



Exploring the Nexus of Strategic Flexibility, Innovative Behavior, and Business Performance in SMEs: A Quantitative Investigation with a Focus on Innovative Behavior as a Mediator

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Abstract: This study seeks to explore the interconnection among strategic flexibility, innovative behavior, and business performance within SMEs, focusing on the mediating role of innovative behavior. Employing a quantitative approach with a causal design, data collection involved surveys distributed to 130 senior managers of SMEs in East Java through cluster random sampling. Findings reveal that strategic flexibility positively influences both innovative behavior and business performance significantly. Moreover, innovative behavior serves as a mediator in the relationship between strategic flexibility and business performance. Nonetheless, limitations include cautious generalization due to the regional sample limitation to East Java and potential biases or inaccuracies from questionnaire usage. The practical implication underscores the significance of fostering strategic flexibility and an innovation culture within SMEs. Theoretically, this study enhances comprehension of the nexus among strategic flexibility, innovative behavior, and business performance in SMEs. Its notable contribution lies in furnishing empirical evidence supporting this relationship and uncovering the novel insight of innovative behavior's mediating role therein.

Keywords: strategic flexibility; innovative behavior; business performance; small and medium enterprises (SMEs).

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1. Introduction

Currently, significant transformations in the business landscape due to information technology have impacted various facets including competition, production, marketing, and HR management (Cooper, 2024; Aharoni, 2024). Small enterprises, leveraging their physical and human resources, must brace themselves

for dynamic global competition (Yuliastuti et al., 2024). Heightened competition, particularly amidst evolving environments, underscores the significance of innovation and efficient HR management for sustaining competitive advantage (Yuliastuti et al., 2024). Employing information technology investment as a strategic approach, management endeavors to surmount these challenges (Arsu, 2024). Through strategic implementation of information systems, companies can enhance efficiency, effectiveness, and innovation to retain competitiveness (Pearlson et al., 2024). Hence, proficient HR management stands as the cornerstone of a company's success in confronting swift change and fierce competition (Fawehinmi et al., 2024). Furthermore, the advent of Industrial Revolution 5.0 amplifies the efficacy of HR management, empowering companies to endure amid swiftly evolving business landscapes (Fawehinmi et al., 2024). Propelled by technological strides like artificial intelligence in robotics, companies undergo significant metamorphosis in resource management and utilization (Fawehinmi et al., 2024).

These underscore the vital role of HR management for small enterprises to stay pertinent and prosperous in the globalization era. Conversely, SMEs must prioritize swift adaptation, innovation development, and strategic flexibility to uphold competitive edge in uncertain milieus (Sugiono et al., 2024). Similarly, fostering business resilience through flexibility and adaptation is imperative for SMEs (Seow et al., 2024). Despite challenges, embracing circular economy practices and innovation remains pivotal, albeit SMEs often encounter hurdles in grappling with them (Xie et al., 2023; Mukherjee et al., 2024). Thus, cultivating strategic flexibility and innovative behavior emerges as quintessential for SMEs to attain sustainable growth and enduring success in the business realm.

2. Literature Review

2.1. Strategic Flexibility

Entrepreneurs grapple with uncertainties stemming from swiftly evolving economic and political landscapes. While traditional management principles have historically steered organizations to success in stable contexts, they have proven insufficient in preparing them for uncertainty. In contemporary times, companies necessitate swift adaptability to environmental shifts, underscoring the significance of strategic flexibility (Kortmann et al., 2014). Strategic flexibility encompasses a company's capacity to proactively act or promptly respond to alterations in competitive and environmental dynamics (Brozovic, 2018; Kortmann et al., 2014). This metric, formulated through research (Beraha et al., 2017), comprises elements such as Financial Strength, Human Resource Availability, Adaptation, Flexibility, Innovation, Partnership, and Responsibility

2.2. Innovative Behaviour

Innovation denotes the process of converting knowledge and ideas into novel products and services, aiming to offer enhanced value to customers and markets, thereby generating profits or added value for the company (Jaskyte, 2011; Acar et al., 2019; Al-Hakim and Hassan, 2016; Prajogo, 2016). In today's fiercely competitive business milieu, innovation has emerged as a focal point for both researchers and business practitioners (Berghman et al., 2013; Alshammari et al., 2014), as it is perceived as a pivotal driver of global economic advancement (Boult et al., 2018). Consequently, efforts are directed towards formulating strategies and allocating resources conducive to fostering innovation, with the aim of sustaining competitiveness (Bernardo, 2014) and fostering long-term revenue and profit growth (Berghman et al., 2013). The heightened emphasis on innovation among researchers and business practitioners has led to diverse approaches to innovation. Innovation behavior encompasses endeavors to translate knowledge and

ideas into fresh products, processes, services, or systems that benefit the company and its stakeholders (Jaskyte, 2011). Within the scope of this study, innovation strategy is delineated as the process of converting knowledge and ideas into new products, processes, or services, while also enhancing existing methodologies, products, and services to cater to customer needs and bolster company profits. This metric, developed based on research (Damanpour, 1991), encompasses elements like creativity, discovery, initiative, collaboration, flexibility, leadership, appreciation, and technology.

2.3. Business Performance

Business performance pertains to the degree to which an organization attains predetermined objectives, encompassing achievements in production, cost management, product excellence, delivery punctuality, service quality, sales volume, market participation, and profitability (Mia and Clarke, 1999). It stems from entrepreneurial endeavors aimed at goal attainment, demonstrated through the efficacy of entrepreneurs possessing acumen, inventiveness, proactive engagement with technological advancements, and their adept implementation (Purnama, 2014). This efficacy is gauged by enhanced business performance compared to previous periods and relative to comparable enterprises, including efficiency in production processes, corporate targets such as capital, business scale, expansion, and financial indicators like profitability, liquidity, solvency, and corporate reputation. Business prosperity hinges on the efficiency of production processes, encompassing both technical and economic aspects (Algifari, 2014). This delineation identifies various factors determining business success, which serve as benchmarks for constructing research instruments, featuring variables such as Revenue, Net Profit, Growth, Profit Margin, Market Share, Customer Satisfaction, Operational Efficiency, Employee Retention, Product Innovation, and Return on Investment.

