

Article

To Close or Sustain? Resilience Strategies of Community-Based Ecotourism Entrepreneurs in Kelantan

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Abstract: Community-Based Ecotourism (CBE) plays an important role in strengthening local economies by generating income, promoting conservation, and preserving cultural identity. However, many CBE efforts in developing regions such as Kelantan, Malaysia, continue to face economic uncertainty, limited resources, and external disruptions that challenge their long-term sustainability. The study aimed to examine the resilience strategies adopted by CBE entrepreneurs in sustaining their livelihoods and enterprises amidst these challenges. Using a qualitative single case study approach, data were collected through semi-structured interviews, field observations, and document analysis to explore adaptation practices among CBE entrepreneurs. These findings reveal that these entrepreneurs are using digitalization to expand market access, adopt cost control measures to maintain financial stability, and implement environmentally sustainable practices to protect local ecosystems. Their resilience is further supported by strong community cooperation and external assistance from government agencies and non-governmental organizations that provide institutional resources and support. This study contributes to the understanding of resilience in community-based entrepreneurship by highlighting the interaction between social, economic, and institutional factors. These findings provide practical insights to policymakers and development practitioners in designing targeted interventions and support mechanisms that enhance the adaptive capacity and sustainability of rural tourism enterprises in line with the Sustainable Development Goals (SDGs).

Keywords: Entrepreneur; resilience; strategy; community-based ecotourism; Kelantan.

Introduction

Resilience in entrepreneurship is critical concept for CBE ventures that operate in fragile environments dependent on ecological balance and social cohesion. In Kelantan an East Coast state rich in natural and cultural heritage CBE offers crucial economic opportunities to rural communities, attracting around 1.5 million tourists annually, including over 800,000 through the Thailand border (Bernama, 2024; Che Haron et al., 2024). Despite persistent challenges, tourism remains a key catalyst for rural development, particularly in economically disadvantaged regions. It creates employment and income through small-scale enterprises such as homestays, handicrafts, and tour services; promotes infrastructure development in transport, sanitation, and communication; and enhances access to education, healthcare, and skills training (Sa'at et al., 2022). Thus,

strengthening the resilience of CBE entrepreneurs is essential to sustain these socioeconomic benefits and align tourism growth with the Sustainable Development Goals (SDGs), ensuring long-term community and environmental sustainability.

However, these opportunities are often accompanied by a variety of risks, including tourism infrastructure challenges, promotional weaknesses, lack of public awareness of collaboration between stakeholders, environmental degradation, economic volatility, and global crises such as pandemics (Segeda et al, 2025). As a result, Kelantan is facing tourism infrastructure constraints, financial limitation, poor marketing, social problem and a decline in natural resources. Kelantan is also faced with the issue of incompatibility of planning between agencies, as well as the lack of active Informant of local communities in the development of regional tourism (Rizal et al. 2024). This non-holistic approach undermines the state's true potential, especially in the context of the East Coast Economic Region (ECER), which should be a key driver for the development of heritage-based tourism and ecotourism in Kelantan (Ibrahim & Kanyo, 2023).

Entrepreneurial resilience is particularly vital in CBE, where ventures rely on both ecological sustainability and strong social cohesion. By adopting resilience strategies, entrepreneurs can adapt to shifting circumstances, overcome challenges effectively, and sustain their longevity ventures. In the context of Kelantan, a state rich in natural beauty and cultural heritage, CBE provides significant economic opportunities for local communities. However, these opportunities are often accompanied by various risks, including environmental degradation, economic fluctuations, and global crises such as pandemics. The tourism industry remains highly vulnerable, particularly in states like Kelantan where many communities depend on it for their livelihoods (Kamsi et al, 2025). For instance, during the pandemic, global tourism revenue plummeted by 74% with ecotourism hotspot experiencing sharp declines in visitor numbers. In Kelantan, CBE operators faced severe challenges, including loss of income, limited access to resources, and disruptions in supply chains. The pandemic exposed the fragility of these businesses, underscoring the need for robust resilience strategies to safeguard their sustainability.

