

Digital Entrepreneurship and Entrepreneurial Resilience in Tourism SMEs Under Geopolitical Turbulence: A Systematic Literature Review with Contextual Insights from Jordan

Haneen Khaled Al-Fanatsah¹, Naseem Mohammad Twaissi², Khalid Mohammad Abdrabbo³

¹Department of Administrative and Financial Sciences, Ma'an University College, Al-Balqa Applied University Salt, Jordan, Email: Haneen_alfanatsah@bau.edu.jo, ORCID: <https://orcid.org/0009-0001-8335-030X>

²Department of Business Administration, College of Business Administration and Economics, Al Hussein Bin Talal University, Ma'an, Jordan, n.twaissi@ahu.edu.jo, <https://orcid.org/0000-0003-4821-895X>

³Department of Business Administration, College of Business Administration and Economic, Al-Hussein Bin Talal University, Ma'an, Jordan, Khalid.m.AbedRabbo@ahu.edu.jo, <https://orcid.org/0009-0003-8287-363X>

Abstract: The goal of this review was to examine whether digital entrepreneurship strengthens entrepreneurial resilience among small and medium-sized tourism enterprises operating under severe external disruption. Prior research reveals that digital tools improved market access, operational flexibility, and customer communication, while at the same time, there is evidence of fragmentation in entrepreneurship, tourism, innovation, and crisis-management scholarship. This is particularly apparent in settings that are geopolitically exposed, where there is prolonged uncertainty, reputational spillovers, and uneven demand, leading to shocks distinct from short-lived emergency events. This review addresses this gap by deploying a systematic literature review with a contextual documentary analysis, synthesizing 32 peer-reviewed studies alongside a targeted evaluation of selected official Jordanian sector reports. This review examined the conceptual, methodological, and geopolitical outlines of the discipline, and then examined the leading mechanism by which digital entrepreneurship bolsters resilience. The following were the main results of this review: Firstly, resilience was strengthened through strategic digital pivoting, platform-mediated continuity, direct market access, and more advanced capabilities, such as analytics, automation, and artificial intelligence. Secondly, this review revealed that digital mechanisms are dependent on complementary non-technological enablers, particularly digital literacy, psychological capital, trust in digital systems, and infrastructure readiness. Thirdly, previous literature was largely developed during the pandemic era, when insufficient attention was paid to chronic geopolitical disruption, long-term adaptation, and the Middle Eastern context. This review developed a Digital Shield framework that conceptualizes digital entrepreneurship as a dynamic capability that will enable tourism SMEs to sense disruption, seize digitally enabled opportunities, and reconfigure operations that are facing turbulence. This review contributes to entrepreneurship and SME scholarship by repositioning tourism within a sectoral context to address broader questions of entrepreneurial adaptation, capability renewal, and resilience in unstable environments. This review concludes with the implications for theory, policy, and future research direction. These implications are especially relevant for Jordan and comparable geopolitically exposed markets.

Keywords: digital entrepreneurship; entrepreneurial resilience; tourism SMEs; dynamic capabilities; geopolitical turbulence; Jordan; systematic literature review

1. Introduction

Resilience is treated by the Entrepreneurship scholarship as a proactive capability, rather than as passive endurance, in which firms absorb shocks, reconfigure resources, and continue creating value under uncertainty (Crick & Crick, 2016; Khurana et al., 2022; Malik & Terzidis, 2026). Resilience is viewed as a more dynamic configuration



of sensing, adaptation, and renewal that enables SMEs to respond to uncertainty while preserving strategic continuity rather than being static (Khurana et al., 2022; Malik & Terzidis, 2026).

Digital entrepreneurship has become a key component of adaptive capacity (Audretsch et al., 2024; Garcez et al., 2022). Most entrepreneurship literature has stopped treating digital technologies only as operational tools or communication channels but as entrepreneurial resources that increase market access, support experimentation, accelerate reconfiguration, and strengthen continuity under duress (Audretsch et al., 2024; Santos et al., 2023; Tantawy et al., 2026). Recent data has further shown that digitalization is more prevalent in entrepreneurial resilience through mechanisms such as entrepreneurial self-efficacy, passion, digitally enabled learning, and digital literacy, more so than technology adoption alone (Tantawy et al., 2026; Shatila et al., 2025).

Tourism SMEs afford an analytically expansive context for studying these dynamics because the tourism industry is highly sensitive to reputational shifts, geopolitical spillovers, mobility restrictions, and changes in consumer confidence (Sharma et al., 2021; Dias et al., 2022). Further, Tourism SMEs are often resource-limited, highly exposed to demand shocks, and dependent on fast strategic adjustment through communication, channel diversification, and service redesign (Hernández Sánchez & Oskam, 2025; Ali et al., 2025). For the above reasons, tourism SMEs can uncover, with specific clarity, how entrepreneurial resilience is enacted under pressure rather than described after the fact (Dias et al., 2022; Hernández Sánchez & Oskam, 2025).

