



Tourism resilience in the SADC region: A multi-crisis analysis and integrated crisis management model

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ABSTRACT

The tourism industry in the Southern African Development Community (SADC) region is highly vulnerable to multiple, overlapping crises, including environmental disasters, energy shortages, political instability, economic fluctuations, and global health pandemics. Despite the growing importance of resilience in tourism research, existing studies largely adopt single-crisis or destination-specific approaches, limiting their applicability to complex regional systems, which is particularly problematic given the interconnected nature of crises affecting the SADC region. This study examined tourism resilience in the Southern African Development Community (SADC) region, with a focus on the impacts of crises, the strategies adopted to enhance resilience, and the effectiveness of these adaptation measures. The study adopted a qualitative research design based on a systematic desk review of secondary data. Literature was sourced from peer-reviewed journals, books, and policy reports from institutions such as SADC, UNWTO, and the World Bank, retrieved through databases including Google Scholar, Scopus, and ScienceDirect. A thematic analysis approach was used to synthesize findings on tourism resilience and crisis management in the SADC region from studies published between 2000 and 2025. The study finds that tourism in the SADC region is highly vulnerable to multiple interrelated crises, including environmental, economic, political, energy, and pandemic shocks, which significantly disrupt sector performance, with uneven recovery across countries. Despite this, resilience is gradually emerging through digital transformation, infrastructure and technological adaptation, and market and product diversification, although these efforts remain constrained by structural inequalities and weak coordination. The study recommends the adoption of an integrated SADC Crisis Management and Resilience Model (S-CMRM) to strengthen multi-level governance, enhance adaptive capacity, and promote a more proactive and transformative approach to tourism resilience in the region.

Keywords: Crisis Management, Environmental Disasters, Energy Crisis, Economic Fluctuations, Political Instability, Pandemics, Resilience, SADC Region, Tourism Industry

I. INTRODUCTION

The tourism industry is a cornerstone of the economy for many countries in the SADC region, contributing significantly to Gross Domestic Product (GDP), employment, and foreign exchange earnings. For instance, in 2019, tourism contributed approximately 7.2% to South Africa's GDP and 9.2% to Tanzania's, employing millions directly and indirectly across the region (World Bank, 2023). The sector directly sustained around 2.5 million jobs in the region in 2017; in total more than 6.3 million jobs depended on tourism (SADC, 2019). However, the industry is highly vulnerable to various crises, including environmental disasters, energy shortages, political instability, economic fluctuations, and pandemics (United Nations World Tourism Organization [UNWTO], 2021). These crises have historically posed significant challenges to the resilience and sustainability of tourism in the SADC region making it underperform compared to other regions with Africa and internationally. As the frequency and intensity of such crises increase, it becomes imperative to assess and strengthen the resilience strategies and crisis management measures employed by the tourism sector. This paper provides a desk review of existing resilience strategies and adaptation measures in the SADC region, focusing on their effectiveness in mitigating the impacts of these diverse crises on the tourism industry affecting trade sustainability.

The Southern African Development Community (SADC) is a regional economic bloc comprising sixteen member states: Angola, Botswana, Comoros, Democratic Republic of Congo, Eswatini, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Tanzania, Zambia, and Zimbabwe. Originally established in 1980 as the Southern African Development Coordination Conference (SADCC), the organization was later transformed into SADC in 1992 with the objective of promoting regional integration, economic cooperation, and



sustainable development across Southern Africa (Koboyatau, 2023). Over time, SADC has expanded its mandate to include cooperation in areas such as trade, infrastructure development, environmental management, and tourism promotion.

Tourism has emerged as a critical sector within the SADC regional economy. The region is endowed with significant tourism assets, including diverse wildlife ecosystems, national parks, coastal destinations, and rich cultural heritage. Globally recognized attractions such as Victoria Falls, the Okavango Delta, and the Serengeti ecosystem contribute significantly to the region's international tourism appeal. These natural and cultural resources position the region as an important destination within the global tourism market (Rogerson & Rogerson, 2021).

Economically, tourism contributes substantially to national and regional development. Prior to the COVID-19 pandemic, tourism generated significant foreign exchange earnings and employment opportunities across many SADC member states. In 2019, tourism contributed approximately 7.2% of South Africa's Gross Domestic Product (GDP) and 9.2% of Tanzania's GDP, while supporting millions of direct and indirect jobs across the region (World Bank, 2024). At the regional level, the tourism sector supported approximately 2.5 million direct jobs and more than 6 million total jobs when indirect employment effects are considered (Koboyatau, 2023). In addition to its macroeconomic contributions, tourism plays an important role in supporting community livelihoods, promoting cultural preservation, and financing biodiversity conservation in many rural areas of the region.

Despite its economic significance, the tourism sector in the SADC region remains highly vulnerable to a range of external shocks. Environmental hazards such as floods, droughts, and cyclones frequently disrupt tourism infrastructure and natural attractions. Energy shortages, often linked to reliance on hydropower and limited energy infrastructure, also affect tourism operations in several countries in the region. Furthermore, political instability, economic volatility, and global health crises have historically influenced tourism demand and destination competitiveness. The COVID-19 pandemic underscored the extent of these vulnerabilities. International travel restrictions, border closures, and declining tourist confidence led to a dramatic decline in tourist arrivals across the SADC region, resulting in significant revenue losses and widespread disruption of tourism-related businesses (UNWTO, 2009). These disruptions exposed structural weaknesses in tourism systems and highlighted the need for more robust crisis management and resilience strategies.