2.4. Relationship between variables

Research has extensively documented significant findings indicating the positive influence of strategic flexibility on business performance and the pivotal role of open innovation in enhancing such performance (Meena et al., 2024). Additionally, leadership orientation, capability, and performance emerge as crucial drivers of strategies aimed at fostering innovation (Yang et al., 2023). Similar observations were made by Daradkeh & Mansoor (2023), underscoring the significant moderating role of strategic flexibility in the nexus between network orientation and entrepreneurial orientation with innovation and startup performance in emerging economies. Consequently, the following hypotheses can be postulated: H1. Strategic flexibility exerts a substantial impact on innovative behavior. Bashir (2023) noted the pivotal role of strategic flexibility capabilities in influencing business performance, stressing that the benefits of strategic flexibility are not contingent on specific factors. Conversely, Hensellek et al. (2023) underscored the significant impact of strategic flexibility on venture performance. Hence, the following hypothesis can be proposed: H2. Strategic flexibility significantly affects business performance. Abbas et al. (2024) discovered that digitized innovation positively affected company performance through the introduction of innovative products. Lu & Wang (2024) demonstrated that the choice of innovation strategy markedly influences the economic and social performance of companies oriented towards social innovation. Somwethee et al. (2023) investigated the influence of innovation capabilities on sustainable organizational performance, particularly in community enterprises in Thailand. Larios-Francia & Ferasso (2023) explored the relationship between innovation and performance in SMEs, particularly in the apparel sector in developing countries. Consequently, the following hypothesis can be posited: H3. Innovative behavior significantly impacts business performance. Bashir (2023) assessed the impact of strategic flexibility on the performance of small and medium enterprises (SMEs), as well as how business model innovation mediates the

relationship between strategic flexibility and SME performance. Thus, the following hypothesis can be formulated: H4. Strategic flexibility significantly affects business performance, which is mediated by innovative behavior. The conceptual framework is depicted in Figure 1.

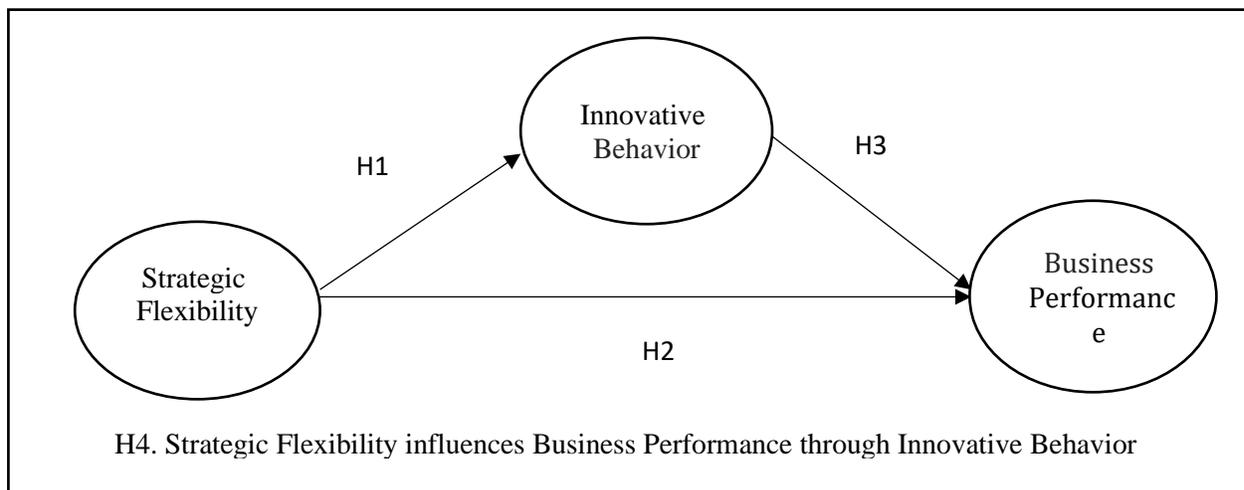


Figure 1. Research Conceptual Framework

3. Research Method

This study employs a quantitative approach utilizing a causal research design, chosen for its capacity to explore the cause-and-effect relationship between the independent and dependent variables (Sugiyono, 2018). The causal design is employed to investigate and analyze the impact of Strategic Flexibility and Innovative Behavior on Business Performance. The overarching objective of this research is to elucidate and examine the association between perceptions of Strategic Flexibility and Innovative Behavior on Business Performance. Methodologically, this study is categorized as explanatory, seeking to elucidate the causal relationship between variables through hypothesis testing. An empirical approach is employed to evaluate the hypothesis's validity. The research sample comprises top-level managers in SMEs in East Java, with 130 respondents selected through cluster random sampling to ensure diverse representation. Data collection is conducted via a questionnaire employing a Likert scale with five response options, ranging from strongly agree to strongly disagree (Sugiyono, 2018). Data analysis commences with validity and reliability assessments to ensure measurement instrument accuracy and consistency. Subsequently, classical assumption tests including normality, multicollinearity, and heteroscedasticity tests are conducted to assess the statistical model's suitability (Ghozali, 2021). Regression analysis serves as the primary statistical procedure to scrutinize the relationship between variables. Furthermore, a mediation analysis is performed to explicate how the independent variable influences the dependent variable through the mediating variable. Through meticulous hypothesis testing, this study endeavors to establish the causal relationship between the variables under investigation (Ghozali, 2021).

4. Result

4.1. Respondent Characteristics

According to the data presented in Table 1, a significant majority of participants in this study were male, comprising 76.3%, while approximately 23.7% were female. This gender disparity suggests a dominance of males, likely attributed to their potentially better access to resources, education, and leadership

positions, enabling them to effectively leverage strategic flexibility, innovative behavior, and business performance in SMEs. However, it's essential to note that this trend is not absolute, as various other factors also contribute to this relationship.

Regarding age demographics, the largest proportion of participants (30.8%) fell within the 17 to 34-year-old bracket, while approximately 40% were aged between 35 and 52 years. Individuals aged 35 to 52 may possess an advantage in strategic flexibility, innovative behavior, and business performance within SMEs due to their extensive professional experience and personal stability. This age group typically exhibits mature insights into market dynamics and business trends, along with a propensity for calculated risk-taking.

In terms of professional experience, the majority of respondents (63.3%) reported having between 1 and 10 years of work experience. This tenure range offers a competitive edge in strategic flexibility, innovative behavior, and business performance owing to a blend of substantial experience and a willingness to embrace novel ideas.

Regarding educational attainment, a significant majority of respondents (60.1%) had completed high school or attained education levels earlier than that. A high school diploma or equivalent qualification may confer advantages in strategic flexibility, innovative behavior, and business performance due to an individual's heightened creativity and adaptability. Despite potentially limited resource access, their determination can serve as an asset in accomplishing business objectives.

Table 1. Characteristics of Respondents

Description	N	%	Description	N	%	Description	N	%
Gender			Early Years			Education		
Man	99	76.3	<1 year	46	35.1	Graduated from high school or earlier	78	60.1
Woman	31	23.7	1-10 Years	82	63.3	Bachelor	40	30.4
Amount	130	100	>10 Years	2	1.6	Masters	8	6.5
Age			Amount	130	100	Doctor	4	3
17-34	40	30.8				Amount	130	100
35-52	52	40						
53>	13	10.2						
Amount	130							

Source: Data processed

4.2. Test Research Instruments

4.2.1 Validity Test Results

The outcomes of the validity assessment regarding the association between strategic flexibility and business performance, with innovative behavior acting as a mediator, indicate the sound quality of the measurement tools employed in this study. To summarize, the findings are as follows: All items pertaining to the constructs of strategic flexibility (X), innovative behavior (Y1), and business performance (Y2) are deemed valid, given that the Pearson correlation coefficient exceeds 0.361, and the significance level (Sig) falls below 0.05 (Ghozali, 2021). This signifies that each statement within the instrument exhibits a

statistically significant relationship with the respective concept under scrutiny, aligning with established criteria. Hence, it can be inferred that the instrument demonstrates validity and is suitable for utilization in research endeavors.

