



Assessing the Mediating Role of Competitive Advantage: The Influence of Innovation Capabilities and Strategic Flexibility on Firm Performance in East Java's F&B Industry Post COVID-19

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Abstract: This study investigates the mediating role of competitive advantage in the innovation capability and strategic flexibility-firm performance link, in regard to the food and beverage SMEs of East Java, post-COVID-19. This research will seek to explain how these two factors contribute to firm performance by having competitive advantage as a mediating variable. Data were collected from 107 respondents who underwent quantitative analysis. The results showed that innovation capability significantly and directly affects competitive advantage and firm performance, while strategic flexibility affects firm performance only significantly through the mediation of competitive advantage, noting its indirect role. Again, this research points to the enhancement of innovation capabilities as an important way to sustain competitive advantages; hence, a recommendation goes to SMEs in East Java for strategizing to become adaptable. The findings form a helpful indication for the SME managers on how to develop long-term performance in the dynamic business environment.

Keyword: Innovation Capabilities, Strategic Flexibility, Competitive Advantage, Firm Performance, East Java SMEs.

INTRODUCTION

SMEs are considered the key influencing factor for a country's total economic productivity (Anwar et al., 2018). Out of all the SME industries, the food and beverage industry plays a core part in the economy, and it is also one of the biggest contributors to SMEs in Indonesia (Tumiwa et al., 2023). From From (Josua Pardede, 2023) we can see that the food and beverage industry recorded a 5.33% year-on-year growth, which is above the manufacturing industry which experienced around 4.43% year-on-year growth during the Q1 period of 2023. Compared to the larger industrial sector, this data demonstrates the Food and Beverage industry's impressive performance. Furthermore, the overall GDP has a 5.03% year-on-year growth.

East Java is one of the major provinces in Indonesia. As one of the most populated provinces in Indonesia with over 41 million lives in 2023 (Jumlah Penduduk Menurut Jenis Kelamin Dan Kabupaten/Kota Provinsi Jawa Timur (Jiwa), 2021-2023, 2024), is one of the most lucrative areas in Indonesia's food and beverage industry. The food and beverage industry has come face to face with many challenges during the COVID-19 pandemic (Chowdhury et al., 2022). This pandemic has changed the traditional business model that has been developed for centuries. This has let many food and beverage businesses re-evaluate their existing business model on how to gain a competitive advantage to have exceptional firm performance. Although strategic adaptability and innovation capabilities are known to provide a competitive advantage and, therefore, improved company performance (Gyedu et al., 2021) the mediating role of innovation capabilities and strategic flexibility in the context of the post-pandemic era has been unexplored. There is also a steady rise of online applications that have dominated Indonesia's food and beverage industry (Hidayah et al., 2021), which has been a key response to the changing consumer behavior. At this critical time where digital transformation coexists with post-pandemic recovery, it is expected that the survival of East Java's food and beverage SMEs is balanced against the race to understand how to leverage innovation capability and strategic flexibility in such a way as to thrive in a business landscape that has radically changed. Therefore, this research wants to explore further the contribution of innovation capabilities and strategic flexibility to competitive advantage and firm performance in the context of East Java food and beverage businesses, particularly in the post-COVID-19 era with the steady increase in usage of online apps.

Teece (2017) emphasizes the need to analyze and understand an organization's capabilities, which includes its ability to innovate, close performance gaps, and improve competitiveness. Focused strategic management can help develop necessary and effective capabilities to achieve goals. In fact, research indicates that a company's performance and its capacity for innovation are positively correlated. (Jalil et al., 2022; Valdez-Juárez et al., 2023). However, a thorough grasp of the connection between innovation capacity and company success is only provided by a small amount of empirical evidence. (Expósito & Sanchis-Llopis, 2019). When considering emerging nations like Indonesia, the disparity is much more apparent. (Sahoo 2019).

Innovation capabilities are an important asset a company has since they are the abilities and insights necessary to improve current technology and create new technology (Guan & Ma, 2003). When developed properly, these assets can lead to better firm performance. Although Teece (2017) highlights the significance of innovation capacities for company success, research on developing nations remains scarce (Zuñiga-Collazos et al., 2020). It is also more lacking in the SME context (Quintero Sepúlveda & Zúñiga Collazos, 2023).

A negative correlation between these two constructs has been found in some empirical studies, despite the theoretical support (Kafetzopoulos et al., 2023) for the positive impact of strategic flexibility on firm performance. This suggests that the relationship is more complex than previously suggested (Nadkarni & Herrmann, 2010). To bridge this research gap, a mediator of competitive advantage is needed. Businesses may gain a competitive edge by using innovation skills to create new goods, services, or procedures that set them apart. Firms with a good innovation capability may be able to develop competitive advantages, which induce better firm performance. For strategic flexibility, a true test of a company's effectiveness is how the company uses these capabilities to obtain competitive advantage

This study's participants are limited to the food and beverage industry in East Java. The research is done using Google Forms and will use a quantitative analysis method. The researcher will only focus on the four variables: strategic flexibility and innovation capabilities as an independent variable, competitive advantage as a mediator variable, and firm performance as a dependent variable.

