

## Transformation of SMEs: Strengthening Entrepreneurship and Product Innovation as Key Drivers of Business Evolution

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### Abstract

The important role of Small and Medium Enterprises (SMEs) in driving economic growth requires a deep understanding of the factors that influence their performance. The number of samples in this study was 175 respondents, processed using the Structural Equation Modeling (SEM) method through the AMOS (Analysis of Moment Structure) program. This research explores the dynamics of entrepreneurial competence and product innovation as the main determinants of SME success. In the context of SMEs that have survived for two years in Gowa Regency, South Sulawesi, this research reveals that increasing entrepreneurial competence has a positive impact on business performance. Simultaneously, effective product innovation is proven to make a significant contribution to superior business outcomes. This study also highlights the mediating role of the market environment, demonstrating its influence on the relationship between entrepreneurial competence, product innovation, and business performance. These findings provide valuable insights for policy makers, educators and business actors who aim to increase the competitiveness and adaptability of SMEs amidst rapid business change.

**Keywords:** SMEs; Entrepreneurial Competence; Product Innovation; Business Performance; Market Environment.

### INTRODUCTION

The contemporary landscape of Small and Medium Enterprises (SMEs) is integral to the economic fabric of a country, serving not only as employment generators but also as vital contributors to gross domestic product (GDP) and catalysts for innovation and technological progress. In the midst of the dynamic global economy, SMEs grapple with

diverse challenges, necessitating substantial efforts to bolster their performance and competitiveness.

The forefront of current research in this domain, as highlighted by Nurdina & Aripriabowo (2022), underscores the significance of two pivotal factors for the growth and sustainability of SMEs: entrepreneurial competencies and product innovation. Entrepreneurial competence encompasses effective business management, adept identification of opportunities, and adept risk management. Simultaneously, product innovation emerges as a linchpin for creating added value, elevating product competitiveness, and responding agilely to evolving market needs.

Despite the acknowledged importance of entrepreneurial competencies and product innovation, there exists a notable gap in comprehensive research that elucidates their interconnected impact on SME performance. The proposed research endeavors to bridge this knowledge void by investigating the extent to which the fortification of entrepreneurial competencies and the promotion of product innovation collectively determine SME performance.

This ambitious research not only seeks to empirically unravel the intricate relationships between entrepreneurial competencies, product innovation, and SME performance but also aspires to contribute conceptually and practically. The anticipated contributions extend to the realms of informing economic policies, refining educational strategies, and devising more efficacious support mechanisms tailored for small and medium entrepreneurs navigating the challenges and opportunities of an ever-evolving business landscape. In essence, the proposed research aims to provide a nuanced understanding that can inform actionable strategies for the holistic development of SMEs in the contemporary business era.

## **LITERATURE REVIEW**

### **Entrepreneurial Competence in the Context of SMEs**

The central theme of research pertaining to the development of Small and Medium-sized Enterprises (SMEs) revolves around the enhancement of entrepreneurial competence. Sumarno et al. (2018) define entrepreneurial competence as a multifaceted construct comprising cognitive, affective, and psychomotor dimensions. This encompasses a spectrum of attributes, ranging from a deep comprehension of business intricacies to the cultivation of entrepreneurial attitudes and the acquisition of practical skills. In alignment with this perspective, Suryana and Burhanuddin (2021) conducted earlier research, which accentuates the pivotal role of entrepreneurial competence in elevating competitiveness and overall business performance.

The intricate nature of entrepreneurial competence underscores the need for a holistic approach that considers not only cognitive aspects, such as business acumen but also the affective dimension involving attitudes and the psychomotor domain comprising practical skills. The synthesis of these elements is deemed essential for fostering a well-rounded entrepreneurial skill set. As underscored by Sumarno et al. (2018) and

corroborated by Suryana and Burhanuddin (2021), the development of entrepreneurial competence emerges as a linchpin for SMEs seeking to thrive in the competitive business landscape, emphasizing the interconnectedness of cognitive, affective, and psychomotor facets in shaping entrepreneurial prowess.

