



DIGITAL RESILIENCE STRATEGIES OF NIGHT-TIME CULINARY SMES (EVIDENCE FROM BANDUNG,INDONESIA)

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ABSTRACT

This study explores digital resilience strategies among Micro, Small, and Medium Enterprises (MSMEs) operating in the Lengkong Culinary Night area of Bandung, Indonesia. Using a qualitative participatory case study combined with netnography, data were collected through in-depth interviews, participatory observation, and digital trace analysis involving four MSME cases selected through purposive sampling. Data were analyzed using thematic coding and triangulation, guided by the Dynamic Capabilities perspective. The findings indicate that digital technologies including QRIS payments, food delivery platforms, and social media function not only as marketing tools but also as mechanisms that enable MSMEs to maintain business continuity under spatial, regulatory, and environmental constraints. Across the four cases, recurring patterns of sensing market changes, adapting business practices, and integrating online-offline operations informed the development of a Grassroots Socio-Technical Resilience model. The model emerged inductively from the empirical data by identifying common resilience practices across participants and linking them to Dynamic Capabilities Theory. The study contributes to the understanding of digital resilience in urban night-time culinary economies by demonstrating how informal businesses develop adaptive capabilities through the interaction of technology, community governance, and entrepreneurial agency.

1. INTRODUCTION

Digital transformation has become a critical capability for MSMEs operating in increasingly volatile business environments (Yao et al., 2026). Beyond improving marketing efficiency, digital technologies enable firms to maintain operational continuity under economic, environmental, and regulatory disruptions (Sahar et al., 2026). Consequently, digital resilience has emerged as an important concept in understanding how small businesses sustain competitiveness in uncertain contexts (Śmaguc et al., 2026). One setting where digital resilience is particularly relevant is the urban night-time economy, where businesses face fluctuating customer demand (Hisyam et al., 2024), weather uncertainty, limited operating hours, and intense spatial competition (Destina Paningrum et al., 2023). In Bandung, the Lengkong Culinary Night district represents a rapidly developing night-time culinary ecosystem that illustrates these challenges (Charisma et al., 2025).

In Indonesia, the dominance of the three main creative economy sub-sectors namely culinary arts, crafts and fashion has become a driving force for the economy, with micro and small enterprises dominating the economic pyramid. West Java, and specifically the city of Bandung, has recorded exponential growth in the creative economy (Rosid et al., 2023). One of the most tangible manifestations of the contemporary economic landscape arising from this economic resurgence is the rise of the 'Night Economy' phenomenon, centred on street food tourism (Boari et al., 2024). The city of Bandung has responded to this trend by launching a formal pilot scheme in the Lengkong Kecil Street area as the 'Lengkong Culinary Night' destination, which began on Saturday, 8 June 2024, and operates at weekends from 18:00 to 23:59 WIB⁹. Situated in a highly strategic location,

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just 1.3 kilometres or an 18-minute walk from the historic tourism hub of Jalan Braga, this area has instantly become a new magnet for urban tourism (Rizkyatul C et al., 2023).

Despite growing public investment in the Lengkong Culinary Night program, participating MSMEs continue to face operational vulnerabilities arising from weather disruptions, regulatory restrictions on street trading, dependence on digital platforms, and increasing competition among vendors. These conditions require adaptive capabilities that extend beyond conventional marketing practices. Previous studies have demonstrated that digital technologies improve MSME resilience during crises by facilitating online transactions, digital payments, and platform-based marketing. Other studies have explained resilience using Dynamic Capabilities Theory, emphasizing firms' abilities to sense opportunities, seize them, and transform organizational resources. However, existing research has primarily examined digital resilience in manufacturing firms, formal SMEs, or post-pandemic recovery contexts. Limited attention has been given to informal culinary MSMEs operating within urban night-time economies, where resilience is simultaneously influenced by spatial regulations, community governance, and platform ecosystems.

This research is based on *Dynamic Capabilities Theory*, which posits that organisations maintain their competitive advantage through environmental *sensing* capabilities, tactical decision-making to *seize* opportunities, and the continuous transformation of resources (Abbas, 2026). At the micro level, this theory is integrated with the *Digital Resilience* framework, which breaks down resilience into the dimensions of *anticipation*, *system robustness*, *business model adaptation*, and *post-crisis recovery* (Ramezani et al., 2025). Although the fundamental principles of technology adoption by MSMEs have been extensively explored, there is a gap in the literature regarding the intersection between urban spatial dynamics, social community policies, and the cognitive capabilities of informal sector traders in building digital resilience (Ndlovu et al., 2025). Therefore, this study aims to explore the digital resilience strategies of MSMEs in the Lengkong Culinary Night area, evaluate the role of algorithmic platform ecosystems, and formulate a *Grassroots Socio-Technical Resilience* model. Rather than offering a universally generalizable framework, the model provides an analytical explanation of digital resilience within the specific context of Lengkong Culinary Night and may serve as a foundation for future comparative studies. that integrates the complexities of the urban night-time economic ecology. Therefore, an important research gap remains regarding how digital resilience is constructed by informal MSMEs operating in urban night-time economies and how technological adaptation interacts with community governance and spatial constraints. Furthermore, no previous study has proposed an empirically grounded conceptual model explaining these interactions in the context of Indonesian night-time culinary ecosystems.