Table 2. Validity test results

Indicator	Pearson Correlation	Sig. (2-tailed)	Indicator	Pearson Correlation	Sig. (2-tailed)
FS_Financial Strength	0.687	0,000	IB_Award	0.602	0,000
FS_Availability of Human Resources	0.593	0,000	IB_Technology	0.694	0,000
FS_Adaptation	0.539	0,000	BP_Income	0.451	0,000
FS_Flexibility	0.655	0,000	BP_Net profit	0.465	0,000
FS_Innovation	0.768	0,000	BP_Growth	0.475	0,000
FS_Partnership	0.672	0,000	BP_Marginality	0.524	0,000
FS_Responsibility	0.642	0,000	BP_Market share	0.545	0,000
IB_Creativity	0.573	0,000	BP_Customer satisfaction	0.401	0,000
IB_Invention	0.456	0,000	BP_Operational Efficiency	0.617	0,000
IB_Initiative	0.416	0,000	BP_Employee Retention	0.640	0,000
IB_Collaboration	0.649	0,000	BP_Product Innovation	0.667	0,000
IB_Flexibility	0.692	0,000	BP_Return on Investment	0.669	0,000
IB_Leadership	0.534	0,000			

Source: Data processed

4.2.2. Results Reliability Test

The outcomes of the reliability examination reveal that all items related to the constructs of strategic flexibility (X), innovative behavior (Y1), and business performance (Y2) exhibit a Cronbach's alpha coefficient exceeding 0.60. This elevated Cronbach's alpha figure signifies a satisfactory level of internal consistency among the items within each variable, as depicted in the table. Consequently, it can be inferred that the statements incorporated in the instrument possess commendable reliability and are suitable for gauging the intended constructs. As stipulated by Malhotra (2004), an instrument is deemed reliable if its Cronbach's alpha value equals or surpasses 0.60. Hence, the outcomes of the validity and reliability

assessments affirm that the measurement instruments utilized in this study are of satisfactory quality, thereby instilling confidence in their capability to effectively capture the required data for the research.

Table 3. Reliability test results

Indicator	Cronbach's Alpha if Item Deleted	Indicator	Cronbach's Alpha if Item Deleted
FS_Financial Strength	0.853	IB_Award	0.853
FS_Availability of Human Resources	0.853	IB_Technology	0.855
FS_Adaptation	0.859	BP_Income	0.857
FS_Flexibility	0.854	BP_Net profit	0.853
FS_Innovation	0.851	BP_Growth	0.857
FS_Partnership	0.855	BP_Marginality	0.858
FS_Responsibility	0.857	BP_Market share	0.857
IB_Creativity	0.854	BP_Customer satisfaction	0.865
IB_Invention	0.855	BP_Operational Efficiency	0.857
IB_Initiative	0.862	BP_Employee Retention	0.856
IB_Collaboration	0.856	BP_Product Innovation	0.854
IB_Flexibility	0.856	BP_Return on Investment	0.854
IB_Leadership	0.856		

Source: Data processed

4.3. Classic Assumption Test Results

Classical assumption tests, encompassing normality, multicollinearity, and heteroscedasticity tests, have been conducted. As indicated by the results of the normality test delineated in Table 4, the Sig value stands at 0.200, exceeding 0.050, suggesting that the regression model conforms to a normal distribution. Consistent with Ghazali (2021), a Sig value > 0.05 indicates a normal distribution of the residual model.

Table 4. Normality Test Results One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residuals
N		130
Normal Parameters, b	Mean	0.0000000
	Std. Deviation	6.13579159
Most Extreme Differences	Absolute	0.048
	Positive	0.048
	Negative	-0.038
Statistical Tests		0.048
Asymp. Sig. (2-tailed)		0.200c,d

- Test distribution is Normal.
- Calculated from data.
- Lilliefors Significance Correction.
- This is a lower bound of the true significance.

Source: Data processed

During the multicollinearity assessment, strategic flexibility (X) and innovative behavior (Y1) exhibited a tolerance of 0.681 and a VIF value of 1.469, respectively, as presented in Table 5. No indications of multicollinearity were observed, meeting the criteria outlined by Ghazali (2021), where the tolerance should

exceed 0.100 and the VIF should be below 10.00. Thus, based on the outcomes of the classical assumption tests, it can be inferred that all prerequisites have been satisfied.

Table 5. Test Results Multicollinearity

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	13,717	2,344		5,852	0.000		
	STRATEGIC FLEXIBILITY	0.258	0.105	0.218	2,452	0.016	0.681	1,469
	INNOVATIVE BEHAVIOR	0.486	0.106	0.409	4,592	0.000	0.681	1,469

a. Dependent Variable: BUSINESS PERFORMANCE

Source: Data processed

The results of the heteroscedasticity test, examining the influence of strategic flexibility (X), innovative behavior (Y1), and business performance (Y2) on the residuals, indicate that strategic flexibility (X) has a Sig value of 0.287, while innovative behavior (Y1) yields a Sig value of 0.053, and business performance (Y2) registers a Sig value of 0.139, as detailed in Table 6. Per Ghozali (2021), when the Sig value exceeds 0.05, there is no substantial evidence of heteroscedasticity.

Table 6. Test Results Heteroscedasticity

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4,869	1,491		3,266	0.001
	STRATEGIC FLEXIBILITY	-0.065	0.061	-0.115	-1,069	0.287
	INNOVATIVE BEHAVIOR	0.162	0.065	0.285	1,506	0.053
	BUSINESS PERFORMANCE	-0.074	0.050	-0.156	-1,487	0.139

a. Dependent Variable: RES

Source: Data processed

4.4. Hypothesis Test Results

Tables 7 and 8 depict the outcomes of coefficient testing as described in regression equations (1) and (2), along with the specifics regarding the interrelations among variables in Table 7. The results demonstrate a significant positive impact of strategic flexibility on innovative behavior ($\beta = 0.561$, Sig = 0.000), confirming H1. Furthermore, Table 8 illustrates that strategic flexibility also positively influences business performance ($\beta = 0.258$, Sig = 0.016), supporting H2. Additionally, innovative behavior significantly affects business performance ($\beta = 0.486$, Sig = 0.000), validating H3.