Concurrently, the evidence base remains uneven in three aspects. Firstly, the COVID-19 period dominates most of the literature (Sharma et al., 2021; Sobaih et al., 2021; Elkhwesky et al., 2024). While COVID-19 era literature can be valuable, it does not fully crystallize the cumulative effects of prolonged geopolitical disruptions, reputational spillovers, and exposure to regional conflict (Dana et al., 2022; Varotsis, 2022). Secondly, despite the fact that digitalization is extensively discussed, literature on entrepreneurship still lacks precise explanations of how digital capabilities develop into resilient entrepreneurial results across different contexts (Malik & Terzidis, 2026; Tantawy et al., 2026). Third, conflict-exposed and Non-western settings remain underrepresented relative to their strategic relevance (Shatila et al., 2025).

The Jordanian tourism industry demonstrates why the above is relevant. Official tourism documents reveal that the Jordanian tourism sector is affected by regional instability, even when those issues are not directly related to Jordan (Ministry of Tourism and Antiquities, 2024a, 2024b, 2024c, 2025a, 2025b). Jordan has recently focused on digital transformation, entrepreneurship, and digital inclusion. At the same time, recent policy documents emphasized as national priorities the following: digital transformation, entrepreneurship, digital inclusion, and innovation capacity, which makes the current review of digitally enabled resilience in SMEs particularly relevant (ECO Consult, 2022; Ministry of Digital Economy and Entrepreneurship, 2026).

In the above context, this review will examine how digital entrepreneurship contributes to entrepreneurial resilience in tourism SMEs under severe duress and how entrepreneurship scholarship affects other sectors. To address these objectives, this study deploys a systematic literature review with a contextual documentary analysis, integrating global academic insights with localized evidence from official Jordanian sector reports. This review will therefore address three main questions: The first question is what conceptual, empirical, and geographical patterns characterize previous literature; The second question is which digital entrepreneurship strategies and complementary conditions are associated with resilience-related outcomes; and finally, what research gaps in the current literature remain, particularly regarding long-term resilience and conflict-affected contexts. The current review will contribute in four distinct ways. First, this review will integrate disjointed current literature on the subject and transform it into a lucid account that is entrepreneurship-focused. Second, it will identify the major digital and non-digital conditions that will empower resilience. Third, in the course of this review, a Digital Shield framework will be developed as a capability-based explanatory model derived from the current literature (e.g., Khurana et al., 2022; Santos et al., 2023; Elshaer & Saad, 2022). Fourth, the review focused on the context of tourism SMEs in Jordan, which were chosen as a contextually grounded case to interpret the practical relevance of the review's findings (ECO Consult, 2022; Ministry of Tourism and Antiquities, 2025b). Reviewing tourism in this way repositions this sector in a way where it is not an endpoint of analysis but as a field where other discoveries can be made and examined about entrepreneurial adaptation, dynamic capabilities, and resilience under geopolitical uncertainty (Crick & Crick, 2016; Audretsch et al., 2024; Varotsis, 2022).

2. Methodology

2.1 Review design and research questions

This study employs a systematic literature review with a contextual documentary analysis design, following established synthesis principles adapted to the interdisciplinary nature of the topic (Bhuiyan, 2024; Elkhwesky et al., 2024). This review was designed to answer a focused question about entrepreneurship while also accommodating adjacent contributions from tourism, SMEs, digital transformation, and resilience scholarship. While the core systematic synthesis is anchored in 32 foundational peer-reviewed studies, contemporary literature from 2025–2026 was strategically integrated into the discussion to reinforce the framework and validate its empirical relevance without disrupting the structural integrity of the core dataset

RQ1. What conceptual, empirical, and geographical patterns characterize the literature linking digital entrepreneurship and entrepreneurial resilience in tourism SMEs?

RQ2. Which digital entrepreneurship strategies, capabilities, and complementary conditions are associated with resilience-related outcomes in tourism SMEs under disruption?

RQ3. What research gaps remain, especially regarding long-term resilience, geopolitical turbulence, and conflict-affected contexts such as the Middle East?

2.2 Search strategy and study selection

The search process in this review combined keyword strings around four concept clusters: digital entrepreneurship and digital transformation; entrepreneurial resilience and business continuity; tourism SMEs and hospitality ventures; and crisis, disruption, conflict, or geopolitical instability. Searches were executed in the following search engines: Scopus, Web of Science, and Google Scholar. Further, supplementary backward and forward screening of relevant references was conducted. Only Studies that address tourism or tourism-related SMEs, examined digital tools or digitally enable entrepreneurial responses, in addition to containing substantive evidence or conceptual insight relevant to resilience, adaptation, continuity, or recovery under duress were considered. This search logic follows the broad-scoping strategy commonly used in recent studies on digital entrepreneurship and tourism resilience (Bhuiyan, 2024; Elkhwesky et al., 2024).

This review relied on Peer-reviewed journal articles for its core analytical corpus. Non-journal sources were used infrequently, only when they made a clear conceptual contribution to the analysis. This review did not use any studies, such as Editorials, purely descriptive commentary, or studies without a meaningful connection to resilience or entrepreneurship. The final analytical portfolio comprised 32 studies.