Given the importance of tourism for economic development and the sector's susceptibility to multiple crises, strengthening tourism resilience has become an increasingly important policy priority for governments and regional institutions within the SADC framework. Understanding how tourism systems respond to different types of crises and identifying strategies that enhance resilience are therefore critical for ensuring the long-term sustainability and stability of the tourism industry in the region. Notwithstanding, this study makes three key contributions to the tourism resilience and crisis management literature. First, it adopts a multi-crisis analytical perspective, examining the combined effects of environmental, economic, political, and health-related shocks on tourism systems an approach that moves beyond the dominant single-crisis focus in existing studies. Second, the study provides a regional governance perspective, highlighting the role of cross-border coordination and institutional fragmentation in shaping tourism resilience within the SADC context. Third, the study develops the SADC Crisis Management and Resilience Model (S-CMRM), an integrated framework that links institutional, destination-level, and enterprise-level resilience processes. This model offers a context-specific contribution tailored to developing tourism regions characterized by structural constraints and overlapping crises.

1.1 Statement of the Problem

The tourism industry in the Southern African Development Community (SADC) region should function as a resilient, adaptive, and sustainable system capable of withstanding and recovering from diverse external shocks. Effective tourism systems are expected to integrate proactive crisis management strategies, including disaster risk reduction, market diversification, robust infrastructure, digital transformation, and strong institutional coordination (Ritchie and Jiang, 2019). Furthermore, regional cooperation frameworks should enable harmonized policies and coordinated crisis responses across member states, enhancing the sector's long-term competitiveness and stability (World Bank, 2023).

However, the sector remains highly vulnerable to multiple and overlapping crises, including environmental disasters, energy shortages, political instability, economic fluctuations, and pandemics (UNWTO, 2021). Crisis management approaches are largely fragmented, reactive, and unevenly implemented, with significant disparities in infrastructure, digital capacity, and institutional effectiveness across countries. Additionally, small and medium-sized enterprises (SMEs) face structural constraints such as limited access to finance, inadequate technological capacity, and weak risk management systems, further reducing their ability to adapt to crises (Rogerson and Rogerson, 2021).

The gap between the ideal state and current reality results in prolonged recovery periods, significant revenue losses, and increased business vulnerability within the tourism sector. SMEs and informal sector participants experience disproportionate economic impacts, exacerbating inequality and limiting inclusive growth. Moreover, fragmented crisis

management systems and weak regional coordination reduce the sector’s capacity to respond effectively to multi-dimensional and simultaneous crises, thereby undermining destination competitiveness and investor confidence (Mahachi et al., 2015).

This study aims to examine crisis management strategies and resilience mechanisms within the SADC tourism sector using a multi-crisis analytical perspective. It seeks to identify existing strategies, evaluate their effectiveness, highlight structural gaps, and propose an integrated SADC Crisis Management and Resilience Model (S-CMRM) to strengthen tourism resilience and support sustainable sector development.

1.2 Research Objectives

- i. To analyze the specific impacts of various crises environmental disasters, energy shortages, political instability, economic fluctuations, and pandemics on the tourism sector in the SADC region.
- ii. To review and identify the resilience strategies currently employed by SADC countries to mitigate the effects of these crises on the tourism industry.
- iii. To evaluate the effectiveness of adaptation measures implemented by the tourism sector in response to past crises, with a focus on how these measures have helped sustain the industry.
- iv. To identify gaps and challenges in the current crisis management approaches within the tourism industry, highlighting areas where improvements are needed.
- v. To propose recommendations for enhancing the resilience and adaptability of the SADC tourism industry, ensuring its sustainability in the face of future crises.

II. LITERATURE REVIEW

2.1 Theoretical Perspective

Tourism resilience has become an increasingly important concept in the academic literature as the industry faces growing exposure to environmental, economic, political, and health-related crises. Resilience generally refers to the capacity of tourism systems including destinations, businesses, and communities to anticipate, absorb, recover from, and adapt to external shocks while maintaining their core functions (Hall & Lew, 2009). Closely related to this concept is crisis management, which involves the planning, coordination, and implementation of strategies, designed to minimize the negative impacts of crises on tourism systems (Ritchie & Jiang, 2019). While earlier approaches tended to emphasize short-term recovery, more recent perspectives highlight the need to integrate immediate crisis response with longer-term resilience-building strategies. Tourism crises themselves take multiple forms as illustrated in the Figure 1.

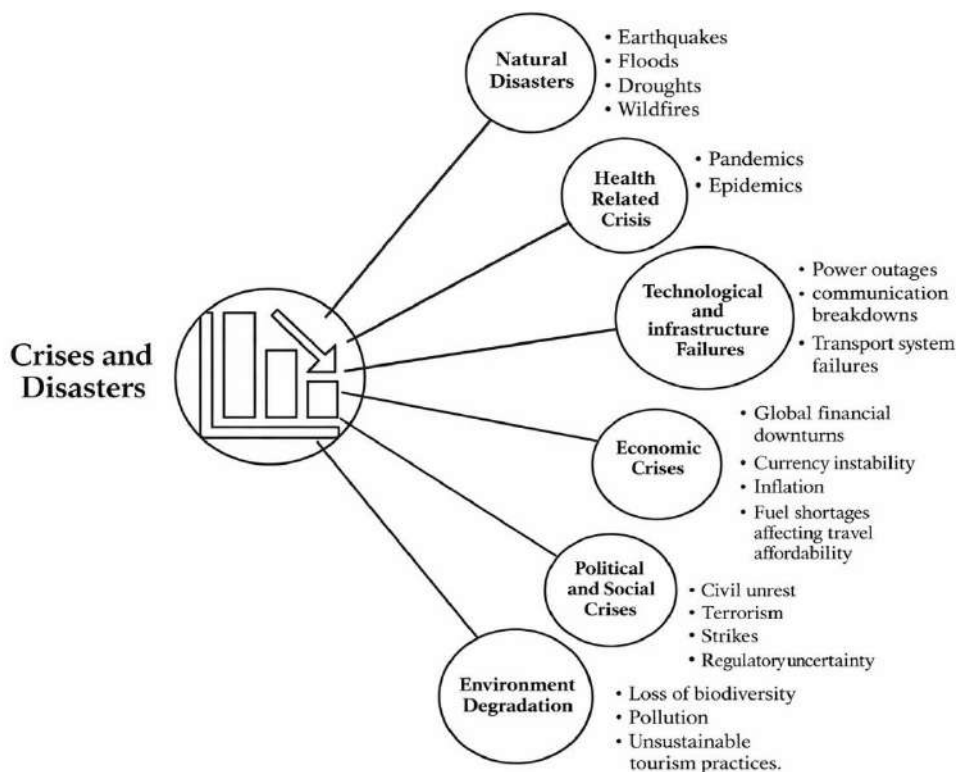


Figure 1
Typology of Crises and Disasters



These typologies provide a useful framework for understanding the diverse risks facing tourism systems. However, in practice, such crises often occur simultaneously or in sequence, particularly in developing regions, creating complex and compounded challenges. This highlights the limitations of single-crisis approaches and reinforces the need for a broader, multi-dimensional understanding of tourism risk and resilience.