The primary goal of this study is to examine the mediating role of competitive advantage in the relationship of strategic flexibility and innovation capability to firm performance. This study's key question is 1) Does strategic flexibility affect competitive advantage? 2) Do innovation capabilities affect competitive advantage? 3) Does innovation affect firm performance? 4) Does strategic flexibility affect firm performance? 5) Does competitive advantage affect firms? 6) Does competitive advantage mediate between strategic flexibility and firm performance? 7) Does the competitive advantage mediate innovation capabilities and firm performance? This paper will further discuss the literature review, research method, data analysis and results, and conclude at the end of the article. The main goal of this study is to examine the mediating role of competitive advantage in the relationship of strategic flexibility and innovation capability to firm performance.

LITERATURE REVIEW

Dynamic Capabilities theory

The dynamic capability theory has a few key components such as sensing opportunities, seizing those opportunities, reconfiguring organizational resources, integrating those resources, continuous learning mechanisms, and having strategic processes (Helfat & Peteraf, 2009). Businesses must be able to sense the changes in market conditions such as customer preferences and technological advancement. After the opportunity is identified, businesses must act on them. Another component which is reconfiguration relies on realigning the resources in response to a change. The strategy needs to be accompanied by continuous learning to adapt its strategy over time. A process then needs to be in place for this strategy to work out.

Businesses that possess their core competencies and steadily enhance them are said to have a competitive edge and, as a result, perform better, according to the dynamic capability idea. (Otache & Usang, 2022); (Teece et al., 1997). Businesses with innovation skills and strategic flexibility will naturally flourish because they can obtain a competitive edge over rivals, create new, higher-quality goods, and adjust to a changing environment to improve firm performance. Exposito & Sanchis-Llopis (2018) state that innovation capabilities have been put to the test as a means of enhancing performance and gaining a competitive edge. Strategic flexibility is also part of the firm's dynamic capabilities and provides a competitive advantage (Herhausen et al., 2021). Due to all these reasons, the dynamic capability theory is suitable for this research.

Strategic flexibility and competitive advantage

Strategic flexibility is very important for a company, as businesses can respond to changing conditions. A business that can respond to changing consumer preferences or technological advancements can maintain its significance and relevance (Brozović et al., 2023). If a business has strategic flexibility, it can allocate its resources effectively and therefore gain a competitive advantage over its competitors. This is essential in an SME that typically has limited resources (Sen et al., 2023). In the dynamic capability's perspective, strategic flexibility relates to how resources are managed effectively (Chan et al., 2017). By doing so, strategic flexibility enables companies to achieve and maintain a competitive advantage (Yousuf et al., 2021). Therefore, we propose the following hypothesis:

H1: strategic flexibility has a significant impact on competitive advantage

Innovation capabilities and competitive advantage

A company that utilizes its innovation capabilities will gain a competitive advantage over its competitors. (Widyanti & Mahfudz, 2020). This is because businesses that use their innovation capabilities will be able to deal with the dynamic environment since they operate at a lower cost and provide a better value to their customers (Ferreira et al., 2021). Different aspects of innovation lead to better competitive advantage. From the dynamic capability theory, innovation capability is referred to as the seizing part of the theory (Kock, 2016). Therefore, we propose the following hypothesis:

H2: Innovation capabilities have a significant impact on competitive advantage.

Strategic flexibility and firm performance

In the context of strategic flexibility, a business can either be proactive or reactive. When a business has a proactive strategic flexibility approach, it anticipates any change in the environment, while a reactive business can only react to a change in business. A business's strategic flexibility depends on the resources they have and their ability to apply them. Strategic flexibility has always been known to have an impact on firm performance, as strategic flexibility makes it easier for businesses to meet the ever-changing demands of customer needs and the competitive nature of the business environment (Bashir, 2023). Strategic flexibility is an important factor when creating new products, entering new markets, and developing a firm's business model, which is an essential factor for firm performance. Therefore, we propose the following hypothesis:

H3: Strategic flexibility has a significant impact on firm performance.

Innovation capabilities and firm performance

Innovation capabilities allow businesses to meet market needs and also have new products and developments. The capacity of a business to endure, grow, and operate financially and effectively is referred to as firm performance. Innovation capabilities have been proven to increase both financial and non-financial benefits. Since innovation capabilities have also been proven to reduce costs and increase profit (Shafi, 2021). Therefore, we propose the following hypothesis:

H4: Innovation capabilities have a significant impact on firm performance.