2.3 Data extraction and analytical procedure

The data from this review were collected manually from each study using a consistent template capturing publication outlet, context, research design, theoretical orientation, principal findings, and explicit or implicit research gaps. The collected studies were then analyzed in two stages. The first stage involved descriptive profiling to identify the field's dominant geographical, conceptual, and methodological patterns, thereby addressing RQ1. The second stage, inductive thematic synthesis, was conducted to identify recurrent resilience mechanisms and the conditions under which digital entrepreneurship appeared to be most effective, thereby addressing RQ2. The final stage used the coded research-gap material to inform RQ3. Combining both the descriptive profiling and thematic synthesis is consistent with recent reviews in adjacent fields of digital entrepreneurship and tourism (Bhuiyan, 2024; Elkhwesky et al., 2024). To bolster methodological transparency, Supplementary Appendix A presents the full review corpus and extracted fields for the 32 included studies, including authors, country/context, theoretical framework, methodology, main findings, and reported research gaps.

2.4 Methodological positioning

In order to bolster the contextual grounding of the review without changing its academic core, the review was reinforced with official Jordanian documentary sources which included the following: Environmental and Social assessment for the Jordan Tourism Strategy, quarterly and annual tourism reviews issued by the Ministry of Tourism and Antiquities, the tourism-sector skills-gaps analysis, and the Jordanian Digital Transformation Strategy and Implementation plan 2026-2028 (ECO Consult, 2022; Ministry of Tourism and Antiquities, 2024a, 2024b, 2024c, 2025a, 2025b; Ministry of Digital Economy and Entrepreneurship, 2026). These sources were used to contextualize the findings, not to replace peer-reviewed evidence.

This study should be viewed and interpreted as an **entrepreneurship-focused systematic literature review with a contextual documentary analysis**, rather than as a meta-analysis or a fully exhaustive bibliometric census. Positioning the review in this way is appropriate for the tourism field, which remains conceptually dispersed and relatively emergent, where the principal goal is analytical integration and theory development rather than statistical aggregation (Bhuiyan, 2024; Elkhwesky et al., 2024; Varotsis, 2022)

Table 1. Review design and analytical focus

Element	Specification
Review purpose	To explain how digital entrepreneurship contributes to entrepreneurial resilience in tourism SMEs under crisis and geopolitical turbulence.
Core corpus	32 peer-reviewed and academically relevant studies spanning entrepreneurship, tourism, digital transformation, and resilience scholarship.
Search scope	Scopus, Web of Science, Google Scholar, and backward/forward screening using combined terms around digital entrepreneurship, resilience, tourism SMEs, and crisis or conflict.
Inclusion logic	Studies addressing tourism or tourism-related SMEs, digital tools or digitally enabled entrepreneurial responses, and substantive relevance to resilience, adaptation, continuity, or recovery.
Analytical strategy	Descriptive profiling followed by inductive thematic synthesis and capability-based interpretation.
Supplementary contextual sources	Jordanian sector reports used to triangulate practical relevance, not to alter the formal academic review corpus.

3. Results

The results of the 32 reviewed collective studies suggest that Digital Entrepreneurship does contribute to Entrepreneurship resilience through a combination of market-facing, operational, and capability-building mechanisms (Kurniati & Suryanto, 2023; Khurana et al., 2022; Santos et al., 2023). The results also showed that the field of entrepreneurship remains uneven across geography, methods, and theoretical depth (Bhuiyan, 2024; Elkhwesky et al., 2024).

3.1 Portfolio characteristics

The descriptive profiling below is based strictly on the core 32-study dataset. Contemporary literature from 2025–2026 is reserved for the discussion to maintain statistical consistency. There is increasing interest in this review’s subject, though most studies on it were published in 2020, before the COVID-19 pandemic (Elkhwesky et al., 2024; Bhuiyan, 2024). The momentary focus on this review’s subject, with an emphasis on crisis response, digital pivoting, and adaptive continuity, is strongly influenced by the pandemic’s time period (Sharma et al., 2021; Santos et al., 2023). This concentration of studies during the pandemic reveals a conceptual bias: an inference about resilience in pandemic-era responses without systematically distinguishing between acute public-health disruption and other forms of duress, such as ongoing geopolitical turbulence (Sobaih et al., 2021; Dana et al., 2022; Varotsis, 2022).

The corpus is geographically diverse but not balanced. There are several studies on this subject in areas such as Europe, Asia, Africa, and Latin America, but they are lacking in the conflict-exposed Middle East (Sinno, 2019; Varotsis, 2022). There is more policy discourse than peer-reviewed research in Jordan regarding this study’s subject matter (ECO Consult, 2022; Ministry of Tourism and Antiquities, 2025b). Methodologically, cross-sectional and qualitative case-based designs dominate previous research (Haddoud et al., 2022; Ooi et al., 2023; Pongtanalert & Assarut, 2022). The lack of Longitudinal studies, which obscures the field’s ability to determine whether digital responses generate temporary continuity, medium-term adaptation, or enduring capability transformation (Khurana et al., 2022; Santos et al., 2023).

