

Innovation Practices and External Support for MSME Performance and Survival in Indonesia

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ABSTRACT

Amidst the rapid development of the digital economy, innovation practices are critical for enhancing performance and ensuring the sustainability of **Micro, Small, and Medium Enterprises (MSMEs)** in Indonesia. As the backbone of the national economy, contributing significantly to GDP and employment, MSMEs are vital for macroeconomic resilience and inclusive growth. However, they consistently encounter systemic challenges in maintaining business performance and long-term survival, particularly within highly competitive and volatile markets, exacerbated by the aftermath of the COVID-19 pandemic. This study aimed to analyze the impact of **innovation practices** on **MSME business performance** and **survival** in Indonesia, with **external support** serving as a moderating factor. Using a purposive sampling technique, data was collected from 281 MSME actors in Jabodetabek who had embraced innovation. **SEM-PLS** analysis revealed that innovation practices positively and significantly affect both business performance and survival. Interestingly, external support did not moderate the influence of innovation practices on business performance but did moderate its effect on business continuity.

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1. INTRODUCTION

Amidst the rapid evolution of the global digital economy, innovation practices have emerged as an indispensable cornerstone for enhancing the performance and ensuring the long-term sustainability of Micro, Small, and Medium Enterprises (MSMEs) in Indonesia. As the backbone of the Indonesian economy, MSMEs contribute a significant 61.97% to the national Gross Domestic Product (GDP) and employ a vast 97% of the country workforce [1]. Despite their pivotal role, Indonesian MSMEs confront pervasive systemic challenges that impede their business performance and survival. These include a prevalent 'innovation deficit' marked by limited engagement in research and development and slow technology adoption, often stemming from insufficient internal resources and a lack of access to crucial market insights [2]. Furthermore, a notable digital exclusion exists, particularly in rural areas, where infrastructure limitations and lower digital literacy levels restrict MSMEs ability to leverage digital tools for growth and market expansion [3]. Lastly, they face 'fragmented external support,' where available government programs, financial assistance, and mentorship initiatives often lack coordination and comprehensive reach, leaving many MSMEs without the cohesive backing

necessary for sustained innovation and resilience [4]. This complex interplay of challenges underscores the urgent need to understand how strategic innovation and external support can collaboratively foster enduring success for Indonesian MSMEs.

The advent of the COVID-19 pandemic profoundly exacerbated these pre-existing vulnerabilities, delivering a severe blow to MSMEs and unequivocally exposing their constrained adaptive capacities. During the crisis zenith, a staggering 87% of Indonesian MSMEs reported drastic revenue declines, experiencing reductions ranging from 30% to 70%, with more than 30 million businesses being compelled to temporarily cease operations. This unprecedented disruption underscored MSMEs' inherent fragility and their profound dependency on stable economic conditions [5, 6]. The pandemic also illuminated critical shortcomings in their access to essential resources, such as emergency financial aid, robust industry partnerships, and collaborative academic initiatives, particularly for businesses situated in rural or digitally underserved regions. The resulting cascade of business closures across various sectors, from culinary arts to manufacturing, served as a stark reminder of the urgent need for enhanced resilience and proactive innovation strategies within the MSME ecosystem.

In response to this existential threat, many MSMEs demonstrated remarkable resilience and creativity, accelerating their adoption of innovative practices to navigate the crisis. A significant number embarked on rapid digital transformations, leveraging e-commerce platforms like Tokopedia and Shopee, and embracing social media channels such as WhatsApp and Instagram to maintain customer engagement and pivot to online sales models. This digital shift allowed them to overcome physical mobility restrictions and reach broader markets [7]. Beyond digital adoption, MSMEs diversified their product offerings, with many shifting production to essential goods like masks and herbal supplements, or adapting their services to include contactless delivery and online consultations. These adaptive measures, driven by urgent necessity, transformed the operational landscape for countless MSMEs, underscoring the critical role of agile innovation in crisis management and business continuity.

Despite government digitalization campaigns, only 13% of SMEs were digitally connected by 2020 due to financing constraints, poor infrastructure, and low digital literacy [8]. Rural SMEs faced the steepest barriers, with limited internet access exacerbating geographic inequality [6, 9]. Government programs (credit restructuring, training) were inconsistently implemented. Rural SMEs struggled to access aid, industry partnerships, or academic collaborations, isolating them from innovation ecosystems [7].

