

How New Product Development Affect Business Resilience of MSMEs in The Tourism and Creative Industry in Magelang

Muhamad Wahid Ibrahim¹, Rochiyati Murniningsih^{2*}, Syuhada Abdi Ra'uf³,
Ilma Ratnawati⁴

^{1,2*,3}Department of Management, Universitas Muhammadiyah Magelang, Indonesia

^{1,2*,4}SME's & Entrepreneurship Center (Smart Center) Magelang, Indonesia

ARTICLE INFO



Email Correspondence :

rochiyati.murni@unimma.ac.id

Keywords: New Product Development; Organizational Resilience; Tourism and Creative Industry; MSMEs; MSMEs Resilience

DOI:

<https://doi.org/10.33096/jmb.v12i2.1279>

ABSTRACT

This study aims to investigate the influence of Open Innovation (OI), Customer-Centricity (CC), and Competitive Orientation (CO) on organizational resilience among creative industry and tourism-related MSMEs in Magelang, Indonesia. Using a quantitative approach with survey data from 161 respondents, the analysis, conducted via multiple linear regression, shows that OI and CO significantly enhance resilience, while CC does not have a statistically significant effect. Grounded in Organizational Resilience Theory, the study emphasizes that resilience is strategically developed through innovation and market adaptability. The findings contribute to resilience theory and provide practical insights for strengthening resilience in the creative and tourism sectors.

ABSTRAK

Penelitian ini bertujuan untuk menganalisis pengaruh Open Innovation (OI), Customer-Centricity (CC), dan Competitive Orientation (CO) sebagai konstruk New Product Development (NPD) terhadap ketahanan organisasi pada UMKM sektor industri kreatif dan pariwisata di Magelang, Indonesia. Dengan pendekatan kuantitatif dan data survei dari 161 responden, analisis menggunakan regresi linier berganda menunjukkan bahwa OI dan CO secara signifikan meningkatkan ketahanan, sementara CC tidak berpengaruh signifikan. Berdasarkan Teori Ketahanan Organisasi, penelitian ini menekankan bahwa ketahanan dikembangkan secara strategis melalui inovasi dan adaptasi pasar. Hasil penelitian ini memberikan kontribusi pada teori ketahanan dan memberikan wawasan praktis untuk memperkuat ketahanan UMKM di sektor kreatif dan pariwisata.



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

INTRODUCTION

The tourism industry in Magelang—comprising 178 registered destinations, including natural, cultural, and culinary sites—has emerged as a critical driver of regional economic development. In 2024, the area recorded approximately 3.58 million tourist visits, underlining the sector's strong potential (Badan Pusat Statistik Kabupaten Magelang, 2024; Badan Pusat Statistik Kota Magelang, 2024). This tourism ecosystem is supported by approximately 80,263 micro, small, and medium enterprises (MSMEs) engaged in culinary services, handicrafts, homestays, transportation, and tourism-related activities (CIMB Niaga, 2024; Jejaring Desa Wisata, 2024). However, the industry remains highly vulnerable to a wide range of disruptions—from economic shocks such as the 1997-1998 monetary crisis, terrorism-related downturns like the 2002 Bali bombing, to global disruptions like the COVID-19 pandemic—all of which have disproportionately affected MSMEs (Breier et al., 2021; Kromidha & Bachtiar, 2024; Prayag et al., 2024).

These recurring disruptions illustrate a state of *permacrisis*, in which organizations operate under prolonged volatility. In such environments, the capacity of MSMEs to adapt and recover becomes essential. This underscores the relevance of organizational resilience, defined as an organization's ability to absorb shocks, maintain core functions, and

effectively evolve amid adversity (Burgiel, 2024; Odeh et al., 2021). Rather than being a reactive mechanism, resilience is increasingly seen as a proactive capability shaped by leadership, culture, strategic planning, and innovation (Georgescu et al., 2024; Hu et al., 2024; Zhang & Li, 2025). In the context of small businesses, resilience is further strengthened by social capital, government support, entrepreneurial self-efficacy, and strategic adaptation (Chowdhury et al., 2018; Hamid et al., 2023; Purwanti & Hapsari, 2022; Shafie & Isa, 2021).

A strategic approach to building resilience is found in the construct of New Product Development (NPD), which integrates innovation, organizational learning, flexibility, and digital transformation to help businesses adapt to dynamic market conditions (Dan, 2023; Do et al., 2022; Duchek et al., 2019). Open Innovation, Customer-Centricity, and Competitive Orientation serve as key strategic dimensions that enable MSMEs to develop resilient capacities (Baierle et al., 2020; Lu et al., 2024; Ismael, 2023; Tuominen et al., 2022; Pan et al., 2021; Zhou et al., 2005). These variables help organizations to continuously innovate, understand shifting customer needs, and respond proactively to competitive threats – enhancing both market relevance and adaptive strength.