This study is primarily anchored in resilience theory (Weick et al., 1989) and crisis management theory (Pedersen et al., 2020), supported by a systems perspective. From this viewpoint, tourism is understood as an interconnected system in which environmental, economic, political, and infrastructural factors interact to influence outcomes (Ritchie & Jiang, 2019). As a result, disruptions in one area, such as energy supply or political stability, can have cascading effects across the entire tourism value chain. In this context, resilience is shaped not only by external shocks but also by internal adaptive capacities, including governance structures, technological capabilities, and resource availability.

The integration of these theoretical perspectives is particularly relevant in regions such as the Southern African Development Community (SADC), where tourism systems operate under conditions of multiple and overlapping risks. The region's exposure to environmental hazards, economic volatility, energy constraints, political uncertainty, and global health crises underscores the importance of adaptive capacity, diversification, and institutional coordination (Makochehanwa, 2013; Kapika & Eberhard, 2013; Mebratu et al., 2019). Accordingly, this study adopts a multi-crisis and systems-based approach to examine how resilience strategies operate within a complex and resource-constrained regional tourism context (Mahachi et al., 2015).

2.2 Thematic Review of Literature on Tourism Crisis and Resilience

2.2.1 Impacts of Crises on Tourism in the SADC Region

Tourism scholarship widely acknowledges that the tourism sector is highly sensitive to a wide range of shocks, including environmental disasters, energy shortages, political instability, economic fluctuations, and pandemics. However, much of this literature is grounded in linear impact logic, where crises are treated as discrete shocks with predictable recovery trajectories (Hall & Lew, 2009). This assumption is increasingly contested.

Emerging evidence suggests that tourism systems, particularly in developing regions, operate under non-linear and cumulative risk conditions, where multiple crises interact and amplify each other rather than occur in isolation (Meyer et al., 2026). In the SADC region, for instance, energy shortages (Valickova & Elms, 2021), climate variability (Semosa, 2025), and macroeconomic instability (Mlambo, 2025) frequently overlap, producing compounded vulnerabilities that cannot be explained through single-crisis models.

This reveals a critical limitation in dominant tourism crisis literature: its tendency to isolate crisis types rather than theorize their interaction. As a result, current models understate systemic fragility and overestimate recovery capacity in contexts where structural constraints persist (He & Cha, 2018). This study therefore positions crisis impacts not as discrete events but as interacting stressors within a fragile tourism system.

2.2.2 Resilience Strategies in Tourism Systems

Existing literature identifies several resilience strategies adopted by tourism destinations and enterprises to mitigate the effects of crises. These include disaster risk reduction planning, market diversification, infrastructure investment, digital transformation, and institutional coordination. For instance, diversification of tourism products and source markets is widely recognized as a strategy for reducing dependency on single markets and enhancing stability during shocks (Zengeni et al., 2012).

Similarly, digital technologies such as online booking systems, digital marketing, and contactless payment platforms have become critical tools for maintaining tourism operations during disruptions. Infrastructure resilience, particularly in transport and energy systems, is also emphasized as a foundational requirement for sustaining tourism activity during crises (Becken & McLennan, 2017).

However, literature also shows that the effectiveness of these strategies varies significantly depending on contextual conditions. In many SADC countries, limited financial capacity, unequal digital access, and weak institutional coordination constrain the full implementation of resilience strategies (Makoni & Rogerson, 2023).

2.2.3 Effectiveness of Adaptation Measures

While numerous adaptation strategies have been documented in the literature, their effectiveness in sustaining tourism systems varies across contexts. Evidence suggests that destinations with strong governance structures, diversified tourism portfolios, and robust infrastructure are more successful in recovering from crises (Reddy et al., 2020). In contrast, destinations with weak institutional capacity and limited resource bases often experience prolonged recovery periods.



For example, digital transformation has improved crisis responsiveness in some tourism markets by enabling remote service delivery and marketing continuity (Ghosh, 2026). However, in regions with digital infrastructure deficits, its impact remains limited. Similarly, diversification strategies enhance resilience where markets are well integrated, but their effectiveness is constrained in fragmented and resource-limited tourism systems such as those in parts of the SADC region (Becken & McLennan, 2017).

Consequently, the literature indicates that adaptation measures are most effective when they are integrated, well-funded, and supported by strong institutional frameworks rather than implemented as isolated interventions.

2.2.4 Gaps and Challenges in Tourism Crisis Management

Despite the growing body of literature on tourism resilience, several gaps remain. First, most studies have been conducted in advanced tourism economies with strong institutional and infrastructural systems, limiting their applicability to developing regions such as SADC (Ritchie & Jiang, 2019). Second, much of the literature focuses on single-crisis events, which does not adequately reflect the multi-crisis reality faced by many tourism destinations in Africa (Hall & Lew, 2009).

Third, existing research largely emphasizes destination-level resilience, with limited attention to enterprise-level vulnerabilities, particularly among small and medium-sized tourism enterprises (SMEs) (Rogerson & Rogerson, 2021). Fourth, digital transformation studies often assume uniform technological access, overlooking the digital divide that characterizes many developing tourism economies (Mahachi et al., 2015). Finally, there is limited integration of different resilience dimensions into a single analytical framework that captures the interaction between crises, vulnerabilities, and adaptive capacities.