The results of previous studies on Theoretical anchoring are mixed. There is a mixture of studies that explicitly mobilize dynamic capabilities, resilience, entrepreneurial orientation, or ecosystem perspective (e.g., Khurana et al., 2022; Milwood & Maxwell, 2020; Elshaer & Saad, 2022). Other previous studies are mainly descriptive, documenting

digital practices and then theorizing how those practices are translated into resilience (Kurniati & Suryanto, 2023; Fianto & Andrianto, 2022). The above variation of studies provides a justification for a stronger integrative framework (Bhuiyan, 2024; Varotsis, 2022).

3.2 Digital entrepreneurship as a resilience mechanism

The first subject matter concerns digital entrepreneurship as a mechanism of entrepreneurship resilience. Previous literature has shown that tourism SMEs use digital tools to redesign how value is produced, delivered, and captured, and only as a means of communication with customers (Kurniati & Suryanto, 2023; Marino et al., 2022; Hernández Sánchez & Oskam, 2025). Media such as social media, direct-to-consumer marketing, online platforms, e-bookings systems, virtual tourism products, and digitally mediated partnerships allow firms to remain visible, maintain transactional continuity, and diversify market reach during disruption (Kurniati & Suryanto, 2023; Fianto & Andrianto, 2022; Marino et al., 2022).

At a basic level, the above tools, which are direct methods, can reduce the dependence on traditional intermediaries and physical co-presence (Marino et al., 2022; Fianto & Andrianto, 2022). During times of turbulence, the use of more unconventional and direct methods can make a difference in terms of issues such as reliability, speed, and reputational costs, which the conventional methods are most susceptible to (Sharma et al., 2021; Varotsis, 2022). Digital channels will enable entrepreneurs to communicate safely, reposition offerings, update customers rapidly, and sustain customer relationships even when travel demand weakens (Fianto & Andrianto, 2022; Tang, 2024; Santos et al., 2023). In this sense, digital entrepreneurship functions as a continuity mechanism (Kurniati & Suryanto, 2023; Santos et al., 2023).

Another area of concern is digital pivoting. Several previous studies have shown that resilience is augmented when entrepreneurs go beyond just digitizing existing routines but use digital tools to reshape product logic, customer segments, and revenue models (Hernández Sánchez & Oskam, 2025; Varotsis, 2022; Kurniati & Suryanto, 2023). Examples of the above include remote service delivery, niche experiential repositioning, hybrid offerings, and digitally targeted domestic-market strategies (Hernández Sánchez & Oskam, 2025; Kurniati & Suryanto, 2023; Varotsis, 2022). This process exceeds the straightforward technology adoption process but is an entrepreneurial process that involves opportunity recognition and business-model adaptation under turbulence (Audretsch et al., 2024; Varotsis, 2022).

The third layer involves advanced digital capabilities, including analytics, AI, automation, platform intelligence, and data-driven decision support (Santos et al., 2023; Tang, 2024; Khatami et al., 2024). Even though these capabilities are less common than basic digital marketing tools, prior literature shows that they can improve responsiveness, forecasting, targeting, and operational efficiency when aligned with firm capabilities (Tang, 2024; Khatami et al., 2024; Audretsch et al., 2024). The resilience effect of these capabilities is not only technology-based but depends on how they are utilized by entrepreneurs in integrating them into decision cycles, learning routines, and land strategic configuration (Santos et al., 2023; Khurana et al., 2022).

3.3 Complementary enablers and non-technological conditions

The second major theme is that entrepreneurship does not operate in a vacuum. Entrepreneurship's effect on resilience is dependent on complementary non-technological enablers (Haddoud et al., 2022; Elshaer & Saad, 2022; Ooi et al., 2023). Three of the non-technological enablers are especially salient.

The first enabler is human and psychological factors, which appear repeatedly as resilience multipliers. Digital tools are used reactively, instrumentally, or strategically, depending on an entrepreneurial mindset, adaptive performance, confidence under pressure, a learning orientation, and psychological capital (Haddoud et al., 2022; Elshaer & Saad, 2022; Pongtanalert & Assarut, 2022). Resilience gains remain limited even with the availability of Digital infrastructure because of the lack of confidence, capacity for experimentation, or the willingness to reconfigure routines (Haddoud et al., 2022; Pongtanalert & Assarut, 2022).

The second non-technological issue is that digital literacy is essential. Studies have revealed that the quality of skills, staff capability, and managerial understanding of digital possibilities can constrain destination transformation, ecosystem development, and entrepreneurial resilience (Shatila et al., 2025; Elia et al., 2021; Garcez et al., 2022). This is in strong agreement with Jordanian documentary evidence, which points to digital skills, social media management, software use, and digital marketing as explicitly identified as being part of the sector's future competency needs (Skills gap analysis for the Jordanian tourism sector, 2022; Ministry of Tourism and Antiquities, 2025b).

The third non-technical issue is institutional infrastructure readiness. Whether digital entrepreneurship can move beyond isolated improvisation toward durable resilience is shaped by trust in digital systems, connectivity, policy support, access to platforms, and ecosystem collaboration (Khurana et al., 2022; Milwood & Maxwell, 2020; Ooi et al., 2023). Khurana et al. (2022) argue that resilience in crisis emerges as a second-order dynamic capability inside an entrepreneurial ecosystem. This review supports the view that resilience is more likely to be present when digital action is embedded in broader support structures rather than left to firm-level improvisation alone (Khurana et al., 2022; Milwood & Maxwell, 2020).