Competitive advantage and firm performance

Competitive advantage is the implementation of strategies that haven't been implemented by other companies that help reduce costs, get market opportunities, and win against competitive threats (Tukirin, 2023). When a company has a differentiation that makes it better than its competitors in terms of price, value, or service, customers can easily recognize it, or it can charge premium pricing (Yang, 2019). Businesses with a more effective manufacturing process may be able to provide reduced costs and other benefits as a competitive advantage. These can open new markets for the business and increase their customer base, which leads to better firm performance. Therefore, we propose the following hypothesis:

H5: Competitive advantage has a significant impact on firm performance.

Strategic flexibility and firm performance with the mediation of competitive advantage

SMEs that want better performance must create a competitive advantage in terms of strategic flexibility to gain better firm performance. Exposito & Sanchis-Llopis (2018) suggest that strategic flexibility creates a competitive advantage and that competitive advantage leads to better firm performance (Kiyabo & Isaga, 2019). Thus, to mediate the link between strategic flexibility and firm performance, strategic flexibility has a competitive advantage. Therefore, we propose the following hypothesis:

H6: Competitive advantage mediates the relationship between strategic flexibility and firm performance.

Innovation capabilities and firm performance with the mediation of competitive advantage

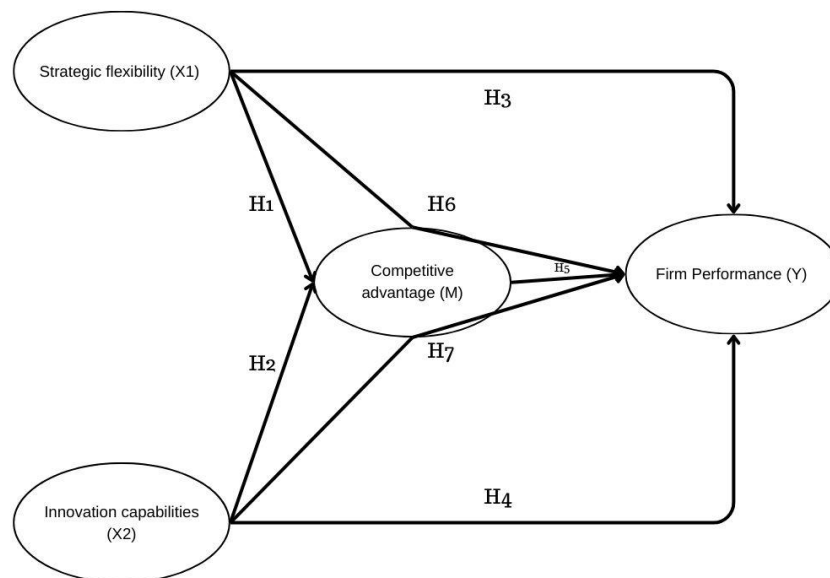
SMEs that want better firm performance must also create a competitive advantage in terms of their innovation capability. Innovation capabilities are part of what gives a firm a competitive advantage (Exposito & Sanchis-Llopis, 2018), and competitive advantage leads to better firm performance (Kiyabo & Isaga, 2019). Therefore, we propose the following hypothesis:

H7: Competitive advantage mediates the relationship between Innovation capabilities and firm performance.

METHOD

The data used in this quantitative study is gathered via questionnaires. Quantitative research is an approach of the systematic collection and analysis of data that can be quantified (Wilson, 2019). This type of research involves the use of statistical methods to analyze data collected from a sample of food and beverage SMEs. A quantitative approach is a more objective approach to research as it decreases bias and subjectivity. The link between the variables will also be discovered using the quantitative method.

The type of quantitative survey in this study is explanatory quantitative research. Explanatory quantitative research aims to understand the causal relationship between variables. In this case, we want to determine the mediation effect of competitive advantage on the relationship between strategic flexibility and innovation capabilities to firm performance. The descriptive survey involves collecting data on a few variables at the personal level during a specific period to understand the characteristics of the group being studied (Macfarlane, 1996). Figure 1 depicts the conceptual framework of this investigation.



source: Research Framework

Figure 1.

Measures

The measures that we used to test our variable indicator is taken for strategic flexibility is taken from Sanchez (1995), innovation capabilities is taken from Saunila (2017), competitive advantage from Safari et al., (2020) while firm performance is from Junaedi (2023). We have made a systematic approach on the survey so that it could easily be understood by the respondents and have a comprehensive understanding on how strategic flexibility and innovation capability mediated by competitive advantage leads to better firm performance. 4 indicators and 15 question item was used to measure strategic flexibility, 11 question item and 7 indicators was used for innovation capability, 6 question item and 4 indicator was used for competitive advantage and 7 question item also 3 indicator. The variables and indicators is shown in Appendix.