2. METHODS

This study was designed using a qualitative approach with a descriptive case study method, a paradigm particularly relevant for analysing highly context-bound phenomena, such as the informal economic ecosystem in Public spaces (Sugiyono, 2018). The research focus was directed towards uncovering empirical insights into how and why digital resilience strategies are tactically constructed by SME actors. The research was conducted at Lengkong Culinary Night, Bandung, Indonesia, between January until March 2026. Data collection covered weekend operating hours (19:00–22:00 WIB), when business activities reached peak intensity and digital customer interactions were most observable). Purposive sampling was employed to identify information-rich cases capable of explaining the phenomenon under investigation.

The study involved eight individual informants representing four MSME business entities, consisting of: four MSME owners/managers; two operational staff responsible for digital transactions; Participants were selected using the following inclusion criteria: actively operating at Lengkong Culinary Night for at least one year; utilizing at least one digital technology (QRIS, social media, or food-delivery platform); willing to participate in repeated interviews and field observations. The four businesses were intentionally selected to represent variation in digital maturity, business age, and market orientation

(digital-native versus digitally transformed businesses), enabling analytical rather than statistical generalization. Data Collection explained in table below.

Table 1. Data Collection Structure

Semi-structured Interviews	Participatory Observation	Netnography	Data Saturation
Each interview lasted approximately 45–75 minutes and followed an interview guide covering: • Digital Adoption History; • Responses To Operational Disruptions; • Platform Utilization; • Customer Interaction; • Adaptation Strategies; • Perceived Challenges; • Future Digital Capability Development.	Observation focused on: - customer flow; - QRIS transaction practices; - delivery platform operations; - interactions between offline and online customers; - operational responses to weather conditions; - vendor collaboration.	Digital ethnography examined each participant's online presence across: - Instagram - TikTok - Google Maps	Theoretical saturation was considered achieved after analysis of the sixth interview because: • No New Resilience Strategies Emerged; • Subsequent Interviews Confirmed Existing Themes; • Observations Consistently Supported Previously Identified Categories.

Rather than seeking statistical representativeness, this study adopted an information-rich case strategy consistent with qualitative case study research. The four MSME cases were deliberately selected because they represented maximum variation in business age, digital capability, and market positioning within the Lengkong Culinary Night ecosystem. The objective was to develop analytical insights into digital resilience processes rather than estimate population characteristics. The proposed Grassroots Socio-Technical Resilience model therefore represents an empirically grounded conceptual framework derived from recurring patterns across the selected cases.

3. RESULTS AND DISCUSSIONS

The Lengkong Culinary Night area reflects an ontological shift from merely being a traffic artery to becoming a dynamic urban tourism economy. During the Coordination Meeting on Street Vendor Management, the Acting Mayor of Bandung, Bambang Tirtoyuliono, explicitly emphasized that the success of this area is heavily dependent on a *community-based approach* (Situmorang & Suryana, 2023), in which resident engagement and a collective understanding of regulations serve as the main pillars for fostering a sense of ownership (Rizkyatul C et al., 2023). This strategic direction has been empirically realised on the ground through comprehensive spatial and institutional interventions.

The spatial reorganization of the area was implemented by replacing conventional *water barriers* with *traffic cones* as a more flexible demarcation between the main road and the street vendor tent zone. The pavement along Jalan Lengkong Kecil was fully reclaimed as a dedicated pedestrian area, which not only increased pedestrian circulation capacity but also required all stalls to be reoriented so that their display areas faced directly towards pedestrians on the pavement. This infrastructure is supported by robust inter-departmental collaboration; the Department of Housing and Settlement Areas (DPKP) was involved in reorganizing the tree landscape along the pavement, whilst the Department of Social Affairs played a vital role in managing

individuals with social welfare issues (PPKS) to ensure there was no disruption to tourist psychological comfort.