The regression analysis results reveal that an increase in strategic flexibility significantly contributes to innovative behavior, and innovative behavior, in turn, impacts business performance. Table 8 further demonstrates the role of innovative behavior as a mediator in the association between strategic flexibility

and job performance. According to the criteria outlined by Hair et al. (2017), it can be inferred that in the context of the relationship between strategic flexibility and job performance, with innovative behavior serving as a partial mediator, these findings uphold hypothesis H4. Thus, these outcomes suggest that innovative behavior serves as a conduit linking strategic flexibility to business performance. The regression equation derived from Tables 7 and 8 can be formulated as follows:

- (1) Innovative behavior = 0.561 Strategic flexibility (1)
 (2) Job performance = 0.258 Strategic flexibility + 0.486 Innovative behavior(2)

Table 7. Regression Test Results on the Relationship between strategic flexibility (X) and innovative behavior (Y1)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11,532	1,670		6,906	0.000
	STRATEGIC FLEXIBILITY	0.561	0.072	0.565	7,752	0.000

a. Dependent Variable: INNOVATIVE BEHAVIOR

Source: Data processed

Table 8. Regression Test Results on the Relationship between strategic flexibility (X), innovative behavior (Y1), and business performance (Y2)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13,717	2,344		5,852	v000
	STRATEGIC FLEXIBILITY	0.258	0.105	0.218	2,452	0.016
	INNOVATIVE BEHAVIOR	0.486	0.106	0.409	4,592	0.000

a. Dependent Variable: BUSINESS PERFORMANCE

Source: Data processed

Table 9. Hypothesis Test Results

Hypothesis	Variable		t	Sig.	Decision	
H1	Strategic flexibility Innovative behavior	→	0.561	7,752	0,000	Significant
H2	Strategic flexibility Business performance	→	0.258	2,452	0.016	Significant
H3	Innovative behavior Business performance	→	0.486	4,592	0.000	Significant

Source: Data processed

4.5. Coefficient of Determination Test Results

The outcomes of the coefficient of determination examination reveal that the constructed model effectively elucidates the association between the independent variable, strategic flexibility (X), and the dependent variable,

innovative behavior (Y1). The Adjusted R Square value for innovative behavior (Y1) in Table 10 stands at 0.314, signifying that the model accounts for approximately 31.4% of the variance in the relationship between strategic flexibility (X) and innovative behavior (Y1). Nevertheless, it is crucial to acknowledge that additional factors omitted from the model might impact the remaining variance.

Table 10. Results of Testing the Coefficient of Determination on the Relationship between strategic flexibility (X) and innovative behavior (Y1)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.565a	0.319	0.314	5,162

a. Predictors: (Constant), STRATEGIC FLEXIBILITY

Source: Data processed

The findings from the Coefficient of Determination test concerning the relationship among strategic flexibility (X), innovative behavior (Y1), and business performance (Y2), as presented in Table 11, reveal an Adjusted R Square value of 0.305. This value signifies that the model can elucidate approximately 30.5% of the variance in business performance (Y2). Thus, the association between strategic flexibility (X) and innovative behavior (Y1) with business performance (Y2) can be accounted for by 30.5%, leaving approximately 69.5% of the variance unexplained. These unaccounted-for factors suggest the presence of additional variables not explored in this study that may influence business performance (Y2). Consequently, further research is warranted to comprehend these additional factors and their broader impact on business performance (Y2).

Table 10. Results of testing the coefficient of determination on the relationship between strategic flexibility (X), innovative behavior (Y1), and business performance (Y2)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.562a	0.315	0.305	6,184

a. Predictors: (Constant), INNOVATIVE BEHAVIOR , STRATEGIC FLEXIBILITY

Source: Data processed

5. DISCUSSION

5.1. Influence Strategic flexibility to Innovative behavior

The regression analysis results demonstrate a notable positive correlation between strategic flexibility and innovative behavior, characterized by a coefficient ($\beta = 0.561$, $\text{Sig} = 0.000$) below the significance threshold ($\alpha = 0.05$). These findings offer empirical validation for the impact of strategic flexibility on innovative behavior within SMEs. They suggest that higher levels of strategic flexibility correspond to increased innovative behavior, implying that enhancing strategic flexibility effectively fosters innovation. Furthermore, these outcomes affirm hypothesis H1, which posits a favorable influence of strategic flexibility on innovative behavior in SMEs. This empirical evidence underscores the pivotal role of strategic flexibility in nurturing innovation within organizational settings, particularly in SMEs.

These findings contribute to a deeper understanding of the intricate relationship between strategic flexibility and innovative behavior, providing tangible support grounded in empirical data. They also validate theories emphasizing the crucial role of strategic flexibility in fostering innovation within organizations, highlighting the importance of organizational adaptability and flexibility in navigating environmental dynamics. Research by Garrido-Moreno et al. (2024) underscores the significance of innovation and

organizational resilience in enhancing business performance, framing organizations as entities requiring adaptation to environmental shifts. Conversely, studies such as those by Jutidharabongse et al. (2024) delve into the impact of management control systems on dynamic capabilities and sustainable performance, emphasizing management's relevance in contemporary organizational contexts.

Sheng & An (2024) highlight the crucial role of adaptability and flexibility in addressing environmental uncertainties, while Shaik et al. (2023) and Su et al. (2023) underscore the role of strategic flexibility in responding to market pressures and business dynamism. Additionally, Wu et al. (2023) and Daradkeh & Mansoor (2023) accentuate the significance of flexibility and adaptability in sustaining long-term performance, particularly among SMEs facing unique challenges.

Informed by these empirical insights, our understanding of the interplay between strategic flexibility and innovative behavior becomes more nuanced, empowering researchers and practitioners to explore the underlying mechanisms and examine other influencers such as organizational culture or leadership. Daradkeh & Mansoor (2023) and Meena et al. (2024) shed light on the synergy between strategic flexibility and innovative behavior in organizational expansion and new product development, providing a robust theoretical framework for innovation management, especially in SMEs.

Kamasak & Alkan (2024) underscore leadership support and strategic flexibility's role in implementing eco-friendly management practices, while Bellis et al. (2024) identify specific measures facilitating workplace flexibility for employees. Rodriguez-Rebés et al. (2024) highlight the significance of leaner and more adaptable organizational structures in SMEs. Consequently, these findings not only affirm the relevance of strategic flexibility in understanding innovative behavior but also deepen our grasp of this intricate relationship within SME contexts.

For stakeholders in SMEs, these findings offer invaluable insights. They can leverage this knowledge to enhance strategic flexibility within their organizations, aiming to bolster levels of innovative behavior. This may involve devising policies and initiatives fostering adaptability and innovation in the workplace, alongside investments in employee training to nurture creativity. Strategically, integrating strategic flexibility into organizational planning and decision-making processes is imperative. SMEs must view strategic flexibility as a linchpin in their strategy to augment innovation and competitiveness. By fortifying their strategic flexibility, organizations can better navigate environmental shifts and capitalize on emerging opportunities, thereby strengthening their market positioning.