Open Innovation involves incorporating both internal and external sources of knowledge into the innovation process. It enables firms to collaborate with various stakeholders, such as customers, suppliers, and research institutions, to enhance NPD outcomes (Baierle et al., 2020; Lu et al., 2024). This collaborative model supports resilience by ensuring that product development remains agile and resourceful amid uncertainty. Customer-Centricity is central to resilience-building through NPD. Firms that embed customer feedback into their innovation processes are better positioned to develop relevant and timely offerings, enhance customer loyalty, and reduce time-to-market (Cunff & Schlick, 2023; Tuominen et al., 2022). Competitive Orientation refers to a firm's proactive posture in anticipating and responding to market dynamics. This includes continuous monitoring of competitors and strategic alignment with evolving customer expectations, which together foster adaptability and long-term survival (Pan et al., 2021; Zhou et al., 2005).

Although these variables have been individually studied in innovation literature, limited empirical research has explored them collectively as NPD constructs for enhancing organizational resilience, especially among MSMEs in the tourism sector of emerging economies. This study addresses this gap by proposing that Open Innovation, Customer-Centricity, and Competitive Orientation serve as enablers of resilience when integrated into the organization's innovation strategy.

Accordingly, this study formulates the following hypotheses:

- **H1:** *Open Innovation positively influences organizational resilience*
- **H2:** *Customer-Centricity positively enhances organizational resilience*
- **H3:** *Competitive Orientation positively strengthens organizational resilience*

This research applies a quantitative approach, collecting survey data from MSMEs in the tourism and creative industry sectors of Magelang. The model positions Organizational Resilience as the dependent variable and includes Open Innovation, Customer-Centricity, and Competitive Orientation as independent variables, operationalized as components of

the NPD construct. Using multiple linear regression and robustness testing, the study examines the individual and combined effects of these variables in fostering resilience.

By aligning strategic innovation orientations with resilience theory, this research contributes to a more integrated understanding of how MSMEs in crisis-prone sectors can sustain performance and navigate disruption. The results are expected to offer both theoretical insight and practical guidance for MSMEs, development agencies, and policymakers seeking to enhance resilience in volatile business environments.

LITERATURE REVIEW

Organizational Resilience

This study is grounded in the theory of Organizational Resilience, which refers to an organization's capacity to withstand disruption, maintain functionality, and strategically adapt amid change (Burgiel, 2024; Odeh et al., 2021). Unlike static risk management frameworks, organizational resilience emphasizes proactive adaptation through leadership, culture, innovation, and strategic decision-making (Georgescu et al., 2024; Zhang & Li, 2025). This is particularly critical for MSMEs operating in dynamic sectors like tourism, which are exposed to environmental volatility and socio-economic crises (Kromidha & Bachtiar, 2024; Prayag et al., 2024). Organizational resilience is strengthened by a range of interrelated capabilities, including transformational leadership, learning-oriented culture, strategic HRM, and information management (Burgiel, 2024; Lansonja & Austin, 2024; Odeh et al., 2021). Firms with high resilience often exhibit strong innovation capacity, digital integration, and adaptive structures that allow them to not only survive crises but emerge stronger (Hu et al., 2024; Orengo-Serra & Sánchez-Jauregui, 2021). In this study, organizational resilience is examined through the lens of New Product Development (NPD)—a strategic construct that embodies the organization's ability to learn, innovate, and respond through product development. Three dimensions of NPD are used: Open Innovation, Customer-Centricity, and Competitive Orientation, each contributing to resilience through unique mechanisms of adaptability.

Open Innovation and Organizational Resilience

Open Innovation (OI) is defined as the purposeful inflow and outflow of knowledge to accelerate internal innovation and expand markets for external use (Hung & Chou, 2013). It encompasses both external technology acquisition and external technology exploitation, enabling firms to access broader networks, share ideas, and co-create products. This approach is especially beneficial for MSMEs with limited internal R&D capacity (Hung & Chou, 2013; Olaleye et al., 2024). From a resilience perspective, OI increases a firm's adaptability by facilitating flexible responses to external changes, accelerating innovation cycles, and reducing uncertainty in new product development (Baierle et al., 2020; Dan, 2023). Studies show that inbound and outbound OI strategies are positively associated with firm performance, particularly in turbulent environments (Hung & Chou, 2013; Lu et al., 2024).

Customer-Centricity as a Resilience Enabler

Customer-Centricity refers to an organization's ability to deeply understand customer needs, integrate customer feedback, and prioritize value co-creation in product development (Narver & Slater, 1990; Tuominen et al., 2022). In the context of resilience, this orientation helps firms detect early signs of shifting market demands and respond rapidly with relevant solutions (Cunff & Schlick, 2023; Ismael, 2023). Dean et al., (2024) emphasize that customer involvement is not merely

supplementary but central to resilient innovation. Actively engaging users throughout the NPD process enhances market fit, customer loyalty, and speed-to-market—factors that are critical in unstable market conditions.