The measurement scale that is used is a 4-point like-ert scale. The 4-point Likert scale is a scale that is widely used especially in social studies research to study the perception and

judgment of people (Benediktus Tanujaya, 2022). The choices of the like-ert scale ranges from Strongly agree (4), Agree (3), Disagree (2), and Strongly disagree (1). The scale is designed to measure the agreement and disagreement of the person with the statement, with the categories increasing in intensity from strongly disagree to strongly agree.

Sampling and data collection procedure

The sampling method that will be used in this research is a G power analysis. The G power analysis is a method of determining sample size and power calculation for various statistical methods. An effect size of 0.08 is used as it represents a small effect size which is considered normal in the social science field (Brydges, 2019). In the G power analysis, a cronbach alpha of 0.05 is used to show the significance of the type I error rate (Clinical Research Centre, Sarawak General Hospital, Ministry of Health, Sarawak, Malaysia et al., 2018). The power of 0.8 is used as it balances out the type II error and balances the precision and practical constraint of the research (Serdar et al., 2021). The G Power analysis was used to find the minimum number of samples used in this study which is 101 participants.

The sampling method used for this research is purposive sampling where a participant who meets the criteria can be a respondent (Campbell et al., 2020). The population chosen for this research must be eligible to be a research participant. Eligibility in research refers to a specific criterion or attribute that deems the person either appropriate or not appropriate to be included in the study (McCrae & Purssell, 2015). The population of this research is the food and beverage industry that operates in the East Java region. This is an unknown population as the parameters regarding a food and beverage business are hard to measure and there is a lack of an exact number. The sample should be considered as an SME. The size of a business can often be measured by the number of employees. A business is considered as an SME by having 10 to 200 employees (De Sordi et al., 2024). Another criteria that the sample must fulfill is that they must also be either owner/managers of the business. They also need to be knowledgeable about their own business (Haq & Davies, 2023).

The data will be analyzed statistically using the partial least square (PLS) regression method. The PLS regression model will be taken from the collected data of food and beverage SMEs. The PLS method is a method that is typically used in the social science field for understanding the more complex relationships between observed and latent variables (Magno et al., 2024).

Data analysis

This study uses Partial Least Square - Structural Equation Modeling (PLS-SEM) using PLS 4 Software to analyze our data. This approach was chosen for several compelling reasons. PLS 4 has versatility in handling both complex and simple models, its ability to operate without strict normality assumptions, and its superior estimation capabilities compared to traditional regression techniques (Hair et al., 2021c). Furthermore, the literature indicates that PLS-SEM offers distinct advantages over Covariance-Based SEM (CB-SEM) in many research contexts. Our PLS-SEM analysis incorporated both structural and measurement models, allowing the researcher to examine the relationships between latent variables and their indicators simultaneously. The use of PLS 4 Software enabled the leveraging of the latest advancements in PLS-SEM methodology, including improved algorithms for model estimation and more sophisticated options for assessing model fit and predictive power.

RESULTS AND DISCUSSION

Table 1. Description of Respondent Data

Information		Frequency	Percentage
Gender	Male	41	38.3
	Female	66	61.7

Total		107	100
Age	Less than 25	4	5.38
	26- 36 Years old	34	28.07
	37- 45 Years old	58	48.07
	More than 46 years old	11	18.46
Total		107	100
Town	Surabaya	40	37.4
	Malang	6	5.6
	Jember	6	5.6
	Sidoarjo	18	16.6
	Madiun	2	1.9
	Banyuwangi	7	6.5
	Jombang	13	12.1
	Tulungagung	1	0.9
	Other towns in East Java	14	13.1
Total		107	100

Source: Processed data (2024)

This study surveyed 107 respondents from various towns in East Java, Indonesia, to gather demographic information. The sample comprised 61.7% females and 38.3% males. Age distribution analysis revealed that the majority of participants (48.07%) fell within the 37-45 years age bracket, followed by 28.07% in the 26-36 years category. The remaining participants were distributed between those over 46 years (18.46%) and under 25 years (5.38%). Geographically, the respondents were predominantly from urban areas, with Surabaya, the provincial capital, accounting for 37.4% of the sample. Other significant representations came from Sidoarjo (16.6%) and Jombang (12.1%). The remaining participants were distributed across various towns in East Java, including Banyuwangi, Malang, Jember, Madiun, and Tulungagung, collectively representing 33.6% of the sample. This demographic profile provides a comprehensive overview of the study participants, reflecting a diverse cross-section of East Java's population in terms of gender, age, and geographical distribution.