The pandemic then had an impact on MSMEs as the economic collapse. 87% of SMEs reported 30–70% revenue declines, with 56.8% in worse shape due to lockdowns and supply chain disruptions due to lockdowns and supply chain disruptions [10, 11]. Mass closures occurred where more than 30 million SMEs temporarily stopped operations, and 45% reduced their workforce to cut costs. 26.6% faced a liquidity crisis [12].

To maintain business continuity amidst the challenges of the pandemic, MSMEs have adopted various innovative approaches, including digital transformation. Digital transformation is carried out by utilizing E-commerce, Marketing Through Social Media, Product Diversification, and Community Collaboration by campaigning "buy local products" and the formation of cooperative networks to help MSMEs share resources and maintain market demand. In utilizing E-commerce, 78% of MSMEs have switched to digital platforms such as Tokopedia and Shopee. MSMEs with good digital capabilities show business recovery that is two to three times faster than those with less digital skills [13, 14]. Marketing Through Social Media is carried out through Platforms such as WhatsApp and Instagram as an important tool in sales strategies, especially for MSMEs in the food and handicraft sectors. MSMEs are also diversifying their products by introducing products that are relevant to the pandemic situation, such as masks and herbal products, and adjusting their services, for example, by providing contactless delivery. [15].

Post-pandemic, the recovery landscape for Indonesian MSMEs remains complex, characterized by an uneven recovery and a persistent digital divide [10, 16]. Despite the accelerated digital adoption during the crisis, only approximately 19 million (29%) of MSMEs have successfully transitioned online, leaving a vast majority still offline and struggling to harness the full potential of the digital economy. This disparity is particularly pronounced in rural areas, where infrastructure limitations and lower digital literacy levels contribute to a significant lag in digital engagement [17]. Furthermore, many MSMEs continue to face acute financial fragility, marked by limited access to capital for reinvestment and growth, coupled with a leadership gap where traditional management styles may hinder the adoption of proactive innovation strategies. Critically, the existing academic literature presents significant gaps. It frequently overlooks the multidimensional nature of innovation

practices encompassing external knowledge acquisition, organizational flexibility, leadership, regeneration, and employee skills as direct drivers of both business performance and survival. Moreover, while external support is widely acknowledged, comprehensive research on how it subtly interacts with these innovation dimensions, especially its potential to paradoxically influence long-term resilience and business continuity, remains scarce [18]. Studies often focus on the direct effects of financial aid without fully exploring its moderating role in the complex interplay between innovation efforts and business outcomes.

Based on this situation, it is interesting to examine more deeply how the Innovation Practices could affect Business Performance and Survival of Indonesian SMEs in Post-Pandemic Market Competition.

So far, most studies have focused on a single dependent variable or analyzed only business performance or survival, not both. For example, studies on pandemic-era SMEs emphasize survival tactics (cost-cutting) but ignore how innovation drives long-term performance [19, 20]. Thus, many studies ignore Innovation Dimensions as Independent Variables. The existing literature often treats innovation as a monolithic construct rather than separating its dimensions 4: namely External Knowledge, Organizational Structure, Leadership and Regeneration [21]. Few studies examine External Knowledge and how partnerships with universities or industry partners enhance innovation [22, 23]). The impact of flexible Organizational Structure on survival is still under-researched [23, 24]. Empirical evidence for Entrepreneurial Leadership and Regeneration on post-crisis resilience is still limited [25, 26], and the role of External Parties is still under-explored [27, 28].

In addition, although external support (government stimulus, NGO training) is recognized, the mechanisms linking it to innovation practices are poorly understood. The literature review shows that many post COVID-19 studies focus on digital adoption but ignore other dimensions of innovation. Thus, this study directly addresses these identified research gaps by proposing and empirically testing a comprehensive model. It investigates the direct effects of a multidimensional construct of innovation practices—comprising external knowledge, organizational flexibility, leadership, regeneration, and employee skills on both MSME business performance and long-term business survival within the Indonesian context, specifically focusing on the dynamic Jabodetabek region. Crucially, this research extends beyond direct relationships by thoroughly examining the moderating role of external support in the link between innovation practices and MSME outcomes, offering a more nuanced understanding of its influence on MSME success. This study contributes significantly to the theoretical discourse by integrating various critical innovation dimensions within a cohesive framework, enriching the Resource Based View and Dynamic Capabilities theories with practical application in emerging markets. Practically, it aims to provide actionable insights for policymakers, support organizations, and MSME stakeholders, guiding the formulation of more effective strategies to foster sustainable growth and resilience, particularly by discerning whether external support positively or, paradoxically, negatively moderates the impact of innovation.