2.2.5 Recommendations for Enhancing the Resilience and Adaptability

The synthesis of literature indicates that tourism resilience is shaped by the interaction between external crisis drivers and internal adaptive capacities. However, current resilience strategies remain fragmented and largely reactive, particularly in developing regions. The literature suggests that more effective resilience building requires integrated approaches that combine crisis preparedness, infrastructure development, digital inclusion, and institutional coordination (Muyambo et al., 2025).

For regions such as SADC, the literature points to the importance of strengthening regional cooperation mechanisms to manage cross-border tourism flows and shared vulnerabilities (Brunet-Jailly, 2022). In addition, improving SME support systems, enhancing digital infrastructure, and promoting diversified tourism products are consistently identified as key directions for strengthening resilience (Mahachi et al., 2015).

While these recommendations are well documented in the literature, there remains limited empirical validation of how they operate collectively within multi-crisis regional tourism systems. This study therefore contributes by synthesizing these strands into a unified analytical perspective focused on the SADC tourism context.

2.3 Conceptual Framework

Based on the literature review and research objectives, this study conceptualizes tourism resilience in the SADC region as an interactional system between external crisis drivers, internal adaptive capacities, and sectoral vulnerabilities, which collectively shape tourism resilience outcomes as indicated in

Figure.

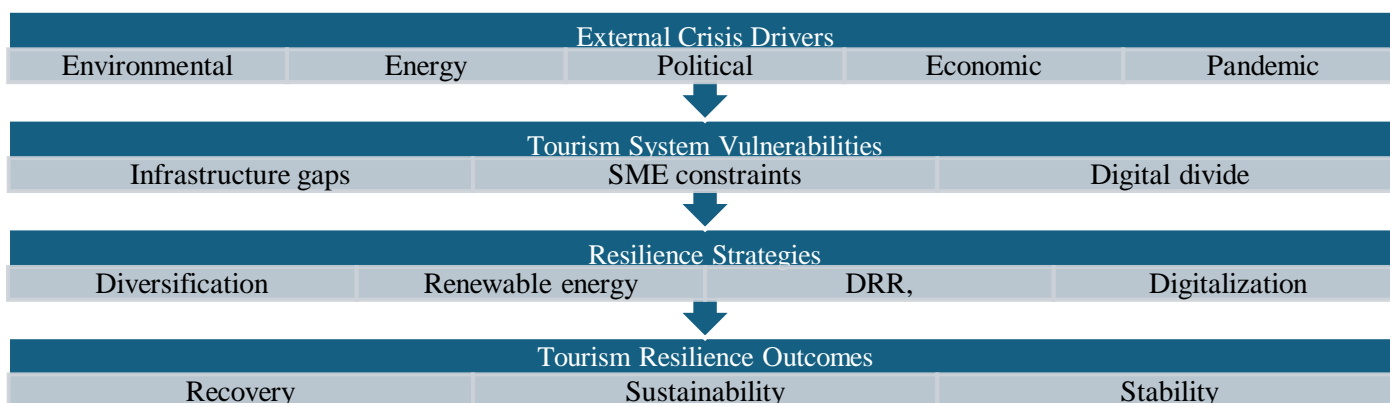


Figure 2
Conceptual Framework



III. METHODOLOGY

3.1 Research Design and Approach

This study adopted a qualitative research design using a systematic desk review approach to synthesize existing literature on tourism resilience and crisis management in the SADC region. The design is appropriate for identifying patterns and conceptual relationships within published studies rather than collecting primary data.

The study was guided by an interpretivist approach, focusing on interpreting meanings, themes, and relationships within existing academic and policy literature.

3.2 Data Sources and Search Strategy

Data were drawn from secondary sources, including peer-reviewed journal articles, books, policy documents, and institutional reports from SADC, UNWTO, and the World Bank.

A structured search was conducted using Google Scholar, ScienceDirect, and Scopus, supported by institutional repositories. Key search terms included “tourism resilience,” “crisis management,” “tourism disasters,” “SADC tourism,” “pandemics and tourism,” “tourism recovery strategies.”

Studies published between 2000 and 2025 included to capture both foundational theories and recent developments. Inclusion criteria considered studies that: (i) address tourism resilience or crisis management, (ii) focus on developing regions or comparable contexts, and (iii) provide empirical or theoretical insights relevant to the SADC region. Exclusion criteria considered studies not related to tourism resilience, lacking relevance to crisis management, or focused on unrelated sectors without transferable insights. The final review yielded approximately 80–120 sources.

3.3 Data Analysis and Reliability

Data were analyzed using thematic analysis, guided by objectives of the study. A comparative analysis of selected SADC countries was also conducted to identify regional similarities and differences in tourism resilience.

Reliability and validity were ensured through systematic source selection, triangulation of academic and policy literature, and consistent coding procedures. Finally, ethical standards were maintained through proper citation of all secondary sources.

IV. FINDINGS & DISCUSSION

4.1 Findings

The findings of this study are presented and discussed in line with the research objectives.

4.1.1 Impacts of Crises on Tourism in the SADC Region

A central theme emerging from the analysis is the critical role of infrastructure and technological capacity in shaping the resilience of tourism systems across the SADC region. Across environmental disasters, energy shortages, and pandemic-related disruptions, destinations with stronger infrastructure systems demonstrate greater capacity to absorb shocks and maintain tourism operations. This includes physical infrastructure such as transportation networks, energy systems, and tourism facilities, as well as digital infrastructure that supports communication, service delivery, and crisis coordination. Previous studies emphasize that resilient tourism systems depend on reliable infrastructure and adaptive technological capacity, particularly in destinations that are highly exposed to external shocks (Hall & Lew, 2009; Becken & McLennan, 2017).