3.4 Research gaps

According to the previous literature, there are four recurring gaps. The first is contextual bias: Chronic geopolitical instability, conflict spillovers, and reputational contagion have received far less systematic attention as COVID-19 remains the dominant empirical backdrop (Sharma et al., 2021; Sobaih et al., 2021; Varotsis, 2022). The second gap concerns methodological limitations: The commonality of cross-sectional and single-shot designs makes it difficult to separate immediate coping from longer-term strategic transformation (Haddoud et al., 2022; Pongtanalert & Assarut, 2022; Dias et al., 2022). The third gap is conceptual ambiguity: Even though digitization, digital transformation, digital marketing, and digital entrepreneurship are distinct models, previous studies often fuse them as though they are the same level of entrepreneurial action (Bhuiyan, 2024; Garcez et al., 2022; Varotsis, 2022). The fourth gap is performance measurement: many previous studies only infer resilience from perceptions of adaptation rather than from objective indicators such as revenue stability, market diversification, survival duration, or recovery speed (Elshaer & Saad, 2022; Santos et al., 2023).

The consequences of the above gaps are the limitation of cumulative knowledge about how digital capabilities are converted into resilient entrepreneurial outcomes under different forms of uncertainty (Khurana et al., 2022; Santos et al., 2023). Further, the above gaps also restrict the field's ability to distinguish resilience-supporting digital entrepreneurship from superficial digital presence (Bhuiyan, 2024; Varotsis, 2022).

Table 2. Thematic synthesis of resilience mechanisms

Mechanism	Illustrative digital practices	Entrepreneurial function	Resilience contribution
Strategic digital pivoting	Retargeting, hybrid offers, virtual experiences	Business-model adaptation	Protects visibility and opens alternative revenues
Platform-mediated continuity	Online booking, direct communication, e-commerce links	Channel substitution	Sustains transactions and customer relationships
Data-enabled decision support	Analytics, digital feedback, and AI-assisted targeting	Market sensing and faster allocation	Improves responsiveness under volatility
Ecosystem-enabled adaptation	Digital collaboration, partnership platforms, destination communication	Collective problem solving	Reduces isolation and strengthens coordination

4. Discussion: The Digital Shield framework

This review suggests that the relationship between digital entrepreneurship and resilience is best conceptualized through a capability-based lens (Khurana et al., 2022; Santos et al., 2023). The manner in which firms sense threats and opportunities, seize viable responses, and reconfigure resources amid turbulence is best explained by Dynamic Capabilities Theory (Khurana et al., 2022; Malik & Terzidis, 2026). This interpretation is increasingly consistent with recent entrepreneurship research, which treats resilience as an evolving, multilevel capability system rather than as a single attribute or outcome (Malik & Terzidis, 2026; Tantawy et al., 2026).

To amalgamate these dimensions, this review proposes the Digital Shield framework. This framework treats digital entrepreneurship as a composite dynamic capability composed of three interdependent layers. The first layer is digital action, including social media, platforms, online booking, data analytics, AI-supported decisions, and digitally

enabled service redesign (Kurniati & Suryanto, 2023; Marino et al., 2022; Khatami et al., 2024). The second layer is entrepreneurial conversion, through which these tools serve as mechanisms for opportunity recognition, market repositioning, and business-model adaptation (Audretsch et al., 2024; Hernández Sánchez & Oskam, 2025; Varotsis, 2022). The third layer is resilience outcome, which is reflected in continuity, flexibility, recovery, and, in some cases, post-shock renewal (Crick & Crick, 2016; Elshaer & Saad, 2022; Santos et al., 2023).

Further, the framework also specifies four conditioning enablers: digital literacy, psychological capital, infrastructure readiness, and institutional support (Haddoud et al., 2022; Elia et al., 2021; Shatila et al., 2025). These four factors will determine whether digital resources remain superficial operational tools or become mechanisms of resilient entrepreneurial transformation (Khurana et al., 2022; Santos et al., 2023). The digital shield, in this way, will be an integrated capability configuration that enables tourism SMEs to preserve viability amid uncertainty and, when conditions allow, reposition themselves for recovery rather than relying on a one-dimensional technology stack (Audretsch et al., 2024; Khurana et al., 2022).

This framework will extend the current scholarship on entrepreneurship in two ways. Firstly, resilience will be treated as an entrepreneurial process supported by digitally enabled sensing, seizing, and reconfiguration instead of a reactive attribute. (Khurana et al., 2022; Malik & Terzidis, 2026). Secondly, it will reveal that the value of digital entrepreneurship lies in the entrepreneur's ability to convert digital resources into adaptive action, strategic confidence, and reviewed market positioning, rather than merely possessing technology (Tantawy et al., 2026; Shatila et al., 2025).