Validity and Reliability Tests Results

The Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS 4 software is used to assess both the measurement and structural models. PLS-SEM was chosen due to its ability to handle complex models with multiple constructs and its suitability for exploratory research. The deletion of specific indicators such as items SF 1.1, 1.2, 1.3 4.3, IC 1.1, 2.1, 3.1, CA 1.1, FP 1.1 in this research on SMEs in East Java can be attributed to several factors. Indicators may have been removed due to lack of relevance or applicability to the local context, ensuring precision and focus. Measurement challenges in the SME environment could have led to exclusions to preserve methodological rigor. Managerial involvement indicators showing weak correlations with performance metrics might have been omitted. Some performance-related indicators could have been consolidated for analytical clarity. The local economic context likely influenced indicator relevance, with misaligned ones being discarded. Finally, empirical evidence from previous studies may have guided the selection process, favoring indicators with established robust relationships in similar contexts (Tolossa et al., 2024).

Validity Test

Validity and reliability tests are crucial in research as they ensure the accuracy and consistency of measurement instruments (Cheung et al., 2024). Convergent validity, measure how well the items in a construct actually represent that construct. The convergent validity of the measurement model was assessed by examining the factor loadings and Average Variance Extracted (AVE) values. Factor loadings for all items were above the recommended threshold

of 0.5, ranging from 0.613 to 0.849, indicating acceptable item reliability. The AVE values for each construct exceeded the minimum criterion of 0.5, ranging from 0.513 to 0.661. This suggests that the latent variables explain more than half of the variance in their respective indicators, providing evidence of convergent validity (Cheung et al., 2024). The results demonstrate that the measurement items adequately represent their respective constructs.

Reliability Test

Table 2. Validity and reliability test 1st-order

Variable	Indicators	Item	Outer Loading	AVE	CR
Strategic flexibility	Resource flexibility	SF 1.4	0.628	0.513	0.920
		SF 2.1	0.721		
		SF 2.2	0.630		
	Coordination flexibility	SF 2.3	0.636		
		SF 3.1	0.706		
		SF 3.2	0.801		
	Temporary organization (TO) efficiency	SF 4.1	0.776		
		SF 4.2	0.744		
		SF 4.4	0.721		
		SF 4.5	0.746		
		SF 4.6	0.745		
Innovation capability	Regeneration	IC 5.1	0.613	0.529	0.886
		IC 5.2	0.645		
	External knowledge	IC 6.1	0.735		
		IC 6.2	0.707		
	Individual activity	IC 7.1	0.764		
		IC 7.2	0.788		
		IC 7.3	0.817		
Competitive advantage	Quality	CA 2.1	0.608	0.578	0.801
	Customer responsiveness	CA 4.1	0.803		
		CA 4.2	0.849		
Firm Performance	Marketing Performance	FP 2.1	0.800	0.661	0.796
	Digital Performance	FP 3.1	0.825		

Source: Processed Data (2024)

Abbreviation: Composite reliability (CR), and average variance extracted (AVE)

The reliability of the constructs was evaluated using Composite Reliability (CR) values. All CR values exceeded the recommended threshold of 0.7, ranging from 0.796 to 0.920, indicating good internal consistency and reliability of the measures (Cheung et al., 2024). The high reliability scores indicate that the measurement items for each construct consistently represent the same latent variable. Overall, the results of both the validity and reliability tests support the measurement model's psychometric soundness, providing a solid foundation for further analysis and interpretation of the structural relationships between the constructs.

Table 3. Discriminant validity result by Fornell Larcker Criterion

Variable	Strategic flexibility	Innovation capability	Competitive advantage	Firm Performance
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Strategic flexibility	0.760			
Innovation capability	0.467	0.813		
Competitive advantage	0.455	0.419	0.728	
Firm Performance	0.386	0.269	0.467	0.716

Source: Processed data (2024)

The square root of the AVE values for Strategic Flexibility (0.760), Innovation Capability (0.813), Competitive Advantage (0.728), and Firm Performance (0.716) are all higher than their respective correlations with other constructs. For example, Strategic Flexibility's square root of AVE (0.760) is greater than its correlations with Innovation Capability (0.467), Competitive Advantage (0.455), and Firm Performance (0.386). Similarly, Innovation Capability's square root of AVE (0.813) is higher than its correlations with Competitive Advantage (0.419) and Firm Performance (0.269). This pattern holds for all constructs, confirming that discriminant validity is established according to the Fornell-Larcker criterion

In the current study, we do not report Heterotrait-Monotrait (HTMT) analysis for the evaluation of discriminant validity because we used PLS 4. This advanced tool integrates more refined approaches toward model validation, which include more sophisticated procedures to check for discriminant validity that reduce the need for HTMT analysis. PLS 4 performs a more thorough assessment of discriminant validity considering the peculiarities of our model and dataset.