Competitive Orientation and Strategic Resilience

Competitive Orientation describes a firm's proactive awareness and responsiveness to competitors' strategies, industry movements, and environmental threats (Gatignon & Xuereb, 1995; Narver & Slater, 1990). In uncertain environments, such as those faced by tourism-based MSMEs, this orientation enhances resilience by allowing firms to anticipate changes and pivot their business models accordingly (Olaleye et al., 2024; Zhou et al., 2005). Empirical evidence suggests that a strong competitive orientation supports innovation outcomes, opportunity recognition, and strategic agility—essential components of resilience in crisis contexts (Gatignon & Xuereb, 1995; Pan et al., 2021).

New Product Development (NPD) as a Vehicle for Resilience

Open Innovation, Customer-Centricity, and Competitive Orientation collectively form the NPD construct, which has been linked to both product success and organizational resilience (Dan, 2023; Do et al., 2022; Oiku, 2024). These strategic orientations help organizations absorb external inputs, maintain market relevance, and transform disruption into opportunity. According to Olaleye et al., (2024), NPD serves as a resilience mechanism by integrating external knowledge flows, user insights, and competitive scanning into a coherent innovation strategy. A diverse and cross-functional approach to NPD enhances learning, adaptability, and collaborative problem-solving—factors that significantly increase organizational survivability in crises. Furthermore, empirical studies emphasize the complementary role of internal and external innovation capabilities in enabling small firms to overcome limitations and scale impact in volatile environments (Dean et al., 2024; Hung & Chou, 2013).

Organizational Resilience as an Outcome

Organizational resilience arises from a firm's ability to continuously adapt, innovate, and coordinate strategic actions during disruptions. For MSMEs, particularly in the tourism and creative industries, resilience requires more than endurance—it calls for transformation, market alignment, and engagement with multiple stakeholders (Oiku, 2024; Orengo-Serra & Sánchez-Jauregui, 2021). By embedding Open Innovation, Customer-Centricity, and Competitive Orientation into their product development processes, firms can build resilience frameworks that not only minimize crisis impact but also foster long-term competitiveness. This is consistent with studies highlighting the role of social capital, innovation, and entrepreneurial orientation in small business resilience (Chowdhury et al., 2018; Hamid et al., 2023; Purwanti & Hapsari, 2022; Shafie & Isa, 2021). Thus, this study adopts Organizational Resilience Theory as its guiding framework to examine how NPD-based strategies contribute to resilience among tourism-related MSMEs in Indonesia.

RESEARCH METHOD

This study employs a quantitative research design with a survey-based approach aimed at empirically testing the influence of Open Innovation, Customer-Centric Orientation, and Competitive Orientation—as constructs of New Product Development (NPD)—on organizational resilience among tourism-related and creative industry MSMEs in Magelang City and Regency, Indonesia. The quantitative approach allows for the objective measurement of relationships between variables and the generalization of findings to the broader MSME population operating within tourism value chains. The research focuses on MSMEs directly involved in tourism or supporting activities within the creative economy,

including culinary providers, handicraft producers, souvenir shops, homestays, vehicle rental services, tour guides, cultural performers, and currency exchange operators. These businesses represent vital nodes in the tourism ecosystem and significantly contribute to regional economic resilience. Although a complete registry of tourism-related MSMEs in Magelang is unavailable, regional estimates suggest that approximately 80,263 MSMEs operate in the area (Badan Pusat Statistik Kabupaten Magelang, 2024; CIMB Niaga, 2024; Jejaring Desa Wisata, 2024), making the total population size effectively unknown for sampling purposes.

Purposive sampling was applied, with inclusion criteria requiring MSMEs to have been in operation for at least five years and to be classified as tourism-related or tourism-supportive, following the typologies of Harfaz et al. (2021). Given the unknown population size, Cochran's formula was employed to determine the minimum sample size, resulting in a required minimum of 96 respondents. To strengthen statistical power, the study targeted 100–150 respondents, ultimately securing 161 valid responses, thereby exceeding the requirement and enhancing reliability (Hair et al., 2010). Data were drawn from both primary and secondary sources. Primary data were collected using a structured questionnaire distributed through online and offline channels, while secondary data included institutional reports, field observations, and documentation from government and industry sources. The questionnaire, based on validated constructs from prior studies, used a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

The operational definitions of variables were as follows. Organizational resilience, the dependent variable, reflects the ability of MSMEs to survive, adapt, and grow amid disruptions, measured by adaptability, optimism, composure, problem-solving confidence, and social connectedness (Demmer et al., 2011; Olaleye et al., 2024; Pettit et al., 2010). Open Innovation is defined as the use of internal and external knowledge flows in new product development, measured through knowledge acquisition, external collaboration, and innovation partnerships (Hung & Chou, 2013; Olaleye et al., 2024). Customer-Centric Orientation emphasizes the integration of customer needs into innovation processes, particularly customer involvement in product development strategies (Dean et al., 2024; Narver & Slater, 1990). Competitive Orientation refers to firms' responsiveness to competitor actions and market signals, including proactive positioning and competitive benchmarking (Gatignon & Xuereb, 1995; Olaleye et al., 2024).