Despite the recognized importance of resilience in tourism, there is limited research specifically focused on the strategies employed by CBE entrepreneurs in Kelantan. Ahmad et al (2024) often emphasize resilience to this state. Addressing this gap is crucial for developing tailored interventions that can support these entrepreneurs in navigating future crises and sustaining their businesses. Addressing this research gap is significant not only for the survival of individual ecotourism ventures but also for the broader community and state economy. CBE is a vital source income and cultural preservation in Kelantan. By understanding and enhancing the resilience of these businesses, stakeholders can contribute to the long-term sustainability of both the local environment and the livelihoods that depend on it. Furthermore, resilient ecotourism practices can serve as models for other regions facing similar challenges, amplifying the impact of this research.

Therefore, this study aims to identify the resilience strategies employed by CBE entrepreneurs in Kelantan during global crises. Through a qualitative case study approach, the research will explore how these entrepreneurs have adapted to challenges, to afloat during crises like COVID-19. The findings will provide insights into effective resilience strategies that can inform policy and practice, ensuring the continued success and sustainability of CBE in Kelantan and beyond.

Literature Review

1. Community-Based Ecotourism

CBE refers to tourism initiatives that are owned and operated by local communities, focusing on environmental sustainability, cultural preservation, and economic empowerment (Phou et al, 2025). Unlike conventional tourism, Phou et al. (2025) stated that the CBE prioritizes local Informant in decision-making processes, ensuring that the benefits of tourism are equitably distributed among community members. CBE plays a significant role in rural and regional development by generating income, creating employment, and promoting local entrepreneurship (Kumar, 2023). Socially, it fosters community cohesion and helps preserve cultural traditions. Environmentally, it provides incentives for conservation and encourages sustainable land

use practices (Ige et al, 2024). In Malaysia, and Kelantan in particular, CBE initiatives are increasingly being recognized as a tool for poverty alleviation and heritage preservation (Aziz et al., 2025).

Despite these benefits, CBE entrepreneurs encounter a variety of challenges. These include limited access to funding, inadequate infrastructure, lack of marketing expertise, and vulnerability to environmental disasters and market fluctuations (Kunjuraman, 2022). In regions like Kelantan, where natural disasters such as floods are frequent, these challenges are further intensified, highlighting the need for effective resilience strategies (Sungip et al., 2018).

2. Resilience Theory and Community Participation

Resilience, in the context of tourism and entrepreneurship, refers to the capacity to adapt, survive, and recover from shocks such as environmental change, economic crises, or pandemics (Jiang et al., 2019; Seow et al., 2024). For CBE initiatives, resilience is multi-dimensional which encompassing ecological, economic, and social aspects (Lew, 2013; Mohamad & Hamzah, 2015). Entrepreneurs in this sector must navigate complex and rapidly changing environments, making resilience a key factor in their long-term sustainability (Seow et al., 2024).

Theoretically, seven key principles are associated with community resilience: maintaining diversity and redundancy, managing connectivity, managing slow variables and feedbacks, fostering complex adaptive systems thinking, encouraging learning, broadening participation, and promoting polycentric governance. Resilience theory provides an appropriate foundation to guide this study, particularly through the socio-ecological perspective proposed by Holling (2001) and further developed by Walker and Salt (2006). Within this framework, system dynamics are shaped by the interaction between fast and slow variables. Fast variables refer to sudden, short-term disturbances such as natural disasters, economic shocks, or abrupt policy changes, while slow variables represent gradual, long-term processes such as ecosystem degradation, social transformation, or institutional evolution. In this study, both fast and slow factors were operationalized to understand community resilience among CBE entrepreneurs. The fast factors include digitalization and cost-saving strategies, reflecting immediate adaptive responses during crises. Meanwhile, the slow factors encompass sustainability practices, internal community support, and external institutional support, representing long-term structural and relational mechanisms that sustain resilience in community-based ecotourism ventures.

Resilience strategies in CBE have been extensively studied to understand how entrepreneurs can sustain their businesses in the face of various challenges. What constitutes resilience in this context is often linked to the ability of these entrepreneurs to adapt, survive, and thrive despite environmental, economic, and social pressures. Scholars have identified several key strategies, including diversification of income streams, adoption of digital tools, and community engagement. These strategies are particularly crucial in states where tourism is a major economic driver, and the risks associated with environmental degradation and global crises are pronounced.