Energy reliability emerged as a particularly important factor influencing tourism resilience. Tourism operations depend heavily on stable electricity supply for accommodation services, transport systems, and hospitality operations. In contexts where national power systems are unreliable, tourism enterprises have increasingly invested in alternative energy technologies such as solar power and hybrid energy systems to maintain operational continuity (Becken & McLennan, 2017). However, the adoption of renewable energy technologies remains uneven across the region due to financial constraints and limited access to capital among smaller tourism enterprises. This uneven adoption reinforces structural disparities within tourism systems, where large establishments are better positioned to implement technological resilience strategies.

Technological innovation also played a significant role in mitigating the impacts of the COVID-19 pandemic. Digital booking platforms, contactless service technologies, and online marketing systems enabled tourism businesses to maintain customer engagement during travel restrictions and recovery phases (Mahachi et al., 2015). These developments illustrate the growing importance of digital transformation as a resilience mechanism within tourism systems. However, the findings also reveal persistent disparities in digital infrastructure across rural and urban



destinations in the region, which may limit the ability of some tourism operators to fully participate in emerging digital tourism markets.

4.1.2 Resilience Strategies in the SADC Tourism Sector

One of the key resilience strategies identified is infrastructure and technological adaptation. In response to environmental disasters, energy shortages, and pandemics, tourism enterprises have increasingly invested in alternative energy technologies such as solar power and hybrid energy systems to maintain operational continuity (Becken & McLennan, 2017). However, the adoption of renewable energy technologies remains uneven across the region due to financial constraints and limited access to capital among smaller tourism enterprises.

Technological innovation also played a significant role in strengthening resilience, particularly during the COVID-19 pandemic. Digital booking platforms, contactless service technologies, and online marketing systems enabled tourism businesses to maintain customer engagement during travel restrictions and recovery phases (Mahachi et al., 2015). These developments illustrate the growing importance of digital transformation as a resilience mechanism within tourism systems.

Market and product diversification also emerged as a major resilience strategy. Tourism destinations that depend heavily on a narrow set of international source markets or a limited tourism product base are significantly more vulnerable to disruptions caused by political instability, economic downturns, or global travel restrictions (Ritchie & Jiang, 2019).

Political instability and security concerns frequently result in rapid declines in tourist arrivals due to heightened risk perceptions among international travelers (Mahachi et al., 2015). In response, many tourism destinations have adopted diversification strategies aimed at expanding visitor markets and reducing dependence on specific geographic regions. These strategies include targeting regional tourism markets, promoting intra-African travel, and strengthening domestic tourism initiatives. Market diversification helps reduce demand volatility by spreading tourism risk across multiple source markets (Rogerson & Rogerson, 2021).

Product diversification also emerged as a key resilience strategy across the SADC tourism sector. Destinations traditionally dependent on wildlife or nature-based tourism are increasingly expanding their offerings to include cultural tourism, heritage tourism, adventure tourism, and community-based tourism initiatives (Novelli et al., 2012). Such diversification reduces dependence on a single tourism product that may be vulnerable to environmental or economic shocks while also creating broader economic opportunities for local communities.

Economic crises further highlight the importance of diversification strategies. During periods of global economic downturn, international tourism demand often declines significantly. Destinations with stronger domestic tourism markets are better positioned to sustain tourism activity during such downturns (Gössling et al., 2021). However, the analysis indicates that domestic tourism development remains uneven across SADC countries, limiting its effectiveness as a resilience strategy in some destinations.

4.1.3 Effectiveness of Adaptation Measures

Technological innovation has demonstrated clear effectiveness in mitigating crisis impacts, particularly during the COVID-19 pandemic. Digital platforms, contactless systems, and online marketing enabled continuity of business operations despite travel restrictions, highlighting the adaptive value of digital transformation (Gössling et al., 2021).

Similarly, energy adaptation strategies such as the adoption of solar and hybrid systems have improved operational continuity in contexts of unreliable electricity supply (Becken & McLennan, 2017). However, their effectiveness remains uneven due to financial limitations among small and medium enterprises.

Diversification strategies have also shown positive outcomes in stabilizing tourism demand. Destinations with stronger domestic tourism markets were better positioned to sustain tourism activity during global downturns. However, the analysis indicates that domestic tourism development remains uneven across SADC countries, limiting its overall effectiveness as a regional resilience strategy. The findings show that larger tourism enterprises are more likely to invest in renewable energy systems, digital marketing platforms, and advanced crisis management tools. In contrast, SMEs often lack the financial resources and technical expertise required to implement such resilience strategies (Gössling et al., 2021). Without targeted policy support, including financial assistance programs, digital capacity-building initiatives, and improved access to credit SMEs will continue to face disproportionate risks during crises.

4.1.4 Gaps and Challenges in Crisis Management

Despite the adoption of various resilience strategies, several gaps persist in the SADC tourism sector. A major challenge is the structural vulnerability of SMEs, which continue to face limited access to credit, weak financial buffers, and restricted capacity to invest in resilience-enhancing technologies (Rogerson & Rogerson, 2021).

Another key challenge is the uneven distribution of digital and physical infrastructure across rural and urban destinations. This disparity limits the ability of some tourism operators to fully engage in digital tourism markets and



resilience systems (Gössling et al., 2021). The analysis also highlights uneven development of domestic tourism across the region, which constrains its potential as a stabilizing force during global crises.

In addition, institutional coordination remains weak, with fragmented governance structures reducing the efficiency of crisis response and recovery efforts. Nevertheless, the analysis suggests that tourism governance frameworks within the SADC region remain unevenly developed. Strengthening collaboration between national governments, regional institutions, and private sector stakeholders is therefore essential for creating a more integrated and resilient tourism system. Enhanced policy coordination and knowledge sharing can support more proactive crisis management approaches and reduce the vulnerability of tourism destinations to future disruptions (UNWTO, 2009).