Inner Model Analysis

Table 4. Hypothesis Testing

Hypothesis	Path	Path coefficient	t-statistics	p-value	Decision	Effect
H1	Strategic flexibility (X1) -> Competitive advantage (M)	0.227	2.419	0.016	Supported	Direct
H2	Innovation capabilities (X2) -> Competitive Advantage (M)	0.358	3.522	0.000	Supported	Direct
H3	Strategic flexibility (X1) -> Firm Performance (Y)	-0.009	0.090	0.928	Not supported	Direct
H4	Innovation capabilities (X2) -> Firm Performance (Y)	0.277	1.834	0.067	Not supported	Direct
H5	Competitive advantage (M) -> Firm	0.340	2.351	0.019	Supported	Direct

	Performance (Y)					
H6	Strategic flexibility (X1) -> Competitive advantage (M) -> Firm Performance (Y)	0.077	1.656	0.098	Not supported	Indirect
H7	Innovation capabilities (X2) -> Competitive Advantage (M) -> Firm Performance (Y)	0.122	1.774	0.076	Not supported	Indirect

Source: Processed data (2024)

To evaluate the significance of the path coefficients and the reliability of our measures, the research utilized a bootstrapping procedure with 5000 subsamples (Méndez-Suárez, 2021). This non-parametric resampling technique allows for the estimation of standard errors and confidence intervals without assuming normal distribution of the data. The bootstrapping method enhances the robustness of our results by providing more accurate assessments of the relationships between variables, particularly in cases where the sample size may be limited or the data distribution is uncertain.

The results of the PLS-SEM analysis with bootstrapping are presented in the table 6. The path coefficients show the strength and direction of the relationships between the variables, with values closer to 1 suggesting stronger effects (Hair et al., 2021b). T-statistics are calculated by dividing the path coefficients by their bootstrap standard errors, with values greater than 1.96 typically indicating statistical significance at the 0.05 level for a two-tailed test (Hair et al., 2021a). P-values represent the probability of obtaining the observed results if the null hypothesis (no effect) were true. In this analysis, we see path coefficients ranging from -0.009 to 0.358, t-statistics from 0.090 to 3.522, and p-values from 0.000 to 0.928, indicating varying levels of support for the hypothesized relationships.

The path coefficient analysis revealed several significant relationships among the variables. The findings indicate that strategic flexibility significantly positively affects competitive advantage ($\beta = 0.227$, $t = 2.419$, $p < 0.05$), supporting H1. Similarly, innovation capabilities strongly influenced competitive advantage ($\beta = 0.358$, $t = 3.522$, $p < 0.001$), supporting H2. However, the direct relationships between strategic flexibility and firm performance ($\beta = -0.009$, $t = 0.090$, $p = 0.928$), and between innovation capabilities and firm performance ($\beta = 0.277$, $t = 1.834$, $p = 0.067$) were not statistically significant, thus failing to support H3 and H4 respectively. The analysis further revealed that competitive advantage significantly influences firm performance ($\beta = 0.340$, $t = 2.351$, $p < 0.05$), supporting H5. Regarding the mediating effects, neither the indirect path from strategic flexibility to firm performance through competitive advantage ($\beta = 0.077$, $t = 1.656$, $p = 0.098$) nor the indirect path from innovation capabilities to firm performance through competitive advantage ($\beta = 0.122$, $t = 1.774$, $p = 0.076$) reached statistical significance, leading to the rejection of H6 and H7. These results suggest that while strategic flexibility and innovation capabilities contribute to building competitive advantage, their impact on firm performance is primarily channeled through direct effects.

Table 5.R square table

	R-square	R-square adjusted
Competitive Advantage	0.246	0.231
Firm Performance	0.272	0.251

Source: Processed data (2024)

R^2 , is a fundamental metric in statistical analysis that quantifies the proportion of variance in a dependent variable explicable by independent variable(s) in a regression model (Chicco et al., 2021). In the context of structural equation modeling (SEM) and partial least squares (PLS) analysis, R^2 values are computed for each endogenous construct, providing insight into the model's explanatory power. The R^2 metric ranges from 0 to 1, with higher values indicating greater predictive capacity of the model for the construct in question.

In the context of this research, R^2 values were calculated for two key constructs: Competitive Advantage and Firm Performance. The analysis yielded R^2 values of 0.246 and 0.272 for Competitive Advantage and Firm Performance, respectively. These figures suggest a weak to moderate explanatory power of the model, as per conventional interpretative thresholds in the field. Specifically, the model accounts for 24.6% of the variance in Competitive Advantage and 27.2% of the variance in Firm Performance. While these results indicate some predictive capability, they also reveal that a substantial portion of the variance in both constructs remains unexplained by the current set of predictors. This finding underscores the potential presence of additional, unaccounted-for factors that may contribute to the variation in Competitive Advantage and Firm Performance, highlighting avenues for future research to enhance the model's explanatory power.