The when of resilience strategy adoption varies, often triggered by external shocks or internal challenges. For example, during the COVID-19 pandemic, many CBE entrepreneurs worldwide, including those in Kelantan, were forced to quickly adapt to the sudden halt in tourist arrivals. Research by scholars such as Chu et al. (2024) shows that crises like these accelerate the adoption of resilience strategies, pushing entrepreneurs to innovate in areas such as online marketing and virtual tours to maintain engagement with potential customers. The timing of strategy implementation can be crucial, with proactive measures often proving more effective than reactive ones.

Who is involved in the development and implementation of these resilience strategies typically includes not only the entrepreneurs themselves but also local communities, government agencies, and non-governmental organizations. Studies by authors like Tarino et al, (2024) emphasize the role of community involvement in ensuring the success of ecotourism ventures. In Kelantan, the strong communal ties and reliance on local resources mean that community-based approaches are vital. Entrepreneurs often work closely with local leaders, environmentalists, and government bodies to craft strategies that are culturally appropriate and sustainable.

Understanding why resilience strategies are necessary in CBE is critical for ensuring the long-term viability of these ventures. The literature highlights that these businesses operate in environments that are highly susceptible to change, whether due to climate impacts, economic fluctuations, or socio-political dynamics. Studies by Hariram et al, (2023) and others argue that without resilient strategies, these entrepreneurs face the risk of failure, leading to economic losses for communities and potential degradation of the natural and cultural resources they aim to protect Sekgobela and Mgoduka, (2025). In Kelantan, where ecotourism is a key economic sector, the need for resilience is underscored by the region's dependence on the preservation of its natural heritage.

Finally, the how of implementing resilience strategies involves a combination of traditional knowledge and modern innovations. Research shows that community-based ecotourism entrepreneurs in Kelantan and similar regions often blend sustainable practices inherited from their ancestors with contemporary techniques such as digital marketing and financial management. For example, studies by researchers like Rahmawati et al. (2023) highlight how entrepreneurs in ecotourism incorporate sustainable farming, waste management, and renewable energy into their operations. In Kelantan, the integration of such practices with digitalization efforts such as using social media to attract tourists illustrates a holistic approach to resilience, ensuring that both economic and environmental sustainability are achieved (Adzis, Mohamad, and Rajaratnam, 2025).

While global literature on CBE and resilience is growing, there remains a lack of localized studies focused on the Malaysian context, particularly in the east coast state of Kelantan. Most existing studies overlook the nuanced strategies employed by entrepreneurs at the grassroots level, especially how traditional practices are blended with digital innovations in responding to systemic shocks. This study adopts the Community Resilience Framework (Jones et al, 2024) and the Sustainable Livelihoods Approach (Kunjuraman, 2024) to analyse the adaptive strategies of CBE entrepreneurs. These frameworks emphasize the role of social capital, institutional support, and environmental stewardship in fostering resilience at the community level.

Methodology

1. Research Design

The research methodology employed in this study was guided by a qualitative approach, aiming to identify the resilience strategy of CBE entrepreneurs through in-depth interviews with five (5) CBE owners. This study focuses on a single case study the CBE ventures in Kelantan, Malaysia. The case encompasses five established CBE sites located across different districts which are *Kubang Kerian, Kota Bharu, Pangkalan Datu, Bachok, Ayer Lanas, Jeli, Dabong, Jeli* and *Pasir Puteh*. These ventures represent diverse forms of nature-based and community-driven tourism, including river, forest, and ecotourism activities. Qualitative methods were chosen to allow for a rich exploration of the subjective experiences, perceptions and strategies related to resilience among entrepreneurs, enabling a nuanced understand of the phenomenon in its natural context.

