive research on crisis management and resilience, these constructs are often studied independently rather than as interconnected elements (Doern et al., 2019). There is a lack of integrated frameworks that position crisis marketing as a simultaneous driver of both resilience and performance. Additionally, the connection between sustainability-focused strategies and crisis responsiveness remains insufficiently explored, particularly in relation to incremental growth (Teece, 2018). Much of the literature emphasizes reactive crisis management or short-term survival, with limited attention to the role of marketing capabilities, especially digital transformation, in strengthening resilience. Furthermore, studies rarely examine crisis marketing as a mechanism for gradual growth within a sustainability-oriented framework. The moderating role of sustainability in enhancing the effectiveness of crisis marketing strategies also remains underexplored.

### **Geographical Gap**

Empirical research on crisis management and entrepreneurial resilience in India is often generalized, with limited focus on regional variations. Within South India, most studies are concentrated in Tamil Nadu, leaving regions such as Telangana underrepresented. Although crises affect businesses nationwide, there is a shortage of systematic research examining how micro-enterprises in Telangana respond to such challenges. This study seeks to address this gap by providing context-specific insights relevant to the region.

### **Sectoral Gap**

Existing research tends to examine traditional small businesses and high-tech firms separately (Eggers, 2020; Morgan et al., 2020). Comparative analyses that include both conventional micro-enterprises and deep-tech startups within a unified framework are limited (Zahra, 2021). Deep-tech startups, characterized by high uncertainty and longer innovation cycles, may respond differently to crises compared to conventional businesses. However, these differences remain underexplored. This study addresses the gap by comparing both sectors and analyzing whether deep-tech startups employ distinct crisis marketing strategies to build resilience (Breier et al., 2022).

## **Research Methodology**

### **Quantitative Study**

The research adopts a quantitative approach to examine the relationships among crisis marketing strategies, business resilience, and performance in small enterprises (Clauss et al., 2021). This approach

enables systematic data collection and statistical testing of hypotheses. Primary data will be gathered through structured questionnaires administered to entrepreneurs. A cross-sectional survey design will be used, capturing data at a single point in time to reflect the current crisis-affected business environment. This design is suitable for analyzing the relationships among key variables.

### **Sample Size**

The study plans to include approximately 400 participants to ensure statistical validity. This estimate is based on the guideline of having at least 20 observations per variable, considering around 20 variables in the model. This sample size supports advanced techniques such as Structural Equation Modeling (SEM).

### **Sampling Technique**

A combination of sampling methods will be employed. Initially, snowball sampling will be used to identify participants through professional networks, which is particularly useful given the lack of comprehensive databases of small entrepreneurs. Respondents will be asked to refer others who meet the study criteria. Purposive sampling will then ensure that participants have relevant experience with crisis situations. Eligible respondents must be owner-managers or key decision-makers who have handled business crises within the past three to five years. Finally, stratified sampling will be applied to ensure representation from both conventional micro-enterprises and deep-tech startups. This approach facilitates comparative analysis across sectors.

### **Statistical Tools**

Descriptive analysis will be conducted using SPSS to summarize demographic and business-related data. Measures such as mean, median, mode, and standard deviation will provide an overview of the dataset. Comparative analyses, including t-tests and ANOVA, will be performed to identify differences between groups. Additionally, Structural Equation Modeling (SEM) using AMOS will be employed to test the conceptual framework and examine relationships among variables, including direct and indirect effects.

### **Ethical Considerations**

The study will adhere to established ethical guidelines. Participants will provide informed consent, ensuring voluntary participation and confidentiality. The purpose of the research will be clearly communicated, and responses will remain anonymous. Data will be used strictly for academic purposes.

### **Conclusion**

In a world characterized by ongoing disruptions and uncertainty, entrepreneurs must focus on building resilient and sustainable business models rather than merely surviving (Hitt et al., 2021). The ability of small enterprises to adapt and thrive during crises is essential for economic stability and the achievement of SDG 8. Crisis marketing strategies provide a critical means of navigating uncertainty, enabling firms to maintain operations and achieve steady growth (Eggers, 2020). This study contributes to existing literature by integrating crisis marketing, resilience, and performance into a single framework while addressing conceptual, geographical, and sectoral gaps (Doern et al., 2019). By examining both micro-enterprises and deep-tech startups, the research offers a comprehensive perspective on entrepreneurial adaptation in the sustainability era. The findings are expected to inform policy development and support

resilient entrepreneurial ecosystems (Zahra, 2021). Ultimately, the study demonstrates that with appropriate strategic approaches, small businesses can convert the challenges of a disruptive environment into opportunities for sustainable and incremental progress.

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