### **Role of Product Innovation in SME Development**

At the core of Small and Medium Enterprises (SMEs) growth strategies lies the pivotal element of product innovation, a concept underscored by Aulia & Aslami (2023). It transcends the mere creation of novel products, extending its purview to encompass modifications and enhancements to existing offerings. The research conducted by Lestari & Muttaqin (2023) amplifies the importance of this strategic focus, revealing that SMEs actively engaging in product innovation exhibit a remarkable capacity to navigate market dynamics. Beyond adaptation, these enterprises demonstrate an enhanced competitiveness, positioning themselves advantageously in the business landscape. Moreover, the practice of product innovation equips SMEs with the valuable ability to carve out differentiators, distinguishing themselves in the market milieu.

Aulia & Aslami (2023) posit that the dynamism inherent in product innovation serves as a catalyst for SMEs, propelling them beyond the confines of static business models. The proactive involvement in refining and introducing products not only ensures resilience in the face of market fluctuations but also establishes a foundation for sustained growth. This dual approach of adapting to change while concurrently differentiating offerings aligns with the multifaceted benefits associated with product innovation, as elucidated in the research findings by Lestari & Muttaqin (2023). Consequently, the strategic incorporation of product innovation emerges not merely as a reactive measure but as an integral component fostering agility, competitiveness, and distinctiveness in the SME sector.

### **Interconnection Between Entrepreneurial Competence and Product Innovation**

Numerous investigations have underscored the intricate relationship between entrepreneurial competence and product innovation, shedding light on their symbiotic connection. As elucidated by Prasetyo (2020), the success of entrepreneurship is intricately linked to its ability to act as a catalyst for creativity and innovation. Delving deeper into this nexus, research conducted by Suhartini et al. (2022) provides empirical evidence suggesting that entrepreneurs endowed with robust entrepreneurial competence exhibit a heightened propensity to partake in innovative pursuits.

Prasetyo's (2020) insights underscore the pivotal role of entrepreneurship in cultivating an environment conducive to the generation of creative ideas and the subsequent manifestation of innovative practices. The synergy between entrepreneurial competence and innovation becomes particularly pronounced in the context of Suhartini et al.'s (2022) research, which implies that the possession of strong entrepreneurial competencies significantly correlates with active engagement in innovative activities. This implies a reciprocal relationship, where entrepreneurial competence fuels an entrepreneurial spirit that, in turn, propels individuals towards inventive endeavors. Recognizing this interplay is pivotal for understanding how entrepreneurial competence

serves not only as a driver of successful entrepreneurship but also as a precursor to the stimulation of innovative activities within the entrepreneurial landscape.

### **SME Performance as An Outcome of the Combination of Entrepreneurial Competence and Product Innovation**

An extensive body of literature underscores the notion that the performance of Small and Medium Enterprises (SMEs) is intricately tied to the synergistic interplay between entrepreneurial competence and product innovation. As posited by Anatan & Ellitan (2023), the triumph of SMEs transcends internal factors like management and finance, extending to their capacity for adaptability and innovation. The research conducted by Arasti et al. (2021) further substantiates this perspective, contending that SMEs adept at seamlessly integrating entrepreneurial competence with product innovation stand poised to attain superior performance outcomes.

Anatan & Ellitan's (2023) assertion emphasizes a holistic perspective on SME success, recognizing that factors beyond conventional managerial and financial considerations significantly contribute to sustained growth. The capacity to navigate dynamic market landscapes through adaptability and foster innovation becomes a hallmark of successful SMEs. This aligns with the findings of Arasti et al. (2021), which advocate for a symbiotic relationship between entrepreneurial competence and product innovation as a potent catalyst for enhancing SME performance. Consequently, acknowledging and harnessing this interconnected dynamic emerges as a strategic imperative for SMEs aiming to not only endure but thrive in the ever-evolving business environment.

### **Global Context and Challenges for SMEs**

On the global stage, Small and Medium Enterprises (SMEs) confront an array of challenges marked by escalating competition and swift transformations in technology and market dynamics. Rustya (2023) contends that amidst these challenges, successful SMEs assume the role of agents instigating change and innovation within the global economy. In light of this, there emerges a growing imperative for a deepened comprehension of entrepreneurial competence and product innovation.