2. Sampling Strategy

A purposive sampling strategy was used to select informants for the study. Business owner were selected based on their diverse industry backgrounds, venture stages, year operation, and geographical locations to ensure a broad representation of experiences and perspectives. While the sample size ($n=5$) is small, it was deemed informationally sufficient for this exploratory case, given the depth of interviews. Recruitment efforts involved reaching out to entrepreneurs through professional networks, entrepreneurial organizations, and online platforms dedicated to CBE.

3. Data Collection

Semi-structured interviews were conducted with each informant to gather rich, detailed insights into their experiences of resilience in entrepreneurship. The interviews were conducted face-to-face at their business place with the owner also depending on the preferences and availability of the informants. The interview guide was designed to elicit responses related to the conceptualization of resilience, key challenges faced, strategies

employed, and perceptions of resilience in the entrepreneurial journey during the global crises. Each interview began with informed consent obtained from the informant, outlining the purpose of the study, confidentiality measures, and their rights as informants. The interviews were audio-recorded with the permission of the informants to ensure accurate data capture. Throughout the interview process, the interviewer maintained a neutral stance, encouraging informants to share their experiences openly and reflect on their journey as entrepreneurs.

Table 1. Informants demographic profile

Informants	Age	Gender	Year of Experience in CBE	Type of CBE Venture	Main attractions
Informant 1	70	Female	16 Years	Lodging	River
Informant 2	71	Male	24 Years	Resort	River
Informant 3	57	Male	8 Years	Resort	River
Informant 4	31	Female	7 Years	Resort	River
Informant 5	43	Male	8 Years	Resort/Chalet	River

Source: Fieldwork (2024)

4. Data Analysis

Thematic analysis was employed to analyse the interview data and identify recurring patterns, themes, and insights related to resilience in entrepreneurship. The audio-recorded each session lasted between 45 to 90 minutes and was audio-recorded with permission. The interviews were transcribed verbatim, ensuring fidelity to informants' responses and preserving contextual nuances. The transcripts were then systematically analysed using an iterative process of coding, categorization, and theme development. In Appendix A, initially, open coding was used to generate a comprehensive list of codes representing key concepts, experiences, and phenomena discussed by the informants. These codes were then organized into broader categories and themes based on their relevance to the research questions and theoretical frameworks. Through constant comparison and reflexivity, emergent themes were refined, revised, and interconnected to create a coherent narrative of resilience in entrepreneurship. Member checking was also conducted, whereby informants were provided with a summary of the findings and given the opportunity to validate or clarify their responses, ensuring the accuracy and credibility of the interpretations.

5. Ethical Considerations

Ethical guidelines outlined by Universiti Malaysia Kelantan (UMK) were followed throughout the research process to ensure the protection of informants' rights and well-being. Informed consent was obtained from all informants prior to their involvement in the study, and measures were taken to maintain confidentiality and anonymity of their responses. Informants were assured of their right to withdraw from the study at any time without repercussions, and their data were securely stored and accessed only by the research team.

6. Limitations

This study has provided valuable insights into the role of resilience in entrepreneurial success through in-depth interviews with CBE entrepreneurs. The findings revealed resilience to be a multifaceted phenomenon, encompassing cognitive, emotional, and behavioural dimensions, and playing a pivotal role in navigating challenges, capitalizing on opportunities, and achieving sustainable growth in ventures. The study contributes to theoretical understanding by enriching existing frameworks of CBE resilience in entrepreneurship. Practically, the findings have implications for entrepreneurs, policymakers, and ecosystem stakeholders

seeking to foster resilience among CBE entrepreneurs. Actionable insights include the development of resilience-building programs, CBE entrepreneur eco-system, mentorship initiatives, and support networks tailored to the unique needs of CBE entrepreneurs. The study has limitations that warrant consideration, including sample size constraints, reliance on self-reported data, and a focus on specific contexts and industries. Future research could address these limitations by employing larger samples, diverse methodologies, and cross-cultural perspectives to validate and extend the findings of this study.

The Findings

The analysis of interview data yielded rich insights into the role of resilience in entrepreneurial success, elucidating the experiences, perceptions, and strategies of start-up founders. The findings revealed several key themes related to the conceptualization of resilience, challenges faced, strategies employed, and perceptions of resilience in the entrepreneurial journey.