Table 6.F square table

	Competitive advantage	Firm Performance	Innovation capabilities	Strategic flexibility
Competitive advantage		0.123		
Firm Performance				
Innovation capabilities	0.128	0.061		
Strategic flexibility	0.051	0.000		

Source: Processed data (2024)

The f^2 effect size is a key metric in PLS-SEM that quantifies the impact of exogenous constructs on endogenous constructs (Serdar et al., 2021). Introduced by Cohen (1988), f^2 measures the change in R^2 when a specific predictor construct is omitted from the model, providing insights into the relative importance of each predictor. The f^2 effect size is calculated as $(R^2_{\text{included}} - R^2_{\text{excluded}}) / (1 - R^2_{\text{included}})$, where R^2_{included} and R^2_{excluded} represent the R^2 values with and without the selected exogenous construct.

In this study, f^2 values were computed for relationships between Competitive Advantage, Firm Performance, Innovation Capabilities, and Strategic Flexibility. Innovation Capabilities showed the strongest effect on Competitive Advantage ($f^2 = 0.128$) and a smaller effect on Firm Performance ($f^2 = 0.061$). Competitive Advantage exhibited a medium effect on Firm Performance ($f^2 = 0.123$). Strategic Flexibility demonstrated a small effect on Competitive Advantage ($f^2 = 0.051$) but no effect on Firm Performance ($f^2 = 0.000$). Interpreting these results using Cohen's guidelines (0.02, 0.15, and 0.35 for small, medium, and large effects), we observe that Innovation Capabilities and Competitive Advantage play significant roles in the model, while Strategic Flexibility has limited influence. These findings offer insights into the factors

shaping competitive advantage and firm performance, informing both theory and practice in the field.

Discussion

The results support H1, showing that strategic flexibility positively influences competitive advantage. This implies that SMEs in East Java can leverage their ability to adapt to changing environments and allocate resources efficiently, thereby gaining a competitive advantage in the market. H2 is also supported, indicating that SMEs with higher innovation capabilities can develop unique products, processes, or services that help differentiate them from competitors. H3 was not supported, suggesting that strategic flexibility alone does not directly translate to enhanced firm performance in this context. The lack of direct impact may indicate that flexibility must be purposefully aligned with strategies that enhance competitive positioning to improve performance outcomes (Jafari et al., 2023). H4 is also not supported, showing that innovation capabilities do not have a significant direct impact on firm performance. This result suggests that while innovation is important for gaining a competitive edge, it may not directly lead to improved performance. For H5 the results show that competitive advantage plays a crucial role in driving firm performance. SMEs that differentiate themselves through quality, efficiency, or responsiveness are better positioned to achieve higher performance. H6 in this research is not supported suggesting that competitive advantage does not fully mediate the effect of strategic flexibility on performance. This shows that strategic flexibility must be applied effectively toward achieving a competitive edge to influence performance, rather than strategic flexibility alone having a transformative impact. H7 is also not supported, which means competitive advantage does not mediate the link between innovation capabilities and firm performance. Although innovation helps SMEs develop competitive advantages, other factors may influence performance beyond innovation capabilities alone.

Specifically, innovation capabilities have a direct and significant impact on both competitive advantage and firm performance, which aligns with the findings of prior research emphasizing the importance of innovation in SME success (Ferreira et al., 2021). The direct positive influence of innovation capabilities suggests that SMEs in East Java should prioritize innovative practices to differentiate themselves in the market and remain competitive amidst changing economic conditions. Handayani Thai Resto exemplifies this innovative approach by successfully merging Thai and Indonesian cuisines while maintaining authenticity in both culinary traditions, creating a unique market position in Surabaya's competitive restaurant scene. The restaurant's strategic blend of cultural elements extends beyond its menu to encompass thoughtfully designed spaces that feature traditional Thai and Indonesian decor, demonstrating how innovative thinking can create distinctive value propositions that appeal to diverse customer segments.

Interestingly, while strategic flexibility was expected to have a direct impact on performance, the results show that its effect is only significant when there is a competitive advantage. This indicates that simply having flexible strategies does not automatically translate into higher performance for SMEs in East Java. Instead, flexibility must be applied in ways that improve the firm's competitive position, which may involve a more targeted use of resources and strategic alignment with market needs.

Dopamine Cafe's example in Surabaya perfectly shows how initial strategic flexibility in combining a cafe and bakehouse concept did not immediately translate to success, as several other establishments offered similar concepts. Their performance significantly improved when they leveraged their flexible space and operations to create a unique competitive advantage through community-focused events and creative collaborations. Through hosting engaging workshops like macrame crafting and balloon art, organizing regular pop-up markets featuring local artisans, and establishing their signature "Creative Week" events featuring DJ

performances, Dopamine transformed from a simple cafe-bakery into a vibrant community hub. Their success demonstrates that while being strategically flexible was important, it was only when they transformed this strategic flexibility into a clear competitive advantage that they saw a positive improvement in their performance.