2. LITERATURE REVIEW

This study draws upon a robust theoretical foundation to explore the intricate relationships between innovation practices, external support, and MSME outcomes. The Resource-Based View (RBV) serves as a foundational lens, positing that a firm's sustained competitive advantage is derived from its unique internal resources and capabilities [29]. In the context of MSMEs, this implies that strong innovation practices such as specialized employee skills, flexible organizational structures, and visionary leadership constitute invaluable internal resources that foster a distinct competitive edge. Complementing RBV, Dynamic Capabilities Theory underscores a firm's capacity to integrate, build, and reconfigure both internal and external competences in response to rapidly changing environments [27]. This theory is crucial for understanding how MSMEs adapt to market shifts through continuous innovation, emphasizing their ability to sense opportunities, seize them, and transform their resource base. The Innovation Diffusion Theory provides insight into how new ideas and practices, including external knowledge and technological innovations, spread and are adopted within social systems over time [30], explaining the mechanisms through which MSMEs assimilate external information. Furthermore, Resource Dependence Theory highlights how organizations rely on external entities for critical resources, explaining the imperative for MSMEs to secure external support for survival and growth [31, 32]. Institutional Theory elucidates the influence of societal norms, rules, and government regulations on organizational behavior, shedding light on how external support programs shape MSMEs strategic choices [33]. Finally, the Open Innovation Paradigm suggests that firms can and should use external as well as internal ideas to advance their technology and competitive position [10], reinforcing the importance of external knowledge

acquisition. Collectively, these theories provide a comprehensive framework for analyzing how internal innovative capabilities, bolstered or constrained by external support, dictate MSME performance and survival.

By embracing innovation, MSMEs are empowered to generate significant added value, markedly enhance operational efficiency, and ultimately contribute to increased profitability [34]. This encompasses innovation in various forms: new product development that meets evolving consumer demands, service improvements that enhance customer satisfaction, and process innovations that streamline internal operations. For instance, the adoption of digital technologies, such as online inventory management systems or cloud-based accounting software, can drastically reduce operational costs and improve decision-making speed. Furthermore, leveraging digital platforms for marketing and sales allows MSMEs to overcome geographical barriers, expand their market reach beyond local boundaries, and cultivate new competitive advantages against larger enterprises [35]. Through consistent innovation, MSMEs can continuously adapt to market dynamics, ensuring their relevance and sustained growth in a competitive landscape. Ultimately, the profound impact of innovation practices transcends immediate performance metrics to significantly influence the long-term survival and resilience of MSMEs [36]. Innovation equips MSMEs with the agility to anticipate and respond to market disruptions, technological shifts, and evolving consumer preferences. Businesses that consistently innovate are better positioned to weather economic downturns, outmaneuver competitors, and build a sustainable presence in dynamic markets. This adaptive capacity, fueled by a continuous cycle of innovation, transforms MSMEs from vulnerable entities into resilient players capable of enduring and thriving amidst uncertainty, directly contributing to their longevity and ability to maintain operations over time.

H1: Innovation practices have a positive and significant effect on MSME business performance.

Innovation practices refer to the systematic and iterative activities undertaken by firms to introduce novel or significantly improved products, services, processes, organizational methods, or marketing approaches [22]. For MSMEs, engaging in these practices is not merely advantageous but imperative for sustaining competitiveness and adapting to the rapidly evolving market landscape. This study focuses on a multi faceted construct of innovation practices, recognizing that innovation is rarely a singular event but rather a combination of interconnected activities. We conceptualize innovation practices through several key dimensions: External Knowledge acquisition, Organizational Flexibility, Entrepreneurial Leadership, Regeneration, and Employee Skills. Each of these dimensions contributes uniquely to an MSME overall innovative capacity. For instance, proactively seeking and integrating external knowledge allows MSMEs to access cutting-edge information and technologies, which can be directly applied to improve their products or processes. Similarly, organizational flexibility enables rapid adaptation to new market demands, while strong entrepreneurial leadership fosters a culture of risk taking and continuous improvement. Regeneration ensures the vitality and renewal of business models, and well developed employee skills are the practical conduit through which innovative ideas are implemented [37, 38]. These dimensions, when collectively nurtured, are hypothesized to significantly enhance an MSME ability to perform effectively and survive in competitive environments.

By utilizing technology and innovation in marketing, MSMEs can reach a wider customer segment, even to the global market. Innovation in digital marketing, such as utilizing social media and e-commerce platforms, allows MSMEs to interact directly with consumers and increase the visibility of their products in a wider market. This opens up new opportunities for MSMEs to grow and not depend only on local markets that often have limitations [39, 40].