4.3 Discussion

4.3.1 Impacts of Crises on the Tourism Sector in the SADC Region

The findings demonstrate that environmental disasters, energy crises, political instability, economic fluctuations, and pandemics represent major structural risks to tourism development in the SADC region. Environmental disasters represent one of the most persistent and structurally embedded risks facing tourism in the SADC region. Although several countries have implemented disaster risk reduction (DRR) strategies, including early warning systems and climate-resilient infrastructure, the effectiveness of these measures varies significantly across member states. This variation reflects broader institutional disparities within the region, where countries with stronger governance structures and higher levels of tourism investment such as South Africa and Botswana are better positioned to implement proactive resilience strategies (Becken & McLennan, 2017).

Energy shortages represent another critical challenge that affects tourism operations throughout the SADC region. The findings show that tourism businesses increasingly rely on alternative energy sources particularly solar energy to mitigate the operational disruptions caused by unreliable electricity supply. While this shift demonstrates a degree of adaptive innovation within the sector, it also highlights the vulnerability of tourism systems that depend heavily on external infrastructure such as national energy grids. This pattern reflects broader insights from tourism resilience literature, which argues that sectoral resilience is closely linked to the stability of supporting systems such as energy, transportation, and telecommunications (Ritchie & Jiang, 2019). In this context, tourism resilience cannot be analyzed in isolation from broader infrastructure governance. Although renewable energy adoption provides a promising pathway toward greater energy independence, the transition remains uneven due to high capital costs and limited access to financing for smaller tourism operators. Without targeted financial support mechanisms, this disparity risks reinforcing structural inequalities within the tourism sector, where larger operators become increasingly resilient while smaller enterprises remain highly vulnerable to systemic shocks.

Political instability continues to represent one of the most significant threats to tourism development in parts of the SADC region. The findings show that destinations experiencing political unrest frequently adopt strategies such as market diversification, security enhancements, and crisis communication campaigns in an effort to maintain tourist confidence. While these measures can mitigate short-term demand shocks, their effectiveness is often constrained by broader perceptions of political risk in international tourism markets. Tourism demand is particularly sensitive to risk perception because travel decisions are strongly influenced by safety considerations. As a result, even isolated incidents of political instability can generate disproportionate declines in visitor arrivals. This dynamic is consistent with the tourism risk management literature, which highlights the importance of destination image in shaping tourist behavior (Ritchie & Jiang, 2019). Sustainable tourism recovery in politically volatile contexts therefore requires broader institutional reforms that enhance governance stability and strengthen investor confidence.

Similarly, economic volatility including inflation, currency fluctuations, and global recessions reduces tourism demand and constrains operational capacity, particularly among SMEs (Rogerson & Rogerson, 2021). The findings reveal that tourism enterprises have adopted several adaptive strategies to manage economic uncertainty, including dynamic pricing, cost management practices, and market diversification. These strategies demonstrate a degree of operational flexibility within the tourism sector, enabling businesses to adjust to changing economic conditions. However, the findings also highlight structural limitations in the region's economic resilience. Many tourism operators face restricted access to financial resources during economic downturns, limiting their ability to invest in innovation or maintain operations during prolonged crises. This issue is particularly pronounced among SMEs, which often lack the financial reserves needed to withstand extended periods of reduced demand. This suggests that economic resilience in tourism requires a balanced market structure that combines domestic tourism development with diversified international visitor markets.

The COVID-19 pandemic had the most severe impact, disrupting global mobility and exposing structural weaknesses in tourism systems across the region, with uneven recovery patterns observed among SADC countries (Gössling et al., 2021). The findings demonstrate that the pandemic triggered rapid institutional and technological adaptations, including the implementation of health protocols, the acceleration of digital transformation, and the introduction of economic recovery programs. These responses highlight the capacity of tourism systems to adapt under



extreme pressure. However, the pandemic also exposed significant structural vulnerabilities within the region's tourism sector. Recovery trajectories have been uneven across SADC countries, largely reflecting disparities in public health capacity, vaccine availability, and fiscal resources available for economic stimulus. Countries with stronger institutional capacity such as Mauritius and Seychelles were able to implement more comprehensive recovery strategies, enabling faster tourism recovery compared to less resourced destinations.

4.3.2 Resilience Strategies Employed in the SADC Tourism Sector

The findings reveal that tourism stakeholders across the SADC region have adopted several resilience strategies in response to crises. Infrastructure and technological adaptation emerged as a central resilience strategy within the SADC tourism sector. Tourism enterprises have increasingly invested in alternative energy solutions such as solar panels and hybrid energy systems to address the persistent challenge of unreliable electricity supply. This shift is particularly important given that energy insecurity directly affects accommodation services, transport systems, and hospitality operations. However, the adoption of such technologies is highly uneven across the region. Large firms and well-capitalized establishments are more able to absorb the initial investment costs compared to SMEs. This creates a structural imbalance in resilience capacity within the sector. In addition, limited access to financing and technical expertise continues to slow down widespread adoption. Despite these challenges, the transition toward renewable energy reflects an important long-term adaptation pathway for tourism sustainability in the region (Becken & McLennan, 2017).

Technological innovation played a particularly critical role in strengthening resilience during the COVID-19 pandemic. Tourism enterprises rapidly adopted digital booking platforms, contactless payment systems, and online marketing tools to maintain visibility and operational continuity during periods of travel restriction. These innovations enabled firms to sustain customer engagement even when physical mobility was severely constrained. In addition, digital platforms facilitated the shift toward virtual experiences and remote service delivery, which partially compensated for reduced physical tourism flows. However, the effectiveness of digital transformation varies significantly across SADC countries due to disparities in internet penetration, digital literacy, and infrastructure quality. Rural and less-developed destinations often lag behind in adopting these innovations, limiting their competitiveness. Nevertheless, digitalization has permanently reshaped tourism business models and is increasingly viewed as a core resilience mechanism rather than a temporary crisis response (Gössling et al., 2021).