The relevance of this model is sharpened in the Jordanian context. Official reports regularly connect digital maturity with crisis management, skills development, product diversification, and market development priorities (ECO Consult, 2022; Ministry of Tourism and Antiquities, 2024a, 2024b, 2024c, 2025a, 2025b). The national digital transformation strategy reinforces the same logic by framing digital infrastructure, entrepreneurship support, innovation, and inclusion as interdependent foundations for economic resilience and competitiveness (Ministry of Digital Economy and Entrepreneurship, 2026).

It is important to note that recently published studies outside the core review window are consistent with this interpretation. Tantawy et al. (2026) show in their study that digitalization strengthens entrepreneurial resilience through self-efficacy and passion; Shatila et al. (2025) demonstrate the importance of digital literacy, accessibility, human capital, and agility; Ali et al. (2025) link business continuity practices to adaptive and planned resilience among tourism operators; and Malik and Terzidis (2026) conceptualize resilience as an evolving, multilevel strategic capability in SMEs. The above studies do not replace this review's findings, but materially reinforce this review's central argument.

5. Implications

5.1 Theoretical implications

This review has three central theoretical implications for entrepreneurship and SMEs research. Firstly, this review shows that there is a clearer distinction between digitization and digital entrepreneurship. Digitization refers to the use of digital tools; digital entrepreneurship refers to the strategic deployment of those tools to identify, enact, and scale entrepreneurial opportunities under changing conditions (Audretsch et al., 2024; Garcez et al., 2022). Recent studies reinforce this distinction by pointing out that digitization only becomes resilience-enhancing when it is connected to entrepreneurial self-efficacy, innovation, agility, and resource reconfiguration (Tantawy et al., 2026; Shatila et al., 2025).

Secondly, the findings of this review reinforce the view that resilience is a capability configuration rather than a static trait (Crick & Crick, 2016; Khurana et al., 2022). Isolated technologies are the most useful digital mechanisms; the most useful technologies are bundles of sensing, communication, diversification, and learning routines that can be activated under duress (Santos et al., 2023; Khurana et al., 2022). Newer resilience scholarship is consistent with this argument and further emphasizes resilience as a multilevel, digitally mediated, and strategically cultivated capability in SMEs (Malik & Terzidis, 2026).

5.2 Practical and policy implications

For practitioners, the central message is that digital presence alone is insufficient (Kurniati & Suryanto, 2023; Santos et al., 2023). It was shown that SMEs gain resilience when digital tools are connected to strategic learning, diversified channels, adaptive decision-making, and continuity planning. Evidence from tourism operators and broader

SME settings has recently shown that digitalization is most valuable when it is combined with managerial support, business continuity practice, digital literacy, and agile entrepreneurial action (Ali et al., 2025; Shatila et al., 2025; Tantawy et al., 2026).

The findings will point out that digital maturity agendas in tourism should be combined with crisis preparedness, workforce development, and SME capability support instead of being managed as isolated modernization projects, which is important for policymakers (ECO Consult, 2022; Ministry of Tourism and Antiquities, 2024a, 2024b, 2024c, 2025a, 2025b). The Jordanian Digital Transformation Strategy is moving in this direction by linking entrepreneurship, innovation, digital skills, and institutional infrastructure within a broader competitiveness agenda (Ministry of Digital Economy and Entrepreneurship, 2026).

Table 3. Entrepreneurship research agenda

Research gap	Why it matters	Priority for future research
Geopolitical turbulence underexamined	Pandemic-centered findings may not transfer to chronic regional instability.	Comparative studies of conflict spillovers, destination image shocks, and prolonged uncertainty
Limited longitudinal evidence	Short-term coping is often conflated with durable resilience	Panel, process, and before-during-after crisis designs
Conceptual conflation	Digitization, digital marketing, digital transformation, and digital entrepreneurship are often merged.	Sharper construct definition and theory testing
Weak objective performance measures	Perceptual adaptation may not reflect real resilience outcomes	Use revenue stability, diversification, survival, and recovery-speed indicators
Underdeveloped context-specific theory	Middle Eastern and similar exposed contexts remain underrepresented	Case-based and mixed-method studies in Jordan and comparable settings

6. Limitations and future research

A limitation of this study is the temporal boundary of the systematic search. While the core 32-study synthesis captures foundational literature, contemporary 2025–2026 research was reserved to validate the discussion. Future reviews should expand inclusion criteria to fully synthesize emerging post-2025 publications. Longitudinal research on digital capability development before, during and after a crisis should be used to examine these limitations (Khurana et al., 2022; Santos et al., 2023); further, there should be a testing of the Digital Shield framework in specific entrepreneurial settings, and comparing how different forms of turbulence, including geopolitical conflict spillovers, alter the relationship between digital entrepreneurship and resilient SME performance. One area that is particularly promising is the combining of newer literature on entrepreneurial self-efficacy, digital literacy, agility, and business continuity into more fine-grained models of crisis adaptation (Ali et al., 2025; Shatila et al., 2025; Tantawy et al., 2026).