1. Digitalization (Fast/Short-Term Strategy)

Digitalization in this study reflects how CBE entrepreneurs in Kelantan are adopting digital tools and technologies to enhance their operations, marketing, and communication. During and after the pandemic, CBE entrepreneur adopted technology to enhance business operations by utilizing digital tools for communication and management, aiming to maintain business and attract tourists despite physical restrictions, primarily through social media, online platforms, and various digital communication tools, while implementing solutions like solar lights, aquaponics for operational efficiency, leveraging digital communication tools to promote, encouraging staff to create and post content, learning and gradually implementing digital tools with the help of external experts for production and content management, and engaging with potential visitors through social media channels. As quotes from informants:

Table 2. Digitalization

Informants	Quotes
Informant 1	<i>Just like what we do here, even though we focus on nature and water quality, we still use technology and innovation... we also have many solar lights. (Female, 70 years old)</i>
Informant 2	<i>We use WhatsApp... we also put the info on Facebook of Rakyat Jeli. (Male, 71 years old)</i>
Informant 3	<i>TikTok is really effective... If we market on TikTok, it's truly powerful. (Male, 57 years old)</i>
Informant 4	<i>My level of capability to handle that technology is quite slow...we need help from people to assist us for production purposes. (Female, 31 years old)</i>
Informant 5	<i>Mostly, we use social media like Facebook, and then we blast messages through WhatsApp. (Female, 43 years old)</i>

Digitalization emerged as a key strategy (fast variable) within the resilience representing the entrepreneurs' immediate, short-term adaptive response to crisis conditions adopted by CBE entrepreneurs in Kelantan to enhance communication, marketing, and operational efficiency. Many informants described actively using social media platforms (*Facebook, TikTok, WhatsApp*) allowed them to promote their ecotourism products and engage with potential visitors. For instance, entrepreneur emphasized the effectiveness of social medias as a powerful marketing tool, while others mentioned using social medias to disseminate information quickly and broadly. Beyond marketing, digital communication tools were also used for internal coordination and outreach. In addition to digital platforms, informants reported integrating sustainable technologies such as solar-powered lighting into their operations, highlighting a broader use of innovation in ecotourism practices. However, not all entrepreneurs were equally equipped to utilize these technologies. One of the entrepreneurs admitted having limited technological skills and expressed the need

for external assistance, particularly in content production and digital management. This indicates that while digitalization offers significant benefits, there is a concurrent need for capacity-building and training to ensure inclusive access and effectiveness across all community members.

Therefore, digitalization functions as a fast (short-term) adaptation strategy, enabling entrepreneurs to quickly reconnect with markets and maintain visibility during disruptions, while laying the groundwork for future technological resilience.

2. Cost Saving (Fast/Short-Term Strategy)

This theme captures how CBE entrepreneurs actively manage limited financial resources to maintain operations, particularly during crisis. Cost saving measures represent fast (short-term) strategies, as they are implemented immediately to stabilize the business during financial strain. CBE entrepreneurs emphasized strategies to reduce operational costs to sustain the business during times of reduced income and avoid unnecessary financial strain by implementing these strategies in their daily operations, using local resources, and minimizing external dependencies, while utilizing local materials, practicing self-sustainability, avoiding large loans or external debts, implementing a rotating work schedule for staff to reduce wage expenses, closing the resort to avoid high operational costs, maintaining the property with minimal staff, reducing staff members to essential personnel, paying only partial salaries, implementing a rotating work schedule to reduce payroll expenses, and relying on internal funds. According to the quotes from the interview:

Table 3. Cost saving

Informants	Quotes
Informant 1	<i>We started with my pension money at first... then, after that, we expanded a bit with the money that people contributed, so we did a little bit at a time. (Female, 70 years old)</i>
Informant 2	<i>We implemented a rotating system to save costs... we only pay daily wages based on the days worked. (Male, 71 years old)</i>
Informant 3	<i>During COVID-19... there were many procedures... I just shut it down completely. (Male, 57 years old)</i>
Informant 4	<i>We only pay half of the salary. (Female, 31 years old)</i>
Informant 5	<i>During COVID, we didn't feel it much because we took over during the development process...we saved money, we really saved. (Male, 43 years old)</i>

Therefore, cost saving measures are fast (short-term) strategies that enable CBE entrepreneurs to maintain immediate financial stability during crises. These actions allow them to sustain essential operations and minimize losses until normal business conditions resume.