5.2. Influence Strategic flexibility on Business performance

The research findings regarding the impact of strategic flexibility on business performance indicate a regression coefficient of 0.258, with a significance level (p-value) of 0.016. Given that the p-value of 0.016 is lower than the significance level ($\alpha=0.05$), there is empirical support for the notion that strategic flexibility influences business performance in SMEs. This implies that enhanced strategic flexibility correlates with increased business performance, thereby confirming the positive influence of strategic flexibility on business performance (H2 is supported), consistent with hypothesis H2. These findings contribute significantly to organizational theory development, particularly concerning strategic flexibility and business performance in SME contexts.

The implications of these findings reinforce the argument that strategic flexibility plays a crucial role in enhancing business performance amid dynamic business environments. Furthermore, they underscore that strategic flexibility is not only pertinent to large organizations but is also vital for small and medium-sized

enterprises (SMEs). Wided's (2024) study underscores the role of Information Technology in bolstering the strategic flexibility and resilience of SMEs, demonstrating how ICT influences organizational resilience, potentially through applications such as big data analysis in high-value firms. Kamasak & Alkan's (2024) research stresses the significance of leadership support and strategic flexibility in implementing environmentally sustainable management practices in SMEs, emphasizing leadership's role in facilitating strategic flexibility and resource allocation. Navarro-García et al. (2024) highlight strategic flexibility's importance for exporting firms in coping with environmental changes and enhancing performance.

These findings suggest that swift and effective adaptation to evolving business strategies and tactics is pivotal for the survival and growth of SMEs in dynamic markets. Wided's (2024) study underscores the importance of internal flexibility for adaptation and resilience. Aabo et al. (2024) emphasize the necessity for companies to proactively and responsively pursue strategic flexibility. Additionally, Nguyen et al. (2024) and Qiao et al. (2024) highlight SMEs' need for greater flexibility in strategic decision-making compared to larger firms. These insights enrich the conceptual framework of understanding the relationship between strategic flexibility and business performance in SMEs and can contribute to validating existing theories.

Meena et al. (2024) explore the relationship between coopetition and business performance, while Agag et al. (2024) validate measurement models. These findings can encourage the development of more sophisticated and valid research methodologies. Bashir (2023) provides insights into research methodologies guiding data collection and hypothesis validation. Daradkeh & Mansoor (2023) demonstrate that assessing causal relationships can be achieved using general methods.

Practically, these findings offer valuable insights for SME stakeholders, enabling them to enhance strategic flexibility within their organizations, adapt to changing business environments, and maintain competitiveness in dynamic markets. Strategically, integrating strategic flexibility into business planning and strategy formulation is key to enhancing business performance and competitiveness. Thus, these findings not only contribute to theoretical advancements but also offer practical insights to assist SMEs in addressing challenges in dynamic markets.

5.3. Influence innovative behavior on Business performance

The research outcomes concerning the influence of innovative behavior on business performance indicate a regression coefficient of 0.486, with a significance level (p-value) of 0.000. Given that the p-value of 0.000 is below the significance level ($\alpha=0.05$), there is empirical evidence demonstrating the impact of innovative behavior on business performance in SMEs. This suggests that higher levels of innovative behavior correspond to increased business performance among SMEs. Therefore, it can be inferred that innovative behavior positively affects business performance (H3 is affirmed), aligning with hypothesis H3. These empirical findings significantly contribute to advancing organizational theory, particularly concerning innovative behavior and business performance in SME contexts.

The implications of these findings reinforce the notion that innovative behavior is not solely pertinent to large organizations but also holds significance in SMEs. This offers fresh insights into how innovative behavior shapes venture performance across different organizational types. Wu's (2024) study is a notable addition that enhances our comprehension, highlighting the importance of researching innovative behavior within the SME context. Research by Garrido-Moreno et al. (2024) bolsters this perspective, emphasizing that corporate resilience extends beyond performance enhancement to encompass survival during challenging circumstances such as pandemics. Liu & Zhao's (2024) and Sarfo et al.'s (2024) studies provide

an additional angle, emphasizing the role of industry competition and exploratory innovation in enhancing business performance. These findings contribute to the diversification of theoretical approaches in understanding innovative behavior in SMEs.

Delet et al.'s (2024) research underscores the significance of an interdisciplinary approach in achieving success, while Liu et al.'s (2024) study highlights the pioneering orientation in SMEs. Thus, the theoretical implications of these findings not only expand existing conceptual frameworks but also stimulate new perspectives on variables relevant to SME characteristics and the dynamics of innovative behavior. Studies by Aabo et al. (2024), Wided (2024), and Mahdi et al. (2024) offer a wide array of theoretical implications, emphasizing the importance of strategic adaptation, information quality, and leadership's role in enhancing business performance in SMEs. This broadens our understanding of the role of innovative behavior in attaining business objectives.

For stakeholders in SMEs, these findings furnish valuable practical insights. They can leverage this knowledge to cultivate an innovation culture that fosters experimentation and creativity, invest in employee training, and cultivate a collaborative work environment conducive to idea-sharing. Strategically, these findings underscore the importance of integrating innovative behavior into business planning and strategy within SMEs. By nurturing an innovation culture and instituting incentives that promote creativity, organizations can establish an environment conducive to long-term growth and business success. Consequently, these findings not only contribute valuable theoretical insights but also offer practical and strategic guidance for stakeholders aiming to foster innovation and achieve their business objectives.

5.4. Role Innovative Behavior in Mediating Influence Strategic Flexibility Regarding Business Performance

The regression analysis results indicate a significant contribution of increased strategic flexibility to innovative behavior, with innovative behavior also impacting business performance in SMEs. The role of innovative behavior as a mediator between strategic flexibility and business performance is evident in Table 8. Based on criteria outlined by Hair et al. (2017), it is empirically demonstrated that innovative behavior mediates the influence of strategic flexibility on business performance in SMEs. Hence, it can be inferred that within the context of the relationship between strategic flexibility and business performance in SMEs, with innovative behavior as a partial mediating factor, these findings corroborate hypothesis H4. Consequently, these results affirm that innovative behavior serves as a connecting link, bridging strategic flexibility with business performance.

These findings make a substantial contribution to organizational theory development, particularly in examining the interplay among strategic flexibility, innovative behavior, and business performance, especially within SMEs. The implications underscore the importance of considering mediating factors to comprehend how strategic flexibility influences venture performance, enhancing understanding of the intricate relationships between these variables in organizational settings. This signifies a pivotal advancement in organizational theory by highlighting the significance of acknowledging the complex interrelations among strategic flexibility, innovative behavior, and venture performance. These theoretical implications encourage the formulation of more comprehensive and holistic frameworks to grasp organizational dynamics, particularly within SMEs.