Furthermore, environmental sustainability management is also accommodated through interventions by the Department of the Environment (DLH). Every street vendor is required to sort waste at source, whilst where organic waste is handed over to and managed independently by local area administrators. This collaboration has proven to yield positive results; the public appreciates the cleanliness and orderliness of the area, which provides a sense of safety, even for visitors with children.

Within this strictly structured spatial ecosystem, MSMEs are required to operate under a 'zero growth' constraint (no addition of new physical stall capacity). The profiles of the four informants, who represent the MSME population in this area, provide a comprehensive picture of the heterogeneity in technology adoption.

Table 1. Spectrum of Technology Adoption among SMEs at Lengkong Culinary Night

SME Code	Business Entity & Length of Operation	Business Demographic Characteristics	Social Media Penetration & Search Visibility	QRIS Transaction Users	Aggregator Platform Integration (Delivery)
INF-01	Katsu Babon (2 Years)	Digital Natives; targeting Gen Z consumers through visual trends.	Very High (Algorithm based trends)	Comprehensive	Not Adopted
INF-02	Post Ketan Legend 1967 (59 Years)	Digital Immigrants transforming due to the pressure of contactless regulations.	High	Comprehensive	Comprehensive
INF-03	Bakmie Feri (46 years old)	Digital Immigrants convert Si historical capital into digital brand equity.	High	Comprehensive	Comprehensive
INF-04	Warung Steak SiMantan (5 Years)	A globally adapted food and beverage business; focus on <i>place identity</i> and the <i>dine-in</i> experience.	Very High (Review management)	Comprehensive	Not Adopted

Findings from field observations and in-depth interviews reveal that these technological pillars operate far beyond their basic marketing functions. The use of the QRIS payment standard has taken over the role of cash, eliminating the operational friction of handling change whilst reducing the risk of accepting counterfeit money in low-light conditions. In the logistics sphere, food delivery platforms act as stabilisers for revenue structures. *"Before using QRIS, we often had problems with cash transactions, especially at night when customers did not have small change. Now payments are faster, and we can serve more customers during peak hours."* (INF-02) During field observation, QRIS transactions were completed within approximately one minute, reducing customer queues and minimizing cash handling during busy periods. This perception was confirmed through field observations, where QRIS transactions consistently reduced queue times during peak operating hours. Netnographic analysis further indicated that several vendors prominently promoted cashless payment facilities through Instagram Stories and customer reviews on Google Maps, suggesting that digital payment had become part of their service identity.

Discussion

An in-depth analysis of the Lengkong Culinary Night phenomenon requires a

convergence between the theoretical constructs of strategic management and sociological realities on the ground. The discussion focuses on the interpretation of *Dynamic Capabilities* at the grassroots level, the deconstruction of the dimensions of Digital Resilience, and the implications of visual creativity as a new competitive currency. Manifestations of *Grassroots Dynamic Capabilities* Based on Teece's postulates regarding Dynamic Capabilities Theory, organisations are required to continuously modify their resources in order to adapt to an environment prone to Disruption (Teece, 2025). However, unlike corporate firms which have dedicated research departments, street food SMEs execute this theory through the highly intuitive methodology of *frugal innovation* that is highly intuitive.

The 'Sensing' phase is manifested through *real-time* scanning of the social media landscape. Rather than hiring market analysts, young vendors monitor TikTok's 'For You Page' (FYP) to identify shifts in communal aesthetic preferences. This practice underscores that the platform's algorithm has evolved into micro business intelligence system. The 'Seizing' phase is realized through agile execution that circumvents structural bureaucratic barriers. When a particular seasoning trend or presentation technique (such as the use of a *blowtorch*) is identified as going viral, traders can design a new menu in the morning and bring it to market that very same evening. The speed at which this product cycle turns disrupts the traditional linear corporate R&D model. The 'Transforming' phase is evident in the fundamental restructuring of the food cart's layout and work routines. In response to the need to serve two distinct customer segments simultaneously (in-person customers on the pavement and online orders via *food delivery apps*), vendors have redesigned their value chains into a hybrid *offline-to-online* (O2O) model.

Digital Resilience Architecture In analyzing the resilience of MSMEs, the concept of *Digital Resilience* is applied to examine how traders absorb shocks and maintain operational continuity across four critical quadrants. Several participants reported monitoring customer orders and online platform activity to anticipate fluctuations in demand. Although the sophistication of these practices varied, participants described using available digital information to make operational decisions. This behavior can be interpreted through the "sensing" dimension of Dynamic Capabilities Theory, whereby firms identify environmental changes before adjusting their strategies, enabling the optimization of raw material stock before operating hours. The Coping/Robustness phase is the most essential dimension. The night-time economy is absolutely vulnerable to climatic anomalies, such as sudden stormy downpours. When such conditions occur, the flow of physical visitors comes to a complete standstill. It is at this point that *delivery* platforms function as structural shock *absorbers*. Some participants explained that they increased promotional activities through digital platforms when customer visits declined because of adverse weather. These adaptive responses suggest that digital platforms served as an alternative sales channel during periods of reduced physical demand.