3. Sustainability Practice (Slow/Long-Term Strategy)

CBE entrepreneurs, with the support of the local community, are dedicated to environmentally sustainable practices as a fundamental aspect of their business operations. Their goal is to preserve the natural environment, which is essential for ecotourism, and ensure long-term sustainability through the maintenance of natural habitats, waste management, and responsible resource usage. They implement practices such as rainwater harvesting, organic farming, using natural materials for construction, and promoting eco-friendly activities, selective clearing of land, maintaining natural water sources, using traditional materials like *nipah* for roofing, protecting local wildlife, maintaining cleanliness to prevent environmental degradation, using natural cooling methods, using solar lights and enforcing rules against activities that could harm the environment. According to the interview:

Table 4. Sustainability practice

Informants	Quotes
Informant 1	<i>We maintain the environment... and we need to take care of the habitat so that it can thrive... which means ensuring water quality. (Female, 70 years old)</i>
Informant 2	<i>We create a system like this to ensure soil structure and soil resistance... because I also seek for an opinion from geology, we don't disturb it, we preserve the original structure. (Male, 71 years old)</i>
Informant 3	<i>We maintain the nature... so that the river is clean. (Male, 57 years old)</i>
Informant 4	<i>We maintain cleanliness...this area is still well-preserved... we want to ensure all of this remains sustainable. (Male, 31 years old)</i>
Informant 5	<i>We only use solar for the lights... we put the signage then, if our staff see anyone fishing or doing things that harm the environment, we will make an announcement. (Male, 43 years old)</i>

A strong theme that emerged from the interviews was the CBE entrepreneurs' commitment to environmental sustainability as a foundational aspect of their operations. Informants emphasized their responsibility to preserve the natural environment, not only for ecological reasons but also to sustain the long-term appeal of their ecotourism ventures. Several informants described specific actions they take to maintain the integrity of local ecosystems. For instance, efforts to preserve water quality and maintain natural habitats were frequently mentioned while another highlighted the importance of soil conservation and others stressed maintaining river cleanliness and overall site hygiene to prevent environmental degradation.

Beyond conservation, some entrepreneurs incorporated renewable energy solutions, such as the use of solar lighting to minimize reliance on conventional energy sources. Furthermore, there was a clear presence of community-based environmental governance, where staff were empowered to monitor and act against harmful activities, such as fishing or littering, to protect the surrounding ecosystem. These proactive measures demonstrate that environmental stewardship is not treated as an afterthought, but as a deliberate and enforced practice embedded in their tourism model. Collectively, these efforts reflect a holistic and place-based sustainability ethic, aligning with the core principles of CBE.

Therefore, sustainability practices are slow (long-term) strategies because they require ongoing, cumulative efforts that preserve natural resources and ecosystem integrity over time. These actions ensure the continuous viability of ecotourism operations and the resilience of local communities in the long run.

4. Internal Support (Slow/Long-Term Strategy)

Support from within the community, including family and local workers, has been crucial throughout the resort's development and operations, especially during challenging periods like the pandemic. Local community members, skilled workers, and trainees have been involved in staffing, construction, and daily operations, helping to foster a close-knit, resilient team. By employing local residents, providing training, and rotating staff through different roles, the resort reduces operational costs, ensures community involvement, and strengthens local ties. This approach not only benefits the business but also ensures the resort's long-term sustainability by promoting community ownership and engagement.