7. Conclusion

This was a review of how digital entrepreneurship supports entrepreneurial resilience in the tourism SME sector during severe turbulence. After synthesizing 32 academic studies and interpreting them against contextual evidence from Jordan, this review has shown that resilience is strengthened not by digital presence alone but by the strategic combination of digital tools, entrepreneurial agency, enabling capabilities, and institutional conditions (Khurana et al., 2022; Santos et al., 2023; Shatila et al., 2025). This review’s proposed Digital Shield framework will illustrate this relationship as a dynamic, capability-based process in which digital entrepreneurship improves sensing, continuity, reconfiguration, and recovery (Crick & Crick, 2016; Khurana et al., 2022; Malik & Terzidis, 2026). Further, the recent 2025–2026 studies are broadly consistent with this interpretation, which will support this review’s central claim that digitally enabled resilience depends on how entrepreneurs convert technology into adaptive capability rather than on technology adoption in isolation (Ali et al., 2025; Malik & Terzidis, 2026; Shatila et al., 2025; Tantawy et al., 2026).

References

1. Ali, Q. S. A., Hanafiah, M. H., & Mogindol, S. H. (2025). Beyond crisis: The critical role of business continuity management in rebuilding tourism operators' competitiveness. *Tourism Management Perspectives*, 59, 101418. <https://doi.org/10.1016/j.tmp.2025.101418>
2. Audretsch, D. B., Belitski, M., Caiazza, R., Drapeau, M. D., Menter, M., & Wales, W. J. (2024). Resilience and digitally-advanced entrepreneurship. *Entrepreneurship & Regional Development*, 36(1–2), 1–9. <https://doi.org/10.1080/08985626.2023.2275193>
3. Bhuiyan, M. R. I. (2024). Examining digital transformation and digital entrepreneurship: A PRISMA-based systematic review. *Pakistan Journal of Life and Social Sciences*, 22(1), 1136–1150. <https://doi.org/10.57239/PJLSS-2024-22.1.0077>
4. Crick, J. M., & Crick, D. (2016). Developing entrepreneurial resilience in the UK tourism sector. *Strategic Change*, 25(3), 315–325. <https://doi.org/10.1002/jsc.2063>
5. Dana, L.-P., Salamzadeh, A., Mortazavi, S., Hadizadeh, M., & Zolfaghari, M. (2022). Strategic futures studies and entrepreneurial resiliency: A focus on digital technology trends and emerging markets. *TEC Empresarial*, 16(1), 87–100. <https://doi.org/10.18845/te.v16i1.6038>
6. Dias, Á. L., Cunha, I., Pereira, L., Costa, R. L., & Gonçalves, R. (2022). Revisiting small- and medium-sized enterprises' innovation and resilience during COVID-19: The tourism sector. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(1), 11. <https://doi.org/10.3390/joitmc8010011>
7. ECO Consult. (2022). Environmental and social assessment (SEA) for the Jordan Tourism Strategy (2021–2025).
8. Elia, G., Margherita, A., Ciavolino, E., & Moustaghfir, K. (2021). Digital Society Incubator: Combining exponential technology and human potential to build resilient entrepreneurial ecosystems. *Administrative Sciences*, 11(3), 96. <https://doi.org/10.3390/admsci11030096>
9. Elkhwesky, Z., El Manzani, Y., & Elbayoumi Salem, I. (2024). Driving hospitality and tourism to foster sustainable innovation: A systematic review of COVID-19-related studies and practical implications in the digital era. *Tourism and Hospitality Research*, 24(1), 115–133. <https://doi.org/10.1177/14673584221126792>
10. Elshaer, I. A., & Saad, S. K. (2022). Entrepreneurial resilience and business continuity in the tourism and hospitality industry: The role of adaptive performance and institutional orientation. *Tourism Review*, 77(5), 1365–1384. <https://doi.org/10.1108/TR-04-2021-0171>
11. Fianto, A. Y. A., & Andrianto, N. (2022). Sustainable tourism development from the perspective of digital communication. *Jurnal Studi Komunikasi*, 6(1), 110–125. <https://doi.org/10.25139/jsk.v6i1.3648>
12. Garcez, A., Silva, R., & Franco, M. (2022). Digital transformation shaping structural pillars for academic entrepreneurship: A framework proposal and research agenda. *Education and Information Technologies*, 27(1), 1159–1182. <https://doi.org/10.1007/s10639-021-10638-5>
13. Haddoud, M. Y., Onjewu, A.-K. E., Al-Azab, M. R., & Elbaz, A. M. (2022). The psychological drivers of entrepreneurial resilience in the tourism sector. *Journal of Business Research*, 141, 702–712. <https://doi.org/10.1016/j.jbusres.2021.11.069>
14. Hernández Sánchez, N., & Oskam, J. (2025). A “new tourism cycle” on the Canary Islands: Scenarios for digital transformation and resilience of small and medium tourism enterprises. *Journal of Tourism Futures*, 11(1), 6–22. <https://doi.org/10.1108/JTF-04-2022-0132>
15. Khatami, F., Ferraris, A., Palmucci, D. N., & Dabić, M. (2024). Impact analysis of the digital entrepreneurial ecosystem to improve the tourism industry and social sustainability. *Journal of Tourism and Services*, 15(29), 176–205. <https://doi.org/10.29036/jots.v15i29.831>
16. Khurana, I., Dutta, D. K., & Ghura, A. S. (2022). SMEs and digital transformation during a crisis: The emergence of resilience as a second-order dynamic capability in an entrepreneurial ecosystem. *Journal of Business Research*, 150, 623–641. <https://doi.org/10.1016/j.jbusres.2022.06.048>
17. Kurniati, P. S., & Suryanto, S. (2023). Digital entrepreneurship strategy in the tourism business of the tourism 4.0 era. *Journal of Eastern European and Central Asian Research*, 10(6), 819–828. <https://doi.org/10.15549/jeeecar.v10i6.1503>
18. Malik, F. S., & Terzidis, O. (2026). The metamorphosis of organizational resilience: A strategic roadmap for SMEs in the digital age. *Advance online publication. Review of Managerial Science*. <https://doi.org/10.1007/s11846-026-01002-3>
19. Marino, A., Pariso, P., & Picariello, M. (2022). Digital platforms and entrepreneurship in tourism sector. *Entrepreneurship and Sustainability Issues*, 9(4), 282–303. [https://doi.org/10.9770/jesi.2022.9.4\(15\)](https://doi.org/10.9770/jesi.2022.9.4(15))
20. Milwood, P. A., & Maxwell, A. L. (2020). A boundary objects view of entrepreneurial ecosystems in tourism. *Journal of Hospitality and Tourism Management*, 44, 243–252. <https://doi.org/10.1016/j.jhtm.2020.06.008>
21. Ministry of Digital Economy and Entrepreneurship. (2026). Jordanian Digital Transformation Strategy and the Implementation Plan 2026–2028. Government of Jordan.
22. Ministry of Tourism and Antiquities. (2024a). Quarterly tourism review: Q1 2024. Government of Jordan.
23. Ministry of Tourism and Antiquities. (2024b). Quarterly tourism review: Q2 2024. Government of Jordan.
24. Ministry of Tourism and Antiquities. (2024c). Quarterly tourism review: Q3 2024. Government of Jordan.
25. Ministry of Tourism and Antiquities. (2025a). Annual tourism review: 2024. Government of Jordan.
26. Ministry of Tourism and Antiquities. (2025b). Quarterly tourism review: Q1 2025. Government of Jordan.
27. Ooi, S. K., Amran, A., & Chew, X. L. (2023). The role of social capital and entrepreneurial orientation in developing tourism SMEs' resilience. *International Journal of Advanced Research in Economics and Finance*, 5(1), 303–311.