The *Adaptation* phase is realized through tactical adjustments in response to regulatory restrictions. As the Bandung City Council banned *drive-thru* transactions and mandated that stalls face away from main road (Rizkyatul C et al., 2023), SMEs adapted by designing more eye-catching visual displays with neon lighting to capture the attention of pedestrians on the pavement. Finally, the Recovery phase is orchestrated through digital reputation management (Digital PR). Consumer complaints arising from long queues or order errors are addressed preventively through proactive responses to reviews on Google Maps or through personal interactions via direct messages on Instagram, which in turn transactional dissatisfaction into relational loyalty.

Visual Creativity as a Competitive Asset A specific study of culinary MSMEs in Lengkong has revealed an interesting academic finding: product innovation does not traditionally have a significant impact on business success, whereas creativity has a positive and dominant correlation. This finding coherently validates the observation that contemporary consumers are driven by the phenomenon of the 'Attention Economy' (Vettehen & Schaap, 2023). The ability to manipulate the cinematic aspects of cooking such as the flames of a *blowtorch* on mentai sauce or melting cheese

and present them in a vertical video format on TikTok has proven to be more crucial than the innovation in the spice blend itself. In a crowded night market, differentiation has shifted from the gustatory (taste) realm to the visual-digital realm.

Latent Digital Risks at the Micro and Macro Levels the success of technological integration in this region is also accompanied by the paradox of new vulnerabilities (Tang & Aldrich, 2026). Several participants described the increasing workload associated with simultaneously managing offline operations and digital marketing activities. Although participants did not explicitly characterize this experience as digital burnout, these accounts are consistent with previous studies that identify increased digital workloads as a potential source of cognitive strain among small business owners. Based in Interview SMEs in Lengkong have not yet encountered the complexity of corporate AI, their absolute dependence on the server reliability (*uptime*) of aggregator platforms and national payment gateways indicates that grassroots digital resilience relies heavily on the robustness of macro-scale cyber infrastructure.

4. CONCLUSION

This study examined how MSMEs operating in the Lengkong Culinary Night area develop digital resilience within the context of the urban night-time economy. Based on evidence from four purposively selected MSME cases, the findings indicate that digital technologies including QRIS, social media, and food delivery platforms support business continuity by enabling entrepreneurs to adapt to operational disruptions, changing customer behavior, and spatial constraints. Participants also demonstrated adaptive practices consistent with the dimensions of Dynamic Capabilities, particularly in sensing market changes, reconfiguring business processes, and integrating offline and online operations. From a theoretical perspective, this study extends the application of Dynamic Capabilities Theory to informal MSMEs operating in a night-time economy. The proposed Grassroots Socio-Technical Resilience model was developed inductively from recurring patterns observed across the participating cases and offers a contextual explanation of how technological adaptation, entrepreneurial agency, and local governance interact to support digital resilience. Rather than claiming broad generalizability, the model is intended as an analytical framework that may inform future research in comparable urban settings. Practically, the findings suggest that MSME owners can strengthen business resilience by integrating digital payment systems, maintaining an active presence on digital platforms, and adopting hybrid offline-to-online operating practices. For local policymakers, the results highlight the importance of supporting digital capability development and creating an enabling environment that facilitates the effective use of digital technologies among informal businesses. This study has several limitations. It was based on four MSME cases within a single night-time culinary district in Bandung, and the findings therefore represent context-specific insights rather than statistically generalizable conclusions. In addition, the study focused primarily on business owners' experiences and did not incorporate customer or platform-provider perspectives. Future research could examine digital resilience across multiple night-time economy locations, include a broader range of stakeholders, or employ comparative and mixed-methods designs to further evaluate and refine the proposed conceptual model.