Table 5. Internal support

Informants	Quotes
Informant 1	<i>The workers are local villagers... just neighbours from nearby. (Female, 70 years old)</i>
Informant 2	<i>Most of the construction here relies on the skills and expertise from the community... we have to take care of it, as it is for the community. (Male, 71 years old)</i>
Informant 3	<i>If possible, I want to give jobs to the young people from the village. (Male, 57 years old)</i>
Informant 4	<i>I'm struggling in my own way with the current management... even my wife has started to get involved. (Female, 31 years old)</i>

The findings highlight how internal support acts as the backbone of CBE resilience and sustainability. The entrepreneurs' reliance on family members and local workers ensure that the knowledge, skills, and values of CBE are continuously shared and strengthened across generations. Therefore, internal support represents a slow (long-term) strategy because it focusses on developing enduring relationships, community empowerment, and intergenerational collaboration which elements that sustain CBE operations well beyond short-term crises.

5. External Support (Fast/ Short-Term Strategy)

CBE has become an essential mechanism for advancing sustainable development, conserving natural resources and empowering local communities. As CBE entrepreneurs face the challenges posed by environmental changes, economic fluctuations, and social dynamics, external support plays a crucial role in enhancing their resilience. This support can come from various sources, including government support, non-governmental organizations (NGOs), private sector partnerships, and community networks, all of which can provide the necessary resources, knowledge, and connections to ensure the sustainability and success of CBE ventures.

Table 6. External support

Informants	Quotes
Informant 1	<i>PENJANA helped to keep us going even though we said we had no impact... the impact was also on the lack of tourists... we took the opportunity to help our business to sta. (Female, 70 years old)</i>
Informant 2	<i>I think I was given 600 ringgits under the state government... under eco-tourism... a small contribution to motivate us. (Male, 71 years old)</i>
Informant 3	<i>Yes, we took the government assistance that PRIHATIN, but it was not enough. (Male, 57 years old)</i>
Informant 4	<i>There are two, PRIHATIN and PENJANA aid for SMEs that had RM3000, 3 months...because I have SSM, I can apply for that while RISDA helps smallholder. (Informant 4, Female, 31 years old)</i>
Informant 5	<i>PRIHATIN aid has staff to take...Those affected by COVID can also take it through SOCSO. Insurance can also cover...Tourism like MOTAC also helps...The MOH also has help...Forestry is the agency involved here and we can say that almost every month the agency will come to our place...Cooperation from Selinsing assemblymen, and agriculture EXCO. (Male, 43 years old)</i>

Therefore, these financial aids were fast responses designed to provide immediate cushioning from the pandemic's economic shock, thus representing short-term resilience strategies. Beyond emergency aid, entrepreneurs also benefited from continuous institutional engagement and government strengthens lasting support systems and enhance the long-term sustainability of CBE operations.

Discussion

The discussion section provides a synthesis of the key findings from the study, contextualizes them within existing literature, and explores their implications for theory, practice, and future research in the field of entrepreneurship. The novelty of this study lies in revealing how internal and external supports interact dynamically to shape resilience, and in operationalizing the distinction between Fast (Short-Term) and Slow (Long-term) resilience strategies among CBE ventures.

Digitalization emerged as a significant Fast factor influencing community resilience among CBE entrepreneurs. Consistent with earlier studies (Igoumenakis & Giannoukou, 2025). Digitalization has been shown to expand market reach, improve competitiveness, and support business continuity through e-marketing and online visibility. In this study, however, a new dimension was observed that entrepreneurs creatively adapted their travel experiences into virtual formats or digital teasers to engage tourists in the post-pandemic period. While previous research primarily focused on digital marketing as a survival tool (Roy, 2025), this study highlights digital storytelling as a form of community empowerment, enabling local entrepreneurs to control their destination narratives rather than relying on intermediaries or travel agents. This finding contributes to the literature by positioning digitalization not merely as a marketing mechanism but also as a means of cultural representation, identity preservation, and ownership in post-crisis recovery.

The use of online booking platforms and review applications such as Google Maps, Agoda, and TripAdvisor also reinforces previous findings that digital tools enhance visibility, accessibility, and customer engagement (Buhalis, 2020). However, this study extends existing knowledge by demonstrating how small-scale, rural CBE entrepreneurs leverage these global digital platforms with minimal cost and technical skills, effectively democratizing market access for marginalized communities. Nevertheless, echoing the concerns of Cohen and Cohen (2019), the findings also reveal emerging risks of digital commodification, where cultural and natural heritage elements risk being superficially represented to appeal to online audiences. Hence, this study underscores the importance of establishing ethical digitalization guidelines and sustainable storytelling frameworks to preserve authenticity while maintaining market relevance.