Table 1 *Indicators Variables*

No.	Variable	Statement
1	Open Innovation	We acquire knowledge of new technologies from outside the company.
2		We regularly seek ideas from external parties that are useful to us.
3		We have effective procedures to acquire technology from external sources.
4		We proactively reach out to external parties for better product knowledge.

5		We build close relationships with external parties and rely on their innovation.
6		We develop products according to customer needs.
7	Customer-Centric	Customers often provide input on our product development.
8		Customers contribute during our new product testing.
9		We have better competitive knowledge compared to our competitors.
10	Competitive Orientation	Compared to competitors, our new products are more attractive.
11		We respond quickly to competitors' actions.
12		We have clear targets to achieve our business superiority.
13		Our business has strong social ties with all stakeholders.
14		Our business easily adapts to changing situations.
15	Organizational Resilience	Our team remains optimistic even in difficult situations.
16		Our team stays calm in high-pressure situations.
17		We are confident in our ability to solve problems.

Data analysis was conducted using IBM SPSS Statistics 25. Prior to hypothesis testing, validity and reliability tests were applied to ensure that the research instruments measured the constructs accurately and consistently (Sugiyono, 2017). The core analysis technique used was multiple linear regression, which examined the influence of the independent variables (Open Innovation, Customer-Centricity, and Competitive Orientation) on the dependent variable (business resilience). Hypothesis testing was conducted using the t-test (to examine partial effects), the F-test (to assess overall model fit), and the coefficient of determination (R^2) to measure the explanatory power of the independent variables (Ghozali, 2018).

RESULT and DISCUSSION

Instrument Validity and Reliability Testing

Validity Test

To evaluate the construct validity of the instrument, a Pearson correlation test was conducted between each item and the total score. The results showed that all 17 indicators used in the questionnaire demonstrated significant positive correlations with the total variable score, with correlation coefficients ranging from $r = 0.499$ to $r = 0.677$, and all values were significant at $p < 0.05$ or $p < 0.01$. This indicates that each item contributes meaningfully to measuring the intended construct. The correlation matrix also reflected strong inter-item consistency across variables such as Open Innovation, Customer-

Centricity, Competitive Orientation, and Organizational Resilience. These findings confirm the content and construct validity of the measurement instrument.

Reliability Test

Reliability was tested using Cronbach's Alpha, with a result of $\alpha = 0.887$, well above the 0.70 threshold suggested by (Hair et al., 2010). Furthermore, the "Cronbach's Alpha if Item Deleted" values ranged between 0.878 and 0.883, which demonstrates that no item weakened the scale's reliability. This high internal consistency affirms that the instrument is stable and dependable for capturing perceptions related to business resilience and strategic orientations.

Classical Assumption Testing

Before performing regression analysis, classical assumption tests were carried out to ensure the appropriateness of the model and the robustness of the results.

Normality

A Kolmogorov-Smirnov test was conducted to assess the normality of residuals. The result showed a significance value of $p = 0.086$, which exceeds the threshold of 0.05. This confirms that the data are normally distributed and suitable for further parametric testing.

Multicollinearity

Multicollinearity was tested using Variance Inflation Factor (VIF) and Tolerance statistics. The results for the independent variables were as follows:

- Open Innovation: VIF = 1.286, Tolerance = 0.778
- Customer-Centricity: VIF = 1.363, Tolerance = 0.734
- Competitive Orientation: VIF = 1.337, Tolerance = 0.748

All VIF values were well below 10, and Tolerance values were above 0.1, indicating that multicollinearity is not present in the model. This confirms the independence of each predictor.

Heteroscedasticity

The Glejser test revealed a significant result for Competitive Orientation ($p = 0.003$), indicating the presence of heteroscedasticity. To address this, a robust regression (HC3 method) was applied, allowing for heteroscedasticity-consistent standard errors in estimating the model parameters.