Finally, innovation in business also contributes to the ability of MSMEs to manage risk and survive in crisis situations. By innovating, MSMEs are better prepared to face uncertainty and market changes, for example, by quickly adjusting their products or services to evolving needs [41]. This adaptive ability is a determining factor for survival, especially when major disruptions such as economic crises or regulatory changes occur. Through innovation, MSMEs can remain flexible, resilient, and ready to face various challenges in the future, so that the sustainability of their business is guaranteed [42].

H2: Innovation practices have a positive and significant effect on MSME business survival.

Business survival denotes the fundamental ability of a firm to continue its operations over a sustained period, particularly when confronted with challenging or volatile economic conditions [43]. For MSMEs, in particular, achieving and maintaining survival is often the most paramount objective, preceding considerations of large scale expansion or market dominance. In this context, innovation plays an undeniably critical and multifaceted role in securing this survival. Innovation enables MSMEs to proactively adapt to market shifts, customer needs, and technological advancements, preventing stagnation and obsolescence. For example, the development of new, more efficient delivery methods or the adoption of digital payment systems can

directly enhance an MSME's operational longevity by broadening its customer base and reducing overheads [44]. Moreover, continuous innovation fosters organizational resilience, allowing MSMEs to absorb shocks from unexpected events, such as economic downturns or global pandemics, by quickly reconfiguring their strategies and offerings [45]. This proactive adaptation and inherent resilience, driven by robust innovation practices, are crucial for navigating competitive landscapes and ensuring the sustained viability of MSME operations. Without consistent innovation, MSMEs risk falling behind competitors, failing to meet evolving customer expectations, and eventually succumbing to market pressures.

H3: External support moderates the effect of innovation practices on MSME business performance.

External support encompasses a diverse array of assistance provided to MSMEs by entities outside their immediate organizational boundaries. This includes, but is not limited to, financial aid (loans, grants, subsidies), technical assistance (expert advice, technology transfer), comprehensive training programs (business management, digital literacy), and crucial networking opportunities (industry events, mentorship programs) [46]. For MSMEs, which are inherently prone to resource constraints lacking sufficient capital, advanced technology, or specialized human resources this external support is often critical for bridging capability gaps and fostering growth. While intuitively, one might expect external support to invariably strengthen the positive relationship between innovation practices and business performance, the reality can be more complex. The effectiveness of external support often depends on how it is assimilated and utilized by the MSME. If the support is not aligned with the MSME's strategic needs, or if it leads to complacency rather than active engagement, its moderating effect might be negligible or even counterproductive [47]. Previous studies have yielded mixed results regarding the moderating role of external support, suggesting that its impact is highly contextual and depends on various internal and external factors. Therefore, it is important to investigate whether external support truly enhances the efficacy of innovation practices on performance.

H4: External support moderates the effect of innovation practices on MSME business survival.

While the intuitive expectation is that external support will unequivocally bolster MSME resilience and contribute positively to their survival, its moderating impact on the relationship between innovation practices and business survival can be surprisingly nuanced, even paradoxical. Financial assistance, while seemingly beneficial, might inadvertently induce a sense of complacency among MSME owners. If funds are easily accessible or perceived as a safety net, the urgent drive for continuous innovation which often involves risk taking and significant effort might diminish [5]. This complacency effect can lead to a reduced inclination to invest in demanding innovation processes or to adapt proactively to market changes, as the immediate pressure for survival is temporarily alleviated [48]. Such a scenario, rooted in behavioral economics principles, suggests that perceived security can dampen entrepreneurial vigilance and the necessity for rigorous innovation. Therefore, while external support can provide a buffer, it may also, under certain conditions, weaken the critical link between proactive innovation efforts and long term business survival, especially if not coupled with complementary support for capacity building and strategic foresight. This hypothesis challenges conventional wisdom and seeks to uncover a more complex interaction.

3. METHODS

This study adopts a post positivist paradigm, employing a quantitative research design to test and analyze the hypothesized relationships among variables using valid and reliable self-administered questionnaires. The key research variables examined include innovation practices (comprising external knowledge, organizational flexibility, leadership, regeneration, and employee skills), business performance, business survival, and external support. The target population for this study comprised MSME business actors specifically within the culinary sector in the Jabodetabek area (encompassing DKI Jakarta, Bogor, Depok, Tangerang, and Bekasi). The culinary sector was purposively selected due to its significant economic contribution and dynamic nature within the Jabodetabek region [49]. To ensure the robustness of our data, the questionnaire was meticulously developed based on established scales from previous validated research, adapting them where necessary to the unique context of Indonesian MSMEs. A pre test was conducted with a small group of MSME operators to ensure clarity, cultural appropriateness, and ease of understanding of all questions. Furthermore, to mitigate the potential for Common Method Bias (CMB) inherent in self reported survey data, several procedural remedies were employed, including ensuring respondent anonymity, randomizing question order, and clearly separating the measurement of independent and dependent variables within the survey where feasible to reduce potential response consistency bias.