Market diversification has emerged as another key resilience strategy adopted by tourism stakeholders in the SADC region. Many destinations have expanded their focus from heavy reliance on international tourism to strengthening regional and domestic tourism markets. This shift reduces vulnerability to global shocks such as pandemics, geopolitical tensions, and economic downturns that disrupt international travel flows. Domestic tourism has proven particularly important in stabilizing demand during periods of international travel restrictions. However, the strength of domestic tourism markets varies significantly across countries due to differences in income levels, tourism culture, and affordability. In addition, regional tourism within SADC offers opportunities for cross-border travel integration, although it remains underdeveloped due to visa restrictions and weak coordination frameworks. Despite these constraints, market diversification enhances resilience by broadening demand sources and reducing overdependence on external markets (Rogerson & Rogerson, 2021).

Product diversification has also played a significant role in strengthening tourism resilience across the SADC region. Tourism enterprises have increasingly expanded their offerings beyond traditional wildlife and leisure tourism to include cultural, heritage, adventure, and community-based tourism products. This diversification enables destinations to appeal to a broader range of tourist preferences and market segments. It also reduces dependency on a single tourism product, thereby spreading risk across multiple revenue streams. In many cases, community-based tourism initiatives have enhanced local participation and strengthened the socio-economic linkages between tourism and host communities. However, the success of product diversification depends on effective destination branding, infrastructure support, and capacity development among local operators. Furthermore, limited investment in product development and marketing continues to constrain full realization of diversification benefits. Nonetheless, product innovation remains a key pathway for building adaptive and competitive tourism systems in the region (Novelli et al., 2012).

4.3.3 Effectiveness of Tourism Adaptation Measures

The findings indicate that while multiple adaptation strategies have been implemented, their effectiveness varies significantly across the SADC region. Digital transformation has proven highly effective in maintaining tourism engagement during crises, particularly during the COVID-19 pandemic, by enabling remote service delivery and online marketing continuity (Gössling et al., 2021). Energy adaptation strategies, such as renewable energy adoption, have improved operational resilience but remain limited by high initial costs and uneven adoption rates.

Market and product diversification strategies have contributed to stabilizing tourism demand, particularly in countries with strong domestic tourism bases. However, these strategies cannot fully compensate for losses from

international tourism in highly dependent destinations. Overall, the effectiveness of resilience measures is strongly shaped by institutional capacity, infrastructure development, and financial resources, highlighting persistent inequalities within the region (Ritchie & Jiang, 2019).

4.3.4 Emerging Gaps and Implications for Tourism Resilience

Despite progress in adopting resilience strategies, several structural gaps persist in the SADC tourism sector. Small and medium-sized enterprises remain highly vulnerable due to limited access to finance, technology, and insurance mechanisms. Infrastructure disparities, particularly in digital and energy systems, further widen resilience gaps between urban and rural destinations (Gössling et al., 2021).

Institutional fragmentation also limits coordinated crisis response, with weak integration between tourism authorities, disaster management systems, and regional governance structures. Additionally, underdeveloped domestic tourism markets reduce the sector’s ability to absorb shocks from international disruptions. These gaps suggest the need for more coordinated regional frameworks, targeted SME support, and sustained investment in digital and sustainable infrastructure (Becken & McLennan, 2017).

Strengthening tourism resilience in the SADC region therefore requires a shift from reactive crisis management toward proactive, integrated resilience planning. This includes embedding risk management into tourism development policies, enhancing regional cooperation, and promoting inclusive growth strategies that ensure equitable participation across all tourism actors (UNWTO, 2021).

All in all, resilient tourism as a driver of competitiveness in the context of crises and disasters provides a strong policy argument for governments, private sector actors, and development partners to mainstream resilience into tourism planning and investment decisions. As illustrated in Figure 3, the framework emphasizes the need to integrate disaster and climate risk considerations into tourism systems as a core component of competitiveness and sustainability (World Bank, 2024).