Multiple Linear Regression Analysis

Initial Regression Results

The initial regression model, without heteroscedasticity adjustment, yielded the following results:

Table 2 *Initial Regression Result*

Variable	Unstandardized B	Std. Error	t	Sig.
(Constant)	1.093	0.281	3.896	0.000
Open Innovation	0.259	0.063	4.125	0.000
Customer-Centricity	0.110	0.062	1.780	0.077
Competitive Orientation	0.385	0.069	5.566	0.000

$R^2 = 0.414$, Adjusted $R^2 = 0.403$

$F = 37.048$, Sig. = 0.000

The results indicate that Open Innovation and Competitive Orientation have a significant and positive effect on Organizational Resilience. Customer-Centricity, however, did not reach statistical significance.

Robust Regression Results

Due to heteroscedasticity, robust standard errors were computed using the HC3 (Heteroskedasticity-Consistent standard error estimator type 3) method:

Table 3 *Robust Regression Result*

Variable	B	Robust SE	t	Sig.
Intercept	1.093	.301	3.637	0.000
Open Innovation	0.259	0.085	3.028	0.003
Customer-Centricity	0.110	0.073	1.507	0.134
Competitive Orientation	0.385	0.093	4.153	0.000

These results confirm the findings of the initial regression, with Open Innovation and Competitive Orientation remaining significant, while Customer-Centricity remains statistically non-significant at the 5% level.

Discussion

This study provides empirical insight into the strategic antecedents of organizational resilience among creative industry and tourism-related MSMEs in Magelang. Drawing upon Organizational Resilience Theory, resilience is understood as a firm's ability to withstand disruptions, adapt to environmental uncertainty, and continue functioning effectively (Burgiel, 2024; Odeh et al., 2021). Rather than a passive trait, resilience is an active, multi-dimensional capability influenced by leadership, culture, innovation, and strategic adaptability (Georgescu et al., 2024; Zhang & Li, 2025). Within this framework, Open Innovation, Customer-Centricity, and Competitive Orientation—as dimensions of New Product Development (NPD)—are conceptualized as strategic drivers that contribute to building resilient MSMEs in volatile settings.

1. *The Influence of Open Innovation on Organizational Resilience*

The results confirm that Open Innovation has a positive and statistically significant effect on organizational resilience. This supports the proposition that openness to external knowledge flows—through partnerships, technology sourcing, and idea exchange—enables MSMEs to innovate more responsively under turbulent conditions (Baierle et al., 2020; Hung & Chou, 2013a). From the perspective of Organizational Resilience Theory, this finding reflects the importance of external collaboration as a resilience enabler. Openness allows firms to rapidly access new resources, interpret environmental signals, and implement novel solutions to withstand disruptions (Georgescu et al., 2024; Zhang & Li, 2025). In the context of MSMEs, especially those with limited internal capacity, such external engagement is not just beneficial but often essential (Olaleye et al., 2024). This result is consistent with prior studies highlighting that open innovation enhances adaptability and recovery in crisis-prone settings. For example, Olaleye et al., (2024) found

that SMEs that embed external innovation mechanisms are better equipped to survive uncertainty. Dan, (2023) also notes that open systems promote absorptive capacity—allowing firms to internalize and utilize knowledge effectively for adaptive innovation. Thus, the finding affirms that Open Innovation operationalizes resilience through knowledge-sharing, product diversification, and real-time responsiveness, reinforcing the proactive and learning-centered aspects of the resilience construct.

2. The Influence of Customer-Centricity on Organizational Resilience

Although Customer-Centricity showed a positive relationship with resilience, the statistical analysis revealed that the effect is not significant. This indicates that while understanding customer needs and involving users in product development remains important, it does not independently drive resilience outcomes within this sample. According to Organizational Resilience Theory, awareness of external changes—including customer behavior—is critical (Odeh et al., 2021). However, such awareness must be accompanied by agile internal systems and decision-making capabilities to translate insights into meaningful strategic adaptation (Burgiel, 2024; Carlos & Tan, 2021). This finding echoes Dean et al., (2024), who argue that customer involvement improves product relevance but may not impact broader organizational resilience unless embedded within agile innovation processes. Similarly, Ismael, (2023) dan Tuominen et al., (2022) highlight that customer orientation is effective when paired with the ability to act swiftly and structurally on feedback. In the case of MSMEs in Magelang, this could reflect a gap between sensing and execution—possibly due to constraints in digital infrastructure, innovation capability, or resource allocation. As such, Customer-Centricity appears to be a necessary but insufficient driver of resilience; it builds awareness but requires alignment with Open Innovation and Competitive Orientation to deliver measurable adaptive capacity.