Data collection was conducted through an online questionnaire distributed via various social media platforms and direct outreach channels, targeting MSMEs within the specified culinary sector. A purposive sampling technique was utilized, recruiting 281 MSME operators in the Jabodetabek area who met specific inclusion criteria: actively operating a business in the culinary sector and having adopted discernible innovation practices within the past year. For data analysis, Structural Equation Modeling Partial Least Squares (SEM-PLS) was employed using SmartPLS 4 software. SEM-PLS was chosen due to its suitability for analyzing complex theoretical models, handling both reflective and formative constructs, and its robust performance with relatively smaller sample sizes and non-normal data distributions [19]. The analytical process involved two primary stages: First, the evaluation of the outer model, which assessed the reliability and validity of the measurement model through convergent validity (Average Variance Extracted AVE), discriminant validity (Heterotrait-Monotrait Ratio HTMT), and construct reliability (Cronbach's Alpha and Composite Reliability). Second, the evaluation of the inner model, which focused on assessing the structural relationships between constructs by examining the R-square values for explained variance and testing the proposed hypotheses through path coefficients and significance levels. This comprehensive approach ensures both the quality of the measurement instrument and the robustness of the hypothesized relationships.

4. RESULT AND DISCUSSION

The results from the collected data reveal essential insights into the demographic and business characteristics of MSME owners within the culinary sector in Jabodetabek. The data highlights the significant role of younger entrepreneurs, the majority of whom are aged between 20 to 30 years. This demographic, alongside a growing number of MSMEs in early business stages, suggests a dynamic and evolving entrepreneurial landscape. Moreover, the data on external support reveals the crucial role of non-financial assistance, such as counseling services, in shaping MSME outcomes. These findings set the stage for understanding the broader trends and relationships outlined in the following analysis.

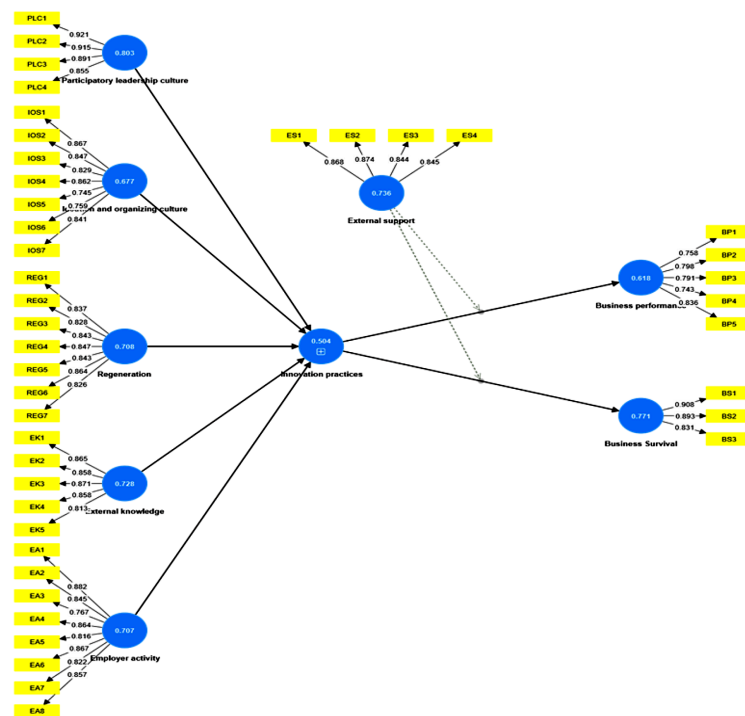


Figure 1. Outer Model SmartPLS 4.0 Data Processing

Based on the collected data from 281 MSME culinary businesses in Jabodetabek, the demographic profile of the respondents reveals several key characteristics. The majority of participants fall within the younger entrepreneurial demographic, with the age group of 20-30 years constituting the largest segment at 45.9%, closely followed by the 31-40 years age bracket at 31.3%. This indicates a vibrant presence of rela-