28. Pongtanalert, K., & Assarut, N. (2022). Entrepreneur mindset, social capital and adaptive capacity for tourism SME resilience and transformation during the COVID-19 pandemic. *Sustainability*, 14(19), 12675. <https://doi.org/10.3390/su141912675>
29. Santos, S. C., Liguori, E. W., & Garvey, E. (2023). How digitalization reinvented entrepreneurial resilience during COVID-19. *Technological Forecasting and Social Change*, 189, 122398. <https://doi.org/10.1016/j.techfore.2023.122398>
30. Sharma, G. D., Thomas, A., & Paul, J. (2021). Reviving tourism industry post-COVID-19: A resilience-based framework. *Tourism Management Perspectives*, 37, 100786. <https://doi.org/10.1016/j.tmp.2020.100786>
31. Shatila, K., Yela Aránega, A., Soga, L. R., & Hernández-Lara, A. B. (2025). Digital literacy, digital accessibility, human capital, and entrepreneurial resilience: A case for dynamic business ecosystems. *Journal of Innovation & Knowledge*, 10(3), 100709. <https://doi.org/10.1016/j.jik.2025.100709>
32. Sinno, N. (2019). The effect of digital transformation on innovation and entrepreneurship in the tourism sector: The case of Lebanese tourism services providers. In M. Themistocleous, M. Papadaki, & M. Kamal (Eds.), *Digital Economy. Emerging Technologies and Business Innovation (Lecture Notes in Business Information Processing, Vol. 361, pp. 29–39)*. Springer. https://doi.org/10.1007/978-3-030-30874-2_3
33. Skills gap analysis for the Jordanian tourism sector. (2022).
34. Sobaih, A. E. E., Elshaer, I. A., Hasanein, A. M., & Abdelaziz, A. S. (2021). Responses to COVID-19: The role of performance in the relationship between small hospitality enterprises' resilience and sustainable tourism development. *International Journal of Hospitality Management*, 94, 102824. <https://doi.org/10.1016/j.ijhm.2020.102824>
35. Tang, R. (2024). Can digital economy improve tourism economic resilience? Evidence from China. *Tourism Economics*, 30(6), 1359–1381. <https://doi.org/10.1177/13548166231206241>
36. Tantawy, A. A., Abdalla, S., Ng, P. Y., & Amankwah-Amoah, J. (2026). Entrepreneurial resilience in the digital era: The role of entrepreneurial self-efficacy and passion. Advance online publication. *Journal of Small Business Management*. <https://doi.org/10.1080/00472778.2026.2628641>
37. Varotsis, N. (2022). Digital entrepreneurship and creative industries in tourism: A research agenda. *Economies*, 10(7), 167. <https://doi.org/10.3390/economies10070167>