3. The Influence of Competitive Orientation on Organizational Resilience

The results reveal that Competitive Orientation is the strongest and most significant predictor of organizational resilience among the three strategic orientations examined. This suggests that MSMEs with heightened awareness of competitor strategies, market trends, and differentiation opportunities are more capable of adjusting to external shocks. In line with Organizational Resilience Theory, this finding underscores the importance of strategic foresight and rapid reconfiguration as key components of resilience (Georgescu et al., 2024; Hu et al., 2024). Competitive Orientation enables firms to anticipate threats, reposition offerings, and implement adaptive strategies in a timely manner—particularly vital for firms in volatile markets like tourism. The finding is also consistent with Gatignon & Xuereb, (1995), who emphasize that market-driven strategic orientation enables firms to navigate change effectively. Olaleye et al., (2024) similarly found that proactive market behavior enhances SMEs' survival and growth. Pan et al., (2021) and Zhou et al., (2005) further demonstrate that firms that are competitively oriented are better equipped to innovate, reduce uncertainty, and respond to competitors' actions. For tourism MSMEs, where rapid shifts in demand and service expectations are common, competitive orientation acts as a strategic buffer—allowing firms not just to survive but to identify and exploit emerging opportunities during crises.

Synthesis and Theoretical Implications

Overall, the results reinforce the proposition of Organizational Resilience Theory: that resilience is not merely a trait but an outcome of deliberate and strategic organizational behavior. Each NPD construct examined contributes to resilience through different mechanisms:

- Open Innovation supports proactive learning and external adaptation.
- Customer-Centricity enhances environmental awareness but requires structural agility to be fully effective.
- Competitive Orientation strengthens strategic responsiveness and market-driven adaptability.

The empirical evidence supports the view that organizational resilience is a multi-dimensional outcome built through the integration of external collaboration, market insight, and competitive foresight (Burgiel, 2024; Oiku, 2024; Olaleye et al., 2024). For MSMEs operating under constant uncertainty – such as those in tourism and creative industries – these capabilities are critical not only for crisis survival but also for opportunity generation. Practically, this study offers insights for MSME owners, development practitioners, and policymakers seeking to enhance resilience capacity. Investment in innovation networks, market intelligence systems, and organizational agility will help build tourism ecosystems that are not only competitive but also crisis-ready.

CONCLUSIONS and SUGGESTION

This study explored the influence of Open Innovation, Customer-Centricity, and Competitive Orientation—as dimensions of New Product Development (NPD)—on the organizational resilience of tourism-related and creative industry MSMEs in Magelang. Grounded in Organizational Resilience Theory, resilience is understood not as an inherent trait but as a dynamic and strategic outcome shaped by continuous learning, innovation, and responsiveness to environmental uncertainty (Burgiel, 2024; Odeh et al., 2021). Using data from 161 MSME respondents analyzed with multiple regression, the findings reveal that both Open Innovation and Competitive Orientation significantly and positively contribute to resilience, while Customer-Centricity, though positively related, did not show a significant effect in this context.

The results highlight that resilience grows through strategic engagement with external knowledge, proactive competitive positioning, and adaptive capacity. Open Innovation enhances resilience by allowing firms to access and apply external ideas, technologies, and partnerships—particularly important for MSMEs with limited internal R&D resources (Hung & Chou, 2013; Olaleye et al., 2024). Competitive Orientation strengthens resilience by fostering vigilance and responsiveness to market dynamics and competitor strategies (Gatignon & Xuereb, 1995; Zhou et al., 2005). The non-significant effect of Customer-Centricity indicates that understanding customers alone is insufficient; it must be integrated with operational agility and innovation capacity to translate insights into resilience (Dean et al., 2024; Tuominen et al., 2022).

Theoretically, this study enriches Organizational Resilience Theory by demonstrating how strategic innovation constructs (OI, CC, CO) enable resilience in resource-constrained

and crisis-prone contexts. Practically, it provides guidance for MSMEs and policymakers to strengthen resilience through innovation, market intelligence, and collaborative ecosystems. MSME leaders are encouraged to build networks with external stakeholders and sharpen competitive awareness to anticipate volatility, while policymakers should invest in digital innovation training, cross-sector platforms, and early-warning market systems. Future research could extend this work by examining interactions with other strategic dimensions such as entrepreneurial orientation, digital capability, or leadership style to deepen understanding of resilience in diverse small-business contexts.