tively young entrepreneurs within the culinary MSME sector. Regarding business tenure, a substantial 43.1% of the respondents reported operating their businesses for 1-3 years, suggesting a significant proportion of nascent to early-stage enterprises. Meanwhile, 31.7% have been in business for 4-6 years, representing a more established segment. In terms of external support received, the data indicates that non-financial forms of assistance were most prevalent. The majority of respondents (55.5%) primarily benefited from counseling services, which often include business advisory and strategic guidance. This was followed by participation in training programs (28.8%), aimed at skill enhancement and capacity building. Only a smaller proportion (15.7%) reported receiving working capital credit, while direct cash assistance was not a primary form of support for the majority of the surveyed MSMEs. This nuanced profile highlights the specific characteristics of the sampled MSME landscape and the types of external support they typically access.

Figure 1 illustrates the outer model, demonstrating the relationships between constructs and their observed variables. All outer loadings were above the recommended threshold of 0.7, confirming the strong individual reliability of the indicators in measuring their respective latent constructs, thus validating the measurement model.

Table 1. Construct Reliability (Cronbach's Alpha and Composite Reliability)

Variable	Cronbach's alpha	Composite reliability
Business survival	0,852	0,910
Business performance	0,845	0,890
Employer activity	0,940	0,951
External knowledge	0,906	0,930
Dukungan eksternal	0,880	0,918
Ideation and organizing structure	0,920	0,936
Innovation practices	0,967	0,969
Participatory leadership culture	0,918	0,942
Regeneration	0,931	0,944

Source: SmartPLS 4.0 Data Processing

Table 1 and Table 2 present the results for construct reliability and convergent validity, respectively. All constructs demonstrated strong reliability with Composite Reliability and Cronbach's Alpha values exceeding the 0.7 threshold, indicating high internal consistency. Similarly, the Average Variance Extracted (AVE) values for all constructs were above 0.5, confirming good convergent validity, meaning that the indicators truly represent their respective constructs. For full transparency and to allow readers to comprehensively assess construct validity, future iterations of this study will include a detailed table presenting factor loadings and cross-loadings for all individual indicators.

Table 2. Convergent Validity (AVE Test)

Variable	AVE
Business Survival	0,771
Business performance	0,618
Employer activity	0,707
External knowledge	0,728
External support	0,736
Ideation and organizing structure	0,677
Innovation practices	0,504
Participatory leadership culture	0,803
Regeneration	0,708

Source: SmartPLS 4.0 Data Processing

The table shows that the variables have an AVE value 0.5, meaning that the indicators used in this study can be considered valid and reliable for measuring the construct of each latent variable. To test discriminant validity, HTMT (Heterotrait-Monotrait Ratio) was used, as in Table 3.

Table 3. Discriminant Validity (HTMT) Test

Variable	Business survival	Business performance	Employer activity	External knowledge	Dukungan eksternal	Ideation and organizing structure	Innovation practices	Participatory leadership culture	Regeneration
Business survival									
Business performance	0,832								
Employer activity	0,470	0,457							
External knowledge	0,483	0,509	0,672						
Dukungan eksternal	0,724	0,794	0,452	0,466					
Ideation and organizing structure	0,473	0,498	0,663	0,632	0,450				
Innovation practices	0,567	0,572	0,899	0,875	0,517	0,883			
Participatory leadership culture	0,527	0,513	0,666	0,730	0,437	0,692	0,865		
Regeneration	0,497	0,494	0,674	0,717	0,416	0,676	0,900	0,677	
External Support x Innovation practices	0,527	0,493	0,233	0,371	0,509	0,280	0,337	0,293	0,299

Source: SmartPLS 4.0 Data Processing. Note: HTMT values below 0.90 indicate good discriminant validity.

HTMT < 0.90, and this shows that there is discriminant, and all indicators meet the requirements. Inner Model testing can be seen in the following table.

Table 4. Variance Inflation Factor (VIF) Test

Variable	Business survival	Business performance	Employer activity	External knowledge	Dukungan eksternal	Ideation and organizing structure	Innovation practices	Participatory leadership culture	Regeneration
Business survival									
Business performance									
Employer activity				2.156					
External knowledge						2.310			
Dukungan eksternal	1.522	1.522							
Ideation and organizing structure							2.118		
Innovation practices	1.319	1.319							
Participatory leadership culture								2.341	
Regeneration									2.311
External Support x Innovation practices	1.320	1.320							

Source: SmartPLS 4.0 Data Processing. Note: VIF values below 5 indicate absence of multicollinearity.