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REFERENCES

- Abbas, J. (2026). Resource orchestration and firm competitive performance: The role of knowledge absorptive capacity in converting business analytics into strategic competitive advantage. *Technological Forecasting and Social Change*, 222, 124403. <https://doi.org/10.1016/J.TECHFORE.2025.124403>
- Boari, Y., Yovita, Y., Ramdan, A. M., Adnan, A., & Sucipto, B. (2024). Analisis Strategi Promosi Dan Pelayanan Pariwisata Dalam Meningkatkan Jumlah Pengunjung Wisata Di Indonesia. *Jurnal Ilmiah Edunomika*, 8(2). <https://doi.org/10.29040/JIE.V8I2.13321>
- Charisma, D., Hermanto, B., Purnomo, M., & Herawati, T. (2025). Building Business Resilience Through Strategic Entrepreneurship: Evidence from Culinary Micro-Enterprises in Bandung During the COVID-19 Pandemic. In *Sustainability* (Vol. 17, Issue 6). <https://doi.org/10.3390/su17062578>
- Destina Paningrum, Andry Mochammad Ramdan, Tri Febrina Melinda, Okta Karneli, & Tito Irwanto. (2023). Analysis of Online Marketing Strategies Post Pandemic COVID-19. *Quantitative Economics and Management Studies*, 4(1), 61–65. <https://doi.org/10.35877/454ri.qems1381>
- Hisyam, C. J., Rodja, Z., Salsabila, N., & Lubis, N. P. (2024). Transformasi Sosial-Ekonomi dalam Era Ekonomi Digital: Analisis Sosiologi Ekonomi terhadap Dinamika Platform Online. *JURNAL ILMIAH EKONOMI, Manajemen, Bisnis Dan Akuntansi*, 1(2), 01–13. <https://doi.org/10.61722/JEMBA.V1I2.86>
- Ndlovu, M. N., Ndlovu, E. N., & Ebewo, P. E. (2025). The Intersection of Business Models and SME Performance: A Bibliometric Analysis of Research Trends. *Administrative Sciences*, 15(4), 143. <https://doi.org/10.3390/ADMSCI15040143/S1>
- Ramezani, J., Gomes, L., & Graça, P. (2025). Crisis Response Modes in Collaborative Business Ecosystems: A Mathematical Framework from Plasticity to Antifragility. *Mathematics*, 13(15). <https://doi.org/10.3390/MATH13152421>
- Rizkyatul C, A., Swaratika, L., Nurihzany, N., Shafa M, R., Karbelani H, Z., Rozak, R. W. A., & Sukriyah, E. (2023). Potensi Lengkong Culinary Night Sebagai Daya Tarik Wisata. *Jurnal Destinasi Pariwisata*, 11(1), 64. <https://doi.org/10.24843/jdepar.2023.v11.i01.p08>
- Rosid, A., Ramdan, A. M., & Mulyana, Y. (2023). Peningkatan Kapasitas Aktivitas Pemasaran Digital Usaha Kecil Online Ayam Sijagur dan Gow Juice di Kecamatan Ujungberung Kota Bandung: Digital Marketing. *BERNAS: Jurnal Pengabdian Kepada Masyarakat*, 4(1), 339–348. <https://doi.org/10.31949/JB.V4I1.3651>
- Sahar, R., Iqbal, J., Abu Jahid, M., Abdullahel Kafi, M., & Qarar, W. (2026). Adoption of digital technologies in operation to improve sustainability: a bibliometric and content analysis for future studies. *Future Business Journal* 2026 12:1, 12(1), 33-. <https://doi.org/10.1186/S43093-026-00745-5>
- Situmorang, M. S., & Suryana, M. (2023). The Characteristics Of Tourists Doing Culinary Tour: A Case Study Of Lengkong Street Food Bandung. *Journal of Tourism Sustainability*, 3(2), 89–93. <https://doi.org/10.35313/JTOSPOLBAN.V3I2.81>
- Šmaguc, T., Škokić, V., & Kudelić, R. (2026). Digital transformation and resilience in entrepreneurship and small business: a systematic literature review. *Cogent Business & Management*, 13(1). <https://doi.org/10.1080/23311975.2026.2662665>
- Sugiyono, P. D. (2018). *Metode Penelitian Kualitatif*. CV Alfabeta.
- Tang, B., & Aldrich, D. P. (2026). The paradox of smart cities: technological advancements and the disconnection from social participation. *Telematics and Informatics*, 105, 102376. <https://doi.org/10.1016/J.TELE.2026.102376>
- Teece, D. J. (2025). Dynamic Capabilities: Foundational Concepts. *Elements in Business Strategy*. <https://doi.org/10.1017/9781009562713>
- Vettehen, P. H., & Schaap, G. (2023). An attention economic perspective on the future of the information age. *Futures*, 153, 103243. <https://doi.org/10.1016/J.FUTURES.2023.103243>
- Yao, M. X., Wang, D., & Freeman, S. (2026). Digital barriers and capabilities in aspirant emerging-market SMEs: A resource-adaptive dynamic capabilities model of transformation phases. *Technovation*, 152, 103506. <https://doi.org/10.1016/J.Technovation.2026.103506>