REFERENCE

- Badan Pusat Statistik Kabupaten Magelang. (2024). *Jumlah pengunjung obyek wisata TR Mendut menurut asal wisatawan dan bulan di Kabupaten Magelang – Tabel Statistik*. <https://magelangkab.bps.go.id/id/statistics-table/2/MzUxIzI=/jumlah-pengunjung-obyek-wisata-tr-mendut-menurut-asal-wisatawan-dan-bulan-di-kabupaten-magelang.html>
- Baierle, I. C., Benitez, G. B., Nara, E. O. B., Schaefer, J. L., & Sellitto, M. A. (2020). Influence of open innovation variables on the competitive edge of small and medium enterprises. *Journal of Open Innovation: Technology, Market, and Complexity*, 6(4), 179. <https://doi.org/10.3390/joitmc6040179>
- Breier, M., Kallmuenzer, A., Clauss, T., Gast, J., Kraus, S., & Tiberius, V. (2021). The role of business model innovation in the hospitality industry during the COVID-19 crisis. *International Journal of Hospitality Management*, 92, 102723. <https://doi.org/10.1016/j.ijhm.2020.102723>
- Burgiel, A. (2024). Crisis as a stimulant of the resilient mindset of market entities. *Scientific Papers of Silesian University of Technology Organization and Management Series*, 2024(214), 21–38. <https://doi.org/10.29119/1641-3466.2024.214.2>
- Carlos, C. N. M., & Tan, E. B. (2021). Resilience: A necessity to manage change in organizations. *International Journal of Research Studies in Education*, 10(8). <https://doi.org/10.5861/ijrse.2021.608>
- Chowdhury, M., Prayag, G., Orchiston, C., & Spector, S. (2018). Postdisaster social capital, adaptive resilience and business performance of tourism organizations in Christchurch, New Zealand. *Journal of Travel Research*, 58(7), 1209–1226. <https://doi.org/10.1177/0047287518794319>
- CIMB Niaga. (2024). *Begini peluang bisnis industri pariwisata*. <https://www.cimbniaga.co.id/id/inspirasi/bisnis/memahami-peluang-bisnis-di-industri-pariwisata>
- Cunff, E. L., & Schlick, S. (2023). A system of customer co-creation for new product development of digital products with a pilot study of the Swiss media industry. *Proceedings of Society 5.0 Conference 2023*. <https://doi.org/10.29007/p7mp>

- Dan, Y. (2023). Organizational resilience, dynamic capability and business innovation: Inputs to continuous development model of tourism SMEs. *International Journal of Research Studies in Management*, 11(5). <https://doi.org/10.5861/ijrsm.2023.1051>
- Dean, T., Zhang, H., & Xiao, Y. (2024). Customer involvement in co-development: Problem-solving and decision-making in new product development. *European Journal of Marketing*. <https://doi.org/10.1108/EJM-12-2022-0917>
- Demmer, W. A., Vickery, S. K., & Calantone, R. (2011). Engendering resilience in small-and medium-sized enterprises (SMEs): A case study of Demmer Corporation. *International Journal of Production Research*, 49(18), 5395–5413. <https://doi.org/10.1080/00207543.2011.563903>
- Do, H., Budhwar, P., Shipton, H., Nguyen, H.-D., & Nguyen, B. (2022). Building organizational resilience, innovation through resource-based management initiatives, organizational learning and environmental dynamism. *Journal of Business Research*, 141, 808–821. <https://doi.org/10.1016/j.jbusres.2021.11.090>
- Duchek, S., Raetze, S., & Scheuch, I. (2019). The role of diversity in organizational resilience: A theoretical framework. *Business Research*, 13(2), 387–423. <https://doi.org/10.1007/s40685-019-0084-8>
- Gatignon, H., & Xuereb, J. M. (1995). Strategic orientation of the firm and new product performance. *Journal of Marketing Research*, 34(1), 77–90.
- Georgescu, I., Bocean, C. G., Vărzaru, A. A., Rotea, C. C., Mangra, M. G., & Mangra, G. I. (2024). Enhancing organizational resilience: The transformative influence of strategic human resource management practices and organizational culture. *Sustainability*, 16(10), 4315. <https://doi.org/10.3390/su16104315>
- Ghozali, I. (2018). *Aplikasi analisis multivariate dengan program IBM SPSS 25*. Semarang: Badan Penerbit Universitas Diponegoro.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis*. Pearson.
- Hamid, N., Sanusi, S., Norizan, S., Urus, S. B. T., & Lestari, E. D. (2023). Determinants of business resilience framework for small businesses: Moderating effects of financial literacy. *Review of Economics and Finance*, 21, 55–65. <https://doi.org/10.55365/1923.x2023.21.6>
- Harfaz, M. H. H., Naufal, D. Z., Berliana, S., Febrianty, Budilaksono, S., Kencana, W. H., & Gantina, D. (2021). *Strategi pengembangan UMKM desa wisata*.
- Hung, K. P., & Chou, C. (2013). The impact of open innovation on firm performance: The moderating effects of internal R&D and environmental turbulence. *Technovation*, 33(10–11), 368–380. <https://doi.org/10.1016/j.technovation.2013.06.006>