Table 4 presents the Variance Inflation Factor (VIF) values for all constructs. All VIF values were found to be well below the common threshold of 5, indicating the absence of multicollinearity issues among the predictor variables. This confirms that the independent variables are not overly correlated with each other, ensuring the reliability of the regression coefficients in the model. While the numerical data is essential, future visual enhancements to tables, particularly for dense numerical data like this, would improve overall readability and clarity.

Table 5. R Square Test (R^2)

Variable	R-square
Business Survival	0,497
Business performance	0,535

Source: SmartPLS 4.0 Data Processing

Table 5 displays the R-square values for the endogenous variables. The R-square value for Business Performance was 0.535, indicating that innovation practices and external support collectively explain 53.5% of the variance in business performance. For Business Survival, the R-square was 0.497, meaning that 49.7% of its variance is explained by the model's predictors. These values suggest a moderate explanatory power of the model for both endogenous variables.

Table 6. Hypothesis Test Results

Hypothesis	Variable relationship	Path coefficients	t-statistic	P-value	Conclusion
H1	Innovation practices have a positive impact on business performance	0,232	3,681	0,000	Supported
H2	Innovation practices have a positive impact on business survival	0,252	3,753	0,000	Supported
H3	External support moderates the influence of innovation practices on business performance	-0,077	1,146	0,252	Not Supported
H4	External support moderates the influence of innovation practices on business survival	-0,118	2,300	0,021	Supported

Source: SmartPLS 4.0 Data Processing

Table 6 summarizes the results of the hypothesis testing, showing the path coefficients, t-values, and p-values for all hypothesized relationships. To provide a more comprehensive understanding of the practical significance of these findings, future presentations of these results could include effect size measures or confidence intervals for the path coefficients.

The findings of this study provide crucial insights into the dynamics of innovation, external support, and MSME outcomes in Indonesia. Consistent with H1 and H2, the results unequivocally demonstrate that innovation practices exert a significant positive influence on both MSME business performance and business survival. This suggests that MSMEs actively engaged in acquiring external knowledge, fostering organizational flexibility, cultivating entrepreneurial leadership, promoting regeneration, and investing in employee skills are inherently better positioned to achieve superior operational results and ensure their long-term viability. Specifically, the adoption of a participatory leadership culture, where employees are encouraged to contribute ideas and engage in continuous improvement processes, appears vital [50]. Furthermore, the ability to maintain a flexible yet organized structure allows MSMEs to swiftly adapt to market shifts and capitalize on emerging opportunities. The proactive seeking and integration of external knowledge, such as adopting new technologies or market intelligence, enables MSMEs to stay competitive and relevant [51]. Moreover, continuous regeneration of business models and processes ensures that MSMEs remain dynamic and avoid stagnation, while investing in and utilizing the skills of their employees directly translates into more effective innovation implementation and improved operational efficiency. These findings align with the Resource Based View, emphasizing that

internal capabilities derived from innovation are key strategic assets, and resonate with Dynamic Capabilities Theory, highlighting MSMEs ability to reconfigure resources for adaptive advantage.

In contrast to H1 and H2, H3, which posited that external support moderates the effect of innovation practices on MSME business performance, was not supported. This non significant moderation effect is a critical finding, indicating that while innovation practices independently drive performance, the mere presence of external support does not measurably amplify or diminish this relationship. This unexpected result suggests a disconnection between the availability of external resources and their effective strategic utilization within MSMEs innovation frameworks. One plausible explanation is that many MSMEs may lack the necessary strategic capabilities or the nuanced understanding of how to effectively integrate various forms of external support be it financial, technical, or advisory directly into their core innovation processes to yield enhanced performance. For instance, receiving a grant might help finance a new technology, but without the internal capacity for adoption, training, and strategic implementation, the performance gains from that innovation might not be significantly augmented by the external support itself [52]. This could also point to a one size fits all approach in some support programs that fails to address the specific, diverse needs of MSMEs, thereby limiting the synergistic effect between external aid and internal innovation efforts on business performance.