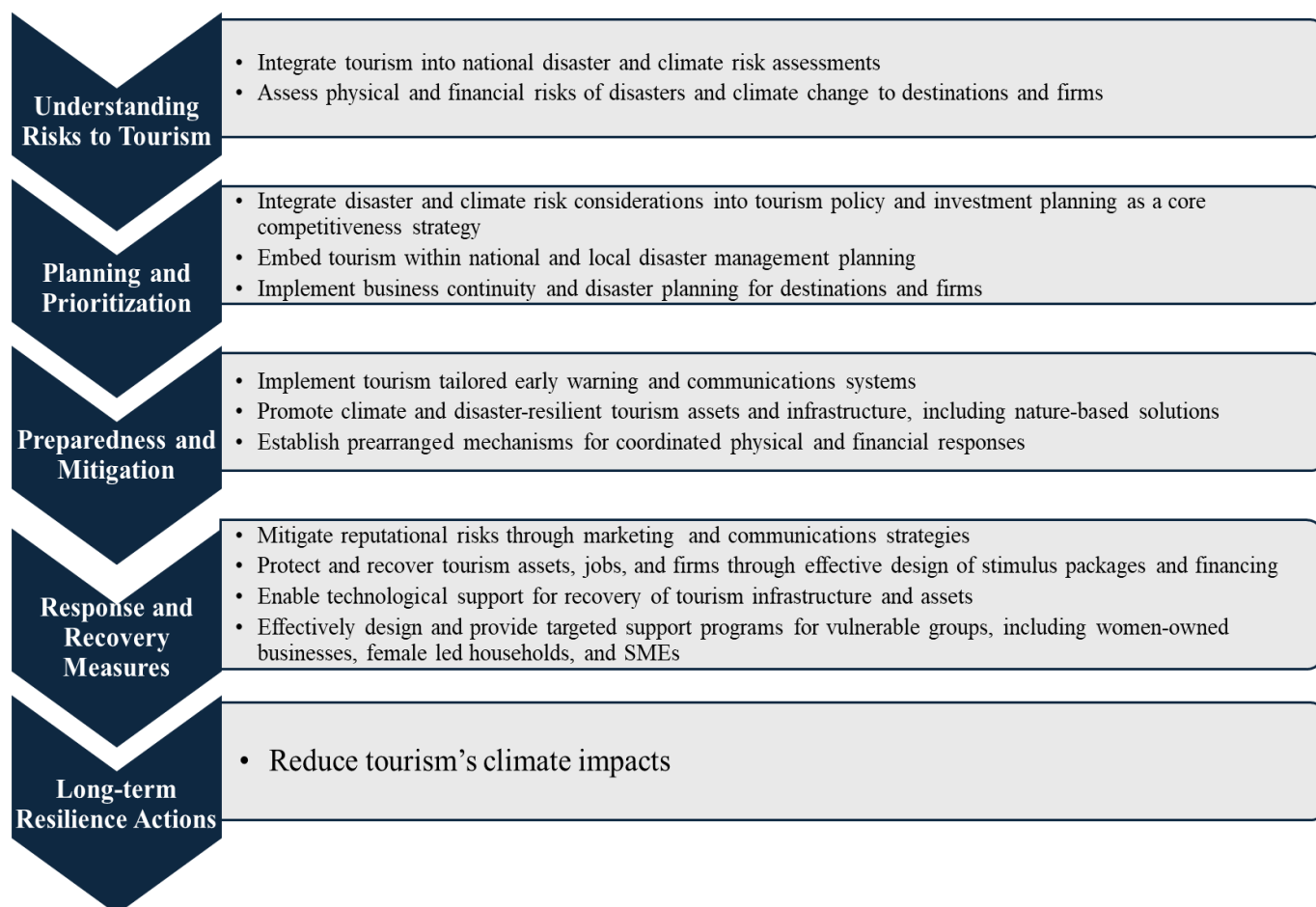


Figure 3
Resilience Tourism Framework



Its objectives are to: build knowledge of how and why the tourism sector is vulnerable to disaster and climate risks; raise awareness of disaster and climate impacts on tourism competitiveness; examine barriers to proactive mitigation and risk-informed decision-making; and present examples of approaches in different countries (World Bank, 2024).

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

This study examined tourism resilience in the Southern African Development Community (SADC) region with a focus on the impacts of crises, the strategies adopted to enhance resilience, and the effectiveness of these adaptation measures. The findings demonstrate that the tourism sector in the SADC region is highly vulnerable to a range of interrelated crises, including environmental disasters, energy insecurity, political instability, economic fluctuations, and pandemics such as COVID-19. These shocks significantly disrupt tourism performance, with recovery trajectories varying across countries due to differences in institutional capacity, infrastructure development, and governance effectiveness.

Despite these vulnerabilities, the sector is progressively strengthening its resilience through infrastructure and technological adaptation, digital transformation, market diversification, and product innovation. However, the effectiveness of these strategies remains uneven, constrained by structural inequalities, limited SME capacity, and weak regional coordination. The study therefore underscores the need for integrated and proactive resilience planning, enhanced regional cooperation, and sustained investment in digital, energy, and institutional capacities to support long-term tourism resilience in the SADC region.

5.2 Recommendations

Based on the findings and discussion, the following recommendations are proposed to enhance the resilience and crisis management capabilities of the tourism industry in the SADC region. The study proposes the adoption of a SADC Crisis Management and Resilience Model (S-CMRM) as an integrated framework for strengthening tourism resilience in the region as shown in Figure 1.

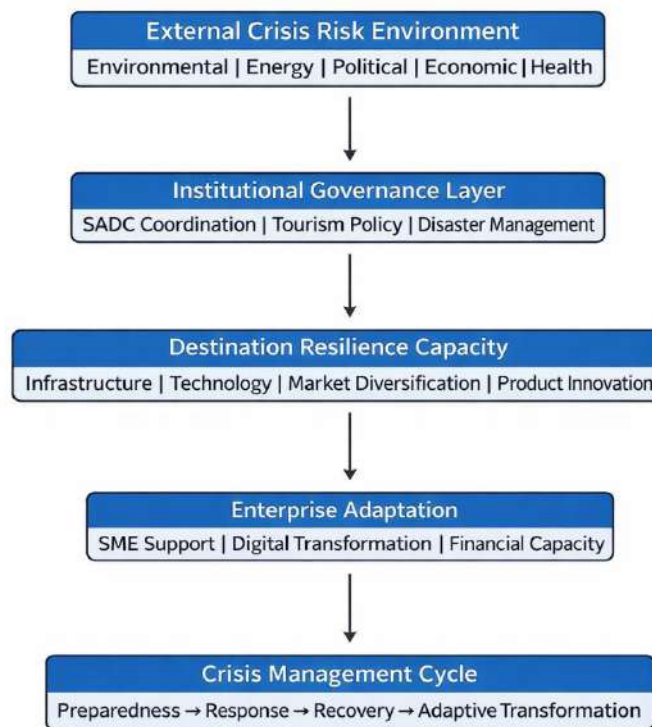


Figure 1
SADC Crisis Management and Resilience Model (S-CMRM)

The model shown in Figure 1 conceptualizes resilience as a multi-level system comprising institutional governance, destination operational capacity, and enterprise-level adaptability, operating within a cyclical process of preparedness, response, recovery, and adaptive transformation. This framework emphasizes resilience not only as recovery capacity but also as the ability of tourism systems to learn, innovate, and transform in response to crises.

Additionally, the study recommends that SADC member states should strengthen regional coordination by establishing a dedicated tourism resilience mechanism to harmonize crisis preparedness, response, and recovery strategies. Targeted support should be provided to small and medium-sized enterprises through improved access to finance, insurance products, and capacity-building initiatives. Governments should also prioritize investments in disaster risk reduction infrastructure, renewable energy solutions, and digital tourism systems to enhance operational stability and competitiveness.

Furthermore, strengthening domestic and regional tourism markets is essential to reduce dependency on international arrivals, while improved crisis communication systems are needed to safeguard destination image during periods of uncertainty. Finally, enhanced regional research collaboration and knowledge-sharing platforms should be developed to support evidence-based tourism resilience planning and policy development across the SADC region.

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