Studies like Wided (2024) demonstrate that a comparative approach offers additional insights into understanding the complexity of these relationships. Meena et al. (2024) discuss the role of cooperation, strategy, and business performance in the digital transformation era, while considering factors acting as

mediators or moderators in these relationships. Garrido-Moreno et al. (2024) underscore the importance of mediating factors in linking strategic flexibility with business performance through innovative behavior, providing deeper insights into the mechanisms behind the influence of strategic flexibility on venture performance, thus offering valuable insights for the future development of organizational theory.

These findings unveil the mediating role of organizations through factor analysis on each research item. Kusuma et al. (2024) demonstrate the complexity of relationships between observed variables, particularly in the SME context. Wang et al. (2024) integrate corporate innovation behavior into the "reason" dimension of the WSR methodology, while Rialti & Filieri (2024) emphasize the importance of applying broader organizational theory to the SME context. By considering these aspects, the theoretical implications of these findings not only enrich existing organizational theory but also foster more advanced thinking in understanding organizational dynamics, especially among SMEs.

For SME stakeholders, these findings hold significant practical implications. They can utilize this information to devise more effective strategies and policies to enhance business performance. This may involve developing training programs to bolster employees' innovative skills, establishing cross-functional work teams to foster collaboration, and implementing reward systems that incentivize change and experimentation. Strategically, these findings underscore the importance of recognizing innovative behavior's role as a mediator between strategic flexibility and business performance. Organizations need to view innovative behavior as an integral component of their business strategy, rather than a mere add-on. By acknowledging that innovative behavior can serve as a conduit between strategic flexibility and achieving business objectives, organizations can craft more holistic and sustainable strategies to bolster competitiveness and long-term growth. Hence, these findings not only yield profound theoretical implications for understanding the relationship between strategic flexibility, innovative behavior, and venture performance but also offer pragmatic insights for enhancing organizational effectiveness and success.

6. Conclusion

The implications drawn from these findings hold immense significance for the advancement and fortification of SMEs. Empirical evidence underscores that strategic flexibility exerts a substantial positive influence on innovative behavior within SMEs. This underscores that SMEs' capacity to swiftly and effectively adapt to environmental shifts can foster the emergence of innovative behavior, thereby facilitating business growth and progress. Furthermore, the results also unveil that innovative behavior serves as a mediator in the relationship between strategic flexibility and business performance in SMEs. This affirms that through innovative initiatives, SMEs can translate strategic flexibility into tangible outcomes, such as enhanced business performance. Thus, innovative behavior emerges as a pivotal link connecting flexible strategies to the attainment of business objectives.

Drawing from these conclusions, several recommendations can be proposed for SMEs: **Emphasis on Enhancing Strategic Flexibility:** SMEs should prioritize the enhancement of their capacity to adapt and respond to environmental changes with greater flexibility and agility. This can be achieved through the development of systems and processes that enable swift responses to market dynamics and technological advancements. **Cultivation of Innovative Behavior:** SMEs ought to foster a culture of innovation across all organizational levels, fostering collaboration, experimentation, and the generation of novel ideas. This can be realized through employee training initiatives, incentivizing innovative ideas, and fostering a work environment conducive to creativity. **Utilization of Innovative Behavior to Drive Performance:** SMEs need

to acknowledge the pivotal role of innovative behavior in attaining their business objectives. By integrating innovative practices into their business strategies, SMEs can cultivate a competitive edge and elevate their business performance.

By implementing these recommendations, it is anticipated that SMEs can leverage these findings to bolster their competitiveness and sustainability, enabling them to navigate the intricate and dynamic challenges prevalent in today's market landscape.

Reference

- Aabo, T., Pantzalis, C., Park, J. C., Trigeorgis, L., & Wulff, J. N. (2024). CEO personality traits, strategic flexibility, and firm dynamics. *Journal of Corporate Finance*, *84*, 102524. <https://doi.org/10.1016/j.jcorpfin.2023.102524>
- Abbas, J., Balsalobre-Lorente, D., Amjid, M. A., Al-Sulaiti, K., Al-Sulaiti, I., & Aldereai, O. (2024). Financial innovation and digitalization promote business growth: The interplay of green technology innovation, product market competition and firm performance. *Innovation and Green Development*, *3*(1), 100111. <https://doi.org/10.1016/j.igd.2023.100111>
- Acar, O. A., Tarakci, M., & Van Knippenberg, D. (2019). Creativity and innovation under constraints: A cross-disciplinary integrative review. *Journal of Management*, *45*(1), 96-121. <https://doi.org/10.1177/014920631880583>
- Agag, G., Shehawy, Y. M., Almoraiash, A., Eid, R., Lababdi, H. C., Labben, T. G., & Abdo, S. S. (2024). Understanding the relationship between marketing analytics, customer agility, and customer satisfaction: A longitudinal perspective. *Journal of Retailing and Consumer Services*, *77*, 103663. <https://doi.org/10.1016/j.jretconser.2023.103663>
- Aharoni, Y. (2024). The Role of Small Firms in an Interdependent World. In *Standing on the Shoulders of International Business Giants* (pp. 237-261). <https://doi.org/10.1142/13708>
- Al-Ghifari, M. I. (2014). *Pengaruh Pengungkapan Corporate Social Responsibility Terhadap Profitabilitas Perusahaan Rokok Yang Terdaftar Di Bursa Efek Indonesia (BEI)* (Doctoral dissertation, Universitas Widyatama).
- Al-Hakim, L. A., & Hassan, S. (2016). Core requirements of knowledge management implementation, innovation and organizational performance. *Journal of Business Economics and Management*, *17*(1), 109-124. <https://doi.org/10.3846/16111699.2012.720597>
- Alshammari, A. A., Rasli, A., Alnajem, M., & Arshad, A. S. (2014). An exploratory study on the relationship between organizational innovation and performance of non-profit organizations in Saudi Arabia. *Procedia-Social and Behavioral Sciences*, *129*, 250-256. <https://doi.org/10.1016/j.sbspro.2014.03.674>
- Arsu, Ş. U. (2024). for Sustainable Human Resource Management. *Handbook of Artificial Intelligence Applications for Industrial Sustainability: Concepts and Practical Examples*, 92. <https://doi.org/10.1201/9781003348351-7>
- Bashir, M. (2023). The influence of strategic flexibility on SME performance: is business model innovation the missing link?. *International Journal of Innovation Science*, *15*(5), 799-816. <https://doi.org/10.1108/IJIS-06-2021-0110>
- Bellis, P., Cunial, M., & Trabucchi, D. (2024). Mastering hybrid worlds through digital leadership: The role of agility in fostering innovation. *Business Horizons*. <https://doi.org/10.1016/j.bushor.2024.04.002>