- Hu, Y., Long, C. S., & Kian, T. S. (2024). The influence of organizational resilience on SME firm performance: A conceptual model. *Business Management and Strategy*, 15(1), 205. <https://doi.org/10.5296/bms.v15i1.21813>
- Ismael, G. Y. (2023). The mediating role of resource availability and allocation in strengthening the relationship of change strategies in the growth and development of entrepreneurial projects after Covid-19. *Koya University Journal of Humanities and Social Sciences*, 6(1), 104–120. <https://doi.org/10.14500/kujhss.v6n1y2023.pp104-120>
- Jejaring Desa Wisata. (2024). *Produk wisata UMKM*. https://jadesta.kemenparekraf.go.id/paket/umkm_2
- Kromidha, E., & Bachtiar, N. K. (2024). Developing entrepreneurial resilience from uncertainty as usual: A learning theory approach on readiness, response and opportunity. *International Journal of Entrepreneurial Behaviour and Research*, 30(4), 1001–1022. <https://doi.org/10.1108/IJEBr-11-2022-1025>
- Lansonia, A., & Austin, M. (2024). The role of information management in enhancing organizational resilience. *Aptisi Transactions on Management (ATM)*, 8(1), 32–39. <https://doi.org/10.33050/atm.v8i1.2198>
- Lu, C., Qi, Y., Hao, S., & Yu, B. (2024). How and when collaborative innovation networks influence new product development performance in SMEs: Evidence from China. *Journal of Business and Industrial Marketing*, 40(1), 188–201. <https://doi.org/10.1108/jbim-11-2022-0518>
- Narver, J. C., & Slater, S. F. (1990). The effect of a market orientation on business profitability. *Journal of Marketing*, 54(4), 20–35.
- Odeh, R. B. M., Obeidat, B. Y., Jaradat, M., Masa'deh, R., & Alshurideh, M. T. (2021). The transformational leadership role in achieving organizational resilience through adaptive cultures: The case of Dubai service sector. *International Journal of Productivity and Performance Management*, 72(2), 440–468. <https://doi.org/10.1108/ijppm-02-2021-0093>
- Oiku, P. O. (2024). Innovation and organisational resilience among small and medium-sized enterprises in Lagos State. *International Journal of Business and Technology*, 14(1), 35–48. <https://doi.org/10.58915/ijbt.v14i1.298>
- Olaleye, B. R., Lekunze, J. N., Sekhampu, T. J., Khumalo, N., & Ayeni, A. A. W. (2024). Leveraging innovation capability and organizational resilience for business sustainability among small and medium enterprises: A PLS-SEM approach. *Sustainability*, 16(21), 9201. <https://doi.org/10.3390/su16219201>
- Orengo-Serra, K. L., & Sánchez-Jauregui, M. (2021). Food supply chain resilience model for critical infrastructure collapses due to natural disasters. *British Food Journal*, 124(13), 14–34. <https://doi.org/10.1108/bfj-11-2020-1066>

- Pan, X., Oh, K., & Wang, M. (2021). Strategic orientation, digital capabilities, and new product development in emerging market firms: The moderating role of corporate social responsibility. *Sustainability*, 13(22), 12703. <https://doi.org/10.3390/su132212703>
- Pettit, T. J., Fiksel, J., & Croxton, K. L. (2010). Ensuring supply chain resilience: Development of a conceptual framework. *Journal of Business Logistics*, 31(1), 1–21. <https://doi.org/10.1002/j.2158-1592.2010.tb00125.x>
- Prayag, G., Jiang, Y., Chowdhury, M., Hossain, M. I., & Akter, N. (2024). Building dynamic capabilities and organizational resilience in tourism firms during COVID-19: A staged approach. *Journal of Travel Research*, 63(3), 713–740. <https://doi.org/10.1177/00472875231164976>
- Purwanti, L., & Hapsari, R. (2022). Analyzing the role of business resilience as SME's core competence to improve business performance on pandemic crisis: A study on Indonesian SMEs. *Advances in Economics, Business and Management Research*. <https://doi.org/10.2991/aebmr.k.220128.036>
- Shafie, D. I., & Isa, S. M. (2021). Entrepreneur resilience: How do entrepreneurial self-efficacy and basic psychological needs influence it? The effect of COVID-19 on Malaysia's small and medium enterprises. *Jurnal Intelek*, 16(2), 1–10. <https://doi.org/10.24191/ji.v16i2.388>
- Sugiyono. (2017). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Bandung: Alfabeta.
- Tuominen, S., Reijonen, H., Nagy, G., Buratti, A., & Laukkanen, T. (2022). Customer-centric strategy driving innovativeness and business growth in international markets. *International Marketing Review*, 40(3), 479–496. <https://doi.org/10.1108/imr-09-2020-0215>
- Zhang, X., & Li, Z. (2025). Research on the mechanisms of organizational resilience formation in the context of digital transformation. *Frontiers in Economics and Research*, 2(1), 40–47. <https://doi.org/10.70267/7ew71h22>
- Zhou, K. Z., Yim, C. K., & Tse, D. K. (2005). The effects of strategic orientations on technology- and market-based breakthrough innovations. *Journal of Marketing*, 69(2), 42–60. <https://doi.org/10.1509/jmkg.69.2.42.60756>