Most intriguingly, H4 revealed a unique and counter intuitive moderation effect, external support was found to significantly weaken the positive influence of innovation practices on MSME business survival. This finding challenges the conventional wisdom that external aid universally benefits MSMEs. Our results suggest that while innovation practices directly contribute to survival, the presence of external support can paradoxically diminish the urgency for continuous innovation. This phenomenon can be explained by insights from behavioral economics and psychology. Specifically, the concept of moral hazard or complacency effect might be at play [53]. When MSME owners perceive external financial assistance as readily available or as a safety net, this feeling of comfort tends to reduce their intrinsic motivation and the perceived necessity to exert intense effort in proactive innovation and risk taking essential for long-term survival [54]. In essence, the easy availability of funds might inadvertently dampen the entrepreneurial drive to continuously seek, develop, and implement new solutions, as the immediate pressure to innovate for survival is temporarily alleviated. This implies that if external support is not strategically coupled with capacity building programs, accountability mechanisms, or a focus on fostering digital literacy and technology adoption, it might inadvertently foster a passive reliance rather than empowering sustained, self-driven innovation. Therefore, to mitigate this paradoxical weakening effect, it is crucial for support programs to integrate robust digital literacy and technology adoption initiatives. Empowering entrepreneurs with the knowledge and skills to effectively leverage financial aid for sustained innovation, rather than solely for short-term comfort or survival, can transform external support into a genuine catalyst for long-term business resilience and growth.

5. MANAGERIAL IMPLICATION

This study offers crucial insights for MSME owners, policymakers, and external support organizations. MSME owners must prioritize continuous innovation, encompassing external knowledge, organizational flexibility, strong leadership, regeneration, and employee skills, as these directly enhance performance and survival. For policymakers and support providers, the findings necessitate a re-evaluation of external aid strategies. Generic financial support alone is insufficient and can even foster complacency, negatively impacting long-term survival. Therefore, support programs should be strategically redesigned to integrate mandatory digital literacy and technology adoption training, ensuring that funds empower MSMEs to leverage innovation for sustainable growth, rather than merely for short-term relief. This calls for tailored, capacity-building interventions that emphasize strategic utilization of resources and promote a proactive, digitally-enabled entrepreneurial mindset.

6. CONCLUSION

This study rigorously investigated the intricate relationships between innovation practices, external support, and the crucial outcomes of business performance and survival for MSMEs in Indonesia, particularly within the dynamic Jabodetabek region. Our findings robustly confirm that innovation practices are a fundamental driver for both enhanced business performance and sustained business survival. The adoption of a participatory leadership culture, which fosters collaboration and creativity; the embrace of continuous ideation and flexible organizational structures, enabling swift adaptation to market changes; and the strategic utilization of external knowledge from various networks are all pivotal elements that collectively contribute to superior

operational results and long-term viability for MSMEs. Furthermore, the proactive engagement of employees through regeneration and self-development activities significantly strengthens human resource quality, directly boosting competitiveness and overall business outcomes. These results underscore that internal innovative capabilities are indispensable strategic assets for MSMEs in navigating competitive and volatile markets.


However, the study also unveiled a more complex role for external support than conventionally assumed. While innovation practices directly impact performance, external support was found to have no significant moderating effect on this relationship, suggesting that its mere presence does not automatically amplify performance gains from innovation. More notably, and counter-intuitively, external support was found to negatively moderate the effect of innovation practices on MSME business survival. This indicates that, under certain circumstances, external financial assistance might inadvertently foster a sense of complacency, diminishing the urgent drive for continuous innovation that is vital for long-term resilience. This highlights a critical challenge for support programs: ensuring aid empowers rather than creates dependency or reduces proactive entrepreneurial behavior.


In conclusion, for Indonesian MSMEs to thrive and endure, a strong commitment to multi-faceted innovation practices is paramount. Policymakers and support organizations must therefore re-evaluate current assistance models, shifting from generic aid to more strategic interventions that directly enhance MSMEs capacity to innovate and effectively utilize resources. Integrating digital literacy and technology adoption initiatives within financial support packages, and ensuring aid encourages, rather than replaces, entrepreneurial initiative, will be crucial. This targeted approach will transform external support into a true catalyst for sustainable growth, enabling MSMEs to leverage their innovation capabilities for lasting success in a rapidly evolving economic landscape.”

7. DECLARATIONS

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7.2. Author Contributions

Conceptualization: PT; Methodology: MT; Software: DW; Validation: PT; Formal Analysis: MT; Investigation: DW; Resources: PT; Data Curation: MT; Writing Original Draft Preparation: DW; Writing Review and Editing: PT and DW; Visualization: MT; All authors, PT, MT, and DW have read and agreed to the published version of the manuscript.

7.3. Data Availability Statement

The data presented in this study are available on request from the corresponding author.

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7.5. Declaration of Conflicting Interest

The authors declare that they have no conflicts of interest, known competing financial interests, or personal relationships that could have influenced the work reported in this paper.

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