- Beraha, A., Bingol, D., Ozkan-Canbolat, E., & Szczygiel, N. (2018). The effect of strategic flexibility configurations on product innovation. *European Journal of Management and Business Economics*, 27(2), 129-140. <https://doi.org/10.1108/EJMBE-02-2018-0028>
- Bergman, J. P., Jantunen, A., & Tarkiainen, A. (2015). Managerial cognition and dominant logic in innovation management: empirical study in media industry. *International Journal of Business Innovation and Research*, 9(3), 253-271. <https://doi.org/10.1504/IJBIR.2015.069136>
- Bernardo, M. (2014). Integration of management systems as an innovation: a proposal for a new model. *Journal of Cleaner Production*, 82, 132-142. <https://doi.org/10.1016/j.jclepro.2014.06.089>
- Brozovic, D. (2018). Strategic flexibility: A review of the literature. *International Journal of Management Reviews*, 20(1), 3-31. <https://doi.org/10.1111/ijmr.12111>
- Cooper, R. G. (2024). The AI transformation of product innovation. *Industrial Marketing Management*, 119, 62-74. <https://doi.org/10.1016/j.indmarman.2024.03.008>
- Damanpour, F. (1991). Organizational innovation: A meta-analysis of effects of determinants and moderators. *Academy of management journal*, 34(3), 555-590. <https://doi.org/10.5465/256406>
- Daradkeh, M., & Mansoor, W. (2023). The impact of network orientation and entrepreneurial orientation on startup innovation and performance in emerging economies: The moderating role of strategic flexibility. *Journal of Open Innovation: Technology, Market, and Complexity*, 9(1), 100004. <https://doi.org/10.1016/j.joitmc.2023.02.001>
- Del Gesso, C., Lodhi, R. N., Asif, M., & Cobanoglu, C. (2024). A bibliometric analysis of intellectual capital research in the hospitality and tourism business setting. *International Journal of Hospitality Management*, 119, 103713. <https://doi.org/10.1016/j.ijhm.2024.103713>
- Esmailzadeh, S., Ranjbar, M. S., & Jandaghi, G. (2024). Toward a new conceptual framework of business strategies to deal with environmental uncertainties: insights from a systematic literature review and bibliography. *Management Review Quarterly*, 1-30. <https://doi.org/10.1016/j.jbusres.2007.06.021>
- Fawehinmi, O., Aigbogun, O., & Tanveer, M. I. (2024). The Role of Industrial Revolution 5.0 in Actualizing the Effectiveness of Green Human Resource Management. In *Green Human Resource Management: A View from Global South Countries* (pp. 291-312). Singapore: Springer Nature. <https://doi.org/10.1108/shr-04-2019-0024>.
- Garrido-Moreno, A., Martín-Rojas, R., & García-Morales, V. J. (2024). The key role of innovation and organizational resilience in improving business performance: A mixed-methods approach. *International Journal of Information Management*, 77, 102777. <https://doi.org/10.1016/j.ijinfomgt.2024.102777>
- Ghozali, Imam. 2021. *Partial Least Squares Konsep, Teknik dan Aplikasi Menggunakan Program SmartPLS 3.2.9 Ed. Ke-3*. Badan Penerbit Universitas Diponegoro, Semarang.
- Hair Jr, J.F., Hult, G.T.M., Ringle, C., Sarstedt, M., 2017. A primer on partial least squares structural equation modeling (PLS-SEM). Sage publications. https://doi.org/10.1007/978-3-319-57413-4_15
- Hensellek, S., Kleine-Stegemann, L., & Kollmann, T. (2023). Entrepreneurial leadership, strategic flexibility, and venture performance: Does founders' span of control matter?. *Journal of Business Research*, 157, 113544. <https://doi.org/10.1016/j.jbusres.2022.113544>.
- Jaskyte, K. (2011). Predictors of administrative and technological innovations in nonprofit organizations. *Public Administration Review*, 71(1), 77-86. <https://doi.org/10.1111/j.1540-6210.2010.02308.x>
- Jutidharabongse, J., Imjai, N., Pantaruk, S., Surbakti, L. P., & Aujirapongpan, S. (2024). Exploring the effect of management control systems on dynamic capabilities and sustainability performance: The

- role of open innovation strategy amidst COVID-19. *Journal of Open Innovation: Technology, Market, and Complexity*, 10(1), 100224. <https://doi.org/10.1016/j.joitmc.2024.100224>
- Kamasak, R., & Alkan, D. P. (2024). The More Supportive, the Better, the More Adaptive, the Best: Leadership Support, Strategic Flexibility and Green Management Practice Adoption in SMEs. In *Transition to the Circular Economy Model: The Case of Turkey* (pp. 95-104). https://doi.org/10.1007/978-3-031-52700-5_8
- Kortmann, S., Gelhard, C., Zimmermann, C., & Piller, F. T. (2014). Linking strategic flexibility and operational efficiency: The mediating role of ambidextrous operational capabilities. *Journal of Operations Management*, 32(7-8), 475-490. <https://doi.org/10.1016/j.jom.2014.09.007>
- Kusuma, A. R., Syarif, R., Sukmawati, A., & Ekananta, A. (2024). Factors influencing the digital transformation of sales organizations in Indonesia. *Heliyon*, 10(5). <https://doi.org/10.1016/j.heliyon.2024.e27017>
- Larios-Francia, R. P., & Ferasso, M. (2023). The relationship between innovation and performance in MSMEs: The case of the wearing apparel sector in emerging countries. *Journal of Open Innovation: Technology, Market, and Complexity*, 9(1), 100018. <https://doi.org/10.1016/j.joitmc.2023.100018>
- Liu, G., Chen, Y., & Ko, W. W. (2024). The influence of marketing exploitation and exploration on business-to-business small and medium-sized enterprises' pioneering orientation. *Industrial Marketing Management*, 117, 131-147. <https://doi.org/10.1016/j.indmarman.2023.12.012>
- Lu, X., & Wang, J. (2024). Is innovation strategy a catalyst to solve social problems? The impact of R&D and non-R&D innovation strategies on the performance of social innovation-oriented firms. *Technological Forecasting and Social Change*, 199, 123020. <https://doi.org/10.1016/j.techfore.2023.123020>
- Mahdi, A., Crick, D., Crick, J. M., Lamine, W., & Spence, M. (2024). Entrepreneurial marketing practices and rural wine producers' performance: The moderating role of competitive intensity in an immediate post crisis period. *Journal of Rural Studies*, 108, 103277. <https://doi.org/10.1016/j.jrurstud.2024.103277>
- Malhotra, N. K. 2004. *Marketing Research. An Applied Orientation*. Pearson Education International. Prentice Hall. New Jersey.
- Meena, A., Dhir, S., & Sushil, S. (2024). Coopetition, strategy, and business performance in the era of digital transformation using a multi-method approach: Some research implications for strategy and operations management. *International Journal of Production Economics*, 270, 109068. <https://doi.org/10.1016/j.ijpe.2023.109068>
- Mia, L., & Clarke, B. (1999). Market competition, management accounting systems and business unit performance. *Management Accounting Research*, 10(2), 137-158. <https://doi.org/10.1006/mare.1998.0097>
- Mukherjee, S., Nagariya, R., Mathiyazhagan, K., Baral, M. M., Pavithra, M. R., & Appolloni, A. (2024). Artificial intelligence-based reverse logistics for improving circular economy performance: a developing country perspective. *The International Journal of Logistics Management*. <https://doi.org/10.1108/IJLM-03-2023-0102>
- Navarro-García, A., Ledesma-Chaves, P., Gil-Cordero, E., & De-Juan-Vigaray, M. D. (2024). Intangible resources, static and dynamic capabilities and perceived competitive advantage in exporting firms. A PLS-SEM/fsQCA approach. *Technological Forecasting and Social Change*, 198, 123001. <https://doi.org/10.1016/j.techfore.2023.123001>
- Nguyen, C. Q., Nguyen, A. M. T., & Tran, P. (2024). Assessing the critical determinants of cross-border E-commerce adoption intention in Vietnamese small and medium-sized enterprises: PLS-SEM