This finding deviates from studies in other regions where flexibility alone has been a key driver of performance, suggesting that the specific economic and cultural context of East Java may moderate this relationship (Kafetzopoulos et al., 2023; Xiu et al., 2017). Comparing the current study with the journal on strategic flexibility and ambidexterity (Kafetzopoulos et al., 2023), key differences include the roles of ambidexterity and strategic flexibility in driving business performance. While this study focuses on SMEs in East Java, the study respondents focus on Greek manufacturing and service sectors. The journal finds that strategic flexibility has a positive effect on firm performance. In contrast, the current study suggests that in the East Java context, flexibility alone does not directly enhance firm performance without competitive advantage as a moderating factor. The differences stem from regional variations, with East Java's economic and cultural environment emphasizing stability and community values over rapid adaptability, unlike the more competitive, innovation-driven markets presented in the Greek manufacturing and service sector.

There is a non-significant mediating role of competitive advantage in translating both strategic flexibility and innovation capabilities into firm performance. These findings reveal unique characteristics of East Java's food and beverage SME sector. Despite the development of competitive advantages through strategic flexibility and innovation capabilities, their limited impact on firm performance can be attributed to several contextual factors. The highly uneven nature of the local market, where SMEs often operate in specialized niches serving distinct community preferences, diminishes the traditional benefits of competitive advantage. Additionally, the success of these businesses appears to be more strongly influenced by deep-rooted community relationships, family traditions, and local loyalty rather than formal competitive advantages. The informal nature of many operations in this sector, coupled with the strong role of social networks and community embeddedness, suggests that traditional metrics of competitive advantage may not adequately capture the true success factors of East Java's food and beverage SMEs. These findings challenge the universal applicability of competitive advantage as a performance mediator in this specific context and indicate that business success might be more directly influenced by factors such as social capital, local knowledge, and community integration rather than conventional competitive advantages.

These findings add to the growing literature on the SME in developing regions, especially Indonesia. Whereas much of the literature written on SMEs emphasizes the capability of innovation and flexibility as being critical, this paper provides a new East Java-specific perspective that these variables contribute to performance in a manner different from that in other contexts. For instance, studies from other regions have found a direct relationship between strategic flexibility and performance. (Bashir, 2023), but this research proposes that the unique market dynamics in East Java require a more joined approach, where flexibility needs to be attached to competitive strategies for success.

The study's practical implications are that the owners and managers of SMEs in East Java should focus on building innovation capabilities, especially in product and service development. The managers must also ensure that strategic flexibility is channeled towards improving competitive advantage rather than be pressured by external factors. This would, therefore, imply that, for the policy makers, programs must be put in place to support innovation in SMEs through access to technology, training programs, and innovation ecosystems that help SMEs harness strategic flexibility in ways that foster competitiveness and performance.

CONCLUSION

The study offers useful insights into the success factors of SMEs in the region of East Java and underlines the importance of innovative skills combined with tactical usage of flexibility. The results identify innovation as a way to promote competitive advantage and improve firm performance and suggest that SMEs in this region should focus on process and product improvements to sustain competitive advantage. More importantly, strategic flexibility alone cannot be executed but is rather effective when complemented by other strategies for achieving competitive advantage. In this regard, the present research brings to light certain characteristics of SMEs in the East Java region and provides a theoretical perspective and practical guidelines that can be used by regional policymakers and entrepreneurs.

Despite the fact that this study has highlighted a few useful insights, a number of its limitations need to be conceded. First, it is clearly more difficult to assess the impact of innovation and strategic flexibility in the long run based on the cross-sectional character of the data. The sample is limited to East Javan SMEs; this would not generalize findings across other areas or sectors of the economy. Moreover, research was focused more on internal organizational capabilities, not including those that could be exposed to external influences that may affect the relationship between innovation, adaptability, and success, such as market conditions, governmental support, or economic disruption.

Future research should be specifically designed as a longitudinal study to grasp the nature of innovation skills and strategic flexibility change over time in SMEs. This will allow a deeper understanding of how the factors interact with company performance due to dynamic market conditions. Moreover, expanding the study to include SMEs from other Southeast Asian or Indonesian regions may provide comparative insight and enhance the generalisability of the findings. It would also be interesting to analyze how external contingencies such as legal regulations, available financial resources, or sector-specific conditions affect the relationship among innovation, strategic flexibility, and performance. Again, this might be extended by examining organizational culture and leadership as mediating influences to further understand how to develop and exploit internal competencies.

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