In terms of sustainability practice, the findings align with previous studies that emphasize the centrality of environmental stewardship in CBE (Duong et al., 2024). However, this study identifies a more localized and innovative approach to sustainability through practices such as rainwater harvesting, organic farming, selective land clearing, the use of traditional materials like *nipah* for roofing, natural cooling systems, solar lighting, and waste reduction initiatives. Unlike earlier studies that tend to document generic environmental efforts, this research provides evidence of context-specific eco-innovation rooted in indigenous knowledge and traditional craftsmanship. These findings offer a more nuanced understanding of sustainability that intertwines ecological care with cultural continuity, thus deepening the conceptualization of resilience in community-based ecotourism context.

Furthermore, the findings highlight the vital role of internal support including collective leadership, mutual assistance, and cooperative spirit in maintaining entrepreneurial sustainability during crises. This resonates with the work of Duong et al., (2024), who emphasized that community cohesion strengthens adaptive capacity in CBE ventures. At the same time, external support from government agencies, NGOs, and tourism networks complements internal resilience by providing financial aid, training, and technical guidance (Coles et al., 2021). The novelty of this study lies in demonstrating how internal and external supports interact dynamically, rather than a one-way dependency on external assistance, local initiatives often trigger partnerships and co-create recovery strategies, showcasing an interactive resilience model that operates across both short-term and long-term strategy.

In summary, this study extends the discourse on CBE resilience by introducing an integrated framework that combines internal and external interactions with Fast-Slow operational dynamics. By

capturing how CBE entrepreneurs in rural ecotourism settings adapt both immediately and strategically, this research advances theoretical understanding of resilience as a temporal and relational process rather than a fixed outcome.

Conclusion

This study explored the resilience strategies employed by the CBE entrepreneurs in Kelantan during and after the global crisis. The findings reveal five interconnected strategies that collectively underpin entrepreneurial resilience: (1) Maintaining business operations, (2) Adapting target customers and business models, (3) Practicing sustainability, (4) Strengthening community networking, and (5) Leveraging external support. These strategies operate across two temporal dimensions of resilience: Fast (Short-Term) strategy such as digitalization, cost-saving, and external support while Slow (Long-Term) strategy such as sustainability practice and internal support. Together, it demonstrates how CBE entrepreneurs balance immediate survival with gradual regeneration, thereby operationalizing resilience as both a rapid and enduring process.

Theoretically, the study contributes to the literature by offering an integrated Fast-Slow resilience strategy for understanding how micro-scale CBE ventures respond to crises. Unlike previous studies that examined internal or external resilience factors in isolation, this research highlights their interactive and reciprocal nature, where local initiatives attract institutional partnerships and co-create adaptive responses. The findings advance theoretical understanding of resilience as a dynamic, multi-layered, and relational construct, emphasizing the temporal and systemic interplay between community agency and structural support.

From a practical standpoint, the study provides actionable insights for policymakers, development agencies, and tourism practitioners. Strengthening internal community leadership and external institutional collaboration can foster long-term sustainability in rural tourism. Moreover, promoting ethical digitalization, context-based sustainability practices, and capacity-building programs can enhance both immediate adaptability and enduring resilience among small-scale CBE operators. These insights can inform future strategies for post-crisis recovery and sustainable rural development in Malaysia and beyond.

Despite efforts to ensure rigor, several limitations should be acknowledged. The study's small sample size limits generalizability beyond the specific CBE context examined. The reliance on self-reported data may introduce biases such as social desirability or recall inaccuracy. Future research could employ mixed-method or longitudinal designs to capture resilience processes over time and across diverse CBE settings. Comparative studies across regions or countries would also enrich understanding of how cultural, institutional, and environmental factors shape the Fast and Slow dynamics of entrepreneurial resilience.

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Informed Consent Statement: Any research article describing a study involving humans should contain this statement: 'Informed consent was obtained from all subjects involved in the study. For studies not involving humans, please exclude this statement.'

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