- algorithm approach. *Journal of Open Innovation: Technology, Market, and Complexity*, 10(1), 100257. <https://doi.org/10.1016/j.joitmc.2024.100257>
- Pearlson, K. E., Saunders, C. S., & Galletta, D. F. (2024). *Managing and using information systems: A strategic approach*. John Wiley & Sons.
- Prajogo, D. I. (2016). The strategic fit between innovation strategies and business environment in delivering business performance. *International journal of production Economics*, 171, 241-249. <https://doi.org/10.1016/j.ijpe.2015.07.037>
- Purnama, C. (2014). Improved performance through empowerment of small industry. *Journal of Social Economics Research*, 1(4), 72-86.
- Rialti, R., & Filieri, R. (2024). Leaders, let's get agile! Observing agile leadership in successful digital transformation projects. *Business Horizons*. <https://doi.org/10.1016/j.bushor.2024.04.003>
- Rodríguez-Rebés, L., Ibar-Alonso, R., Gómez, L. M. R., & Navío-Marco, J. (2024). The use and drivers of organisational eco-innovation in European SMEs. *Research in International Business and Finance*, 70, 102297. <https://doi.org/10.1016/j.ribaf.2024.102297>
- Sarfo, C., Zhang, J. A., O'Kane, C., & O'Kane, P. (2024). Perceived value of microfinance and SME performance: The role of exploratory innovation. *International Journal of Innovation Studies*, 8(2), 172-185. <https://doi.org/10.1016/j.ijis.2024.02.003>
- Seow, A. N., Choong, Y. O., Low, M. P., Ismail, N. H., & Choong, C. K. (2024). Building tourism SMEs' business resilience through adaptive capability, supply chain collaboration and strategic human resource. *Journal of Contingencies and Crisis Management*, 32(2), e12564. <https://doi.org/10.1111/1468-5973.12564>
- Shaik, A. S., Alshibani, S. M., Mishra, S., Papa, A., & Cuomo, M. T. (2023). Does learning from innovation failure enhance innovation performance? A quantitative investigation of small businesses. *Technovation*, 127, 102818. <https://doi.org/10.1016/j.technovation.2023.102818>
- Sheng, X., & An, Y. (2024). The nonlinear impact of financial flexibility on corporate sustainability: Empirical evidence from the Chinese manufacturing industry. *Heliyon*. <https://doi.org/10.1016/j.heliyon.2024.e27825>
- Somwethee, P., Aujirapongpan, S., & Ru-Zhuc, J. (2023). The influence of entrepreneurial capability and innovation capability on sustainable organization performance: Evidence of community enterprise in Thailand. *Journal of Open Innovation: Technology, Market, and Complexity*, 9(2), 100082. <https://doi.org/10.1016/j.joitmc.2023.100082>
- Su, J., Zhang, Y., & Wu, X. (2023). How market pressures and organizational readiness drive digital marketing adoption strategies' evolution in small and medium enterprises. *Technological Forecasting and Social Change*, 193, 122655. <https://doi.org/10.1016/j.techfore.2023.122655>
- Sugiono, A., Rahayu, A., Wibowo, L., & Hurriyati, R. (2024). Developing models of environment uncertainty, incoterms on strategic alliance and competitive advantage. *Uncertain Supply Chain Management*, 12(2), 1083-1096. <https://doi.org/10.5267/j.uscm.2023.12.001>
- Sugiyono. (2017). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung : Alfabeta, CV.
- Uzkurt, C., Ekmekcioglu, E. B., & Ceyhan, S. (2024). Business ties, adaptive capability and technological turbulence: implications for SMEs' performance in Turkey. *Journal of Business & Industrial Marketing*, 39(3), 568-580. <https://doi.org/10.1108/JBIM-01-2023-0049>
- Wang, H., & Chen, N. (2024). An empirical study of executive research backgrounds on enterprise innovation-the moderator of internal and external institutional environments on physics-reason-

- human methodology. *International Review of Economics & Finance*, 93, 140-151. Wang, H., & Chen, N. (2024). <https://doi.org/10.1016/j.iref.2024.03.076>.
- Wided, R. (2024). The Role of Information Technology in Strengthening Strategic Flexibility and Organisational Resilience of Small Medium Enterprises Post COVID-19. *Journal of Information & Knowledge Management*, 2450001. <https://doi.org/10.1142/S0219649224500011>
- Wu, C. W., Botella-Carrubi, D., & Blanco-González-Tejero, C. (2024). The empirical study of digital marketing strategy and performance in small and medium-sized enterprises (SMEs). *Technological Forecasting and Social Change*, 200, 123142. <https://doi.org/10.1016/j.techfore.2023.123142>
- Wu, Q. (2024). Power play in carbon trading market: How status of executives with R&D background incentives companies' low-carbon innovation. *Energy Policy*, 188, 114049. <https://doi.org/10.1016/j.enpol.2024.114049>
- Xie, P., Xu, Y., Tan, X., & Tan, Q. (2023). How does environmental policy stringency influence green innovation for environmental managements?. *Journal of Environmental Management*, 338, 117766. <https://doi.org/10.1016/j.jenvman.2023.117766>
- Yang, M., Al Mamun, A., & Salameh, A. A. (2023). Leadership, capability and performance: A study among private higher education institutions in Indonesia. *Heliyon*, 9(1). <https://doi.org/10.1016/j.heliyon.2023.e13026>
- Yulastuti, I. A. N., Utama, M. S., Marhaeni, A. A. I. N., & Yuliarmi, N. N. (2024). Family Welfare of Micro, Small, and Medium Entrepreneurs: A Literature Study Review of Economics. *Journal of The Community Development in Asia*, 7(1), 105-120. <https://doi.org/10.32535/jcda.v7i1.2576>