Rustya's (2023) assertion emphasizes the transformative potential embedded in SMEs when equipped with the attributes of adaptability, innovation, and entrepreneurial acumen. As dynamic forces reshape the global economic landscape, SMEs not only navigate challenges but also emerge as catalysts for progress. Recognizing the symbiotic relationship between entrepreneurial competence and product innovation becomes paramount in harnessing the transformative potential of SMEs.

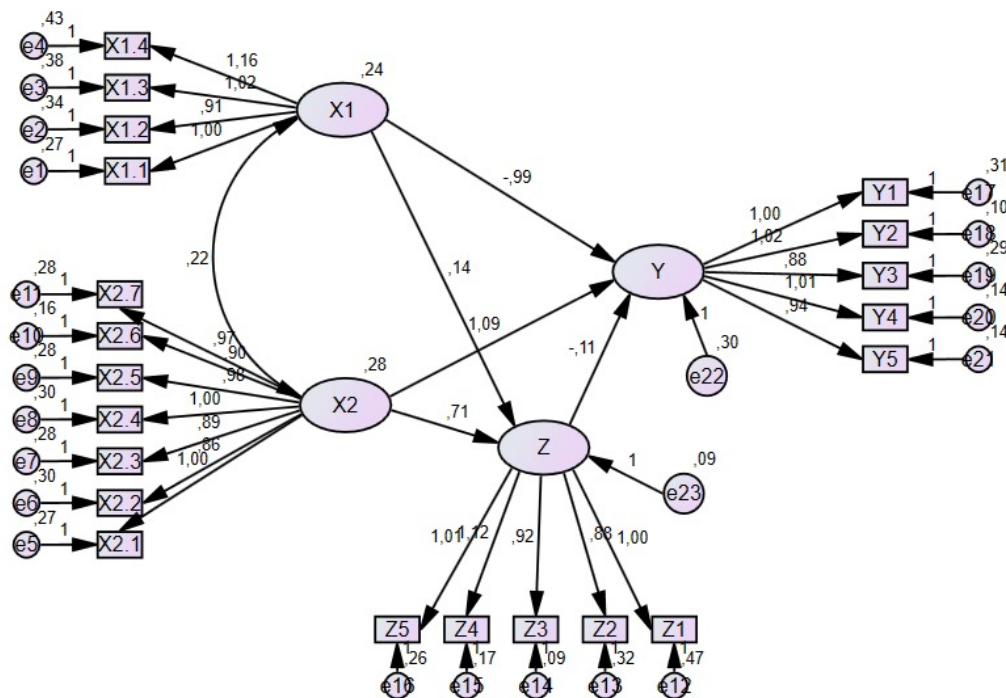
The evolving nature of global markets necessitates a nuanced understanding of how SMEs can not only survive but thrive in this dynamic environment. Rustya's insights underscore that SMEs, when fortified with entrepreneurial competence and a commitment to product innovation, become pivotal contributors to global economic shifts. Therefore, cultivating a comprehensive understanding of these elements is pivotal, as it positions SMEs not merely as entities grappling with challenges but as dynamic agents driving innovation and change on the world stage.

**METHODOLOGY**

This research employs a quantitative descriptive research design to elucidate the characteristics of employee respondents in SMEs that have endured for 2 years in the Gowa Regency, South Sulawesi Province. The research population includes all SMEs meeting these criteria, with a sample of 175 SME actors chosen using the Slovin formula. Data collection is conducted through the distribution of questionnaires to respondents, along with observations and interviews to obtain more in-depth information. The questionnaire is designed based on the variables under investigation, while observations provide a direct view of relevant physical conditions or activities. In-depth interviews are conducted with SME owners or employees. The collected data will be processed using the Structural Equation Modeling (SEM) method through the AMOS program. The data collection and analysis process are expected to provide a more comprehensive overview of the relationships between research variables and the characteristics of SMEs that have successfully endured during this period.

**RESULTS AND DISCUSSION**

Figure 1. SEM Analysis Results



Source: Author's Own Analysis

In this Structural Equation Modeling (SEM) analysis, we present the estimation results for each parameter of the proposed model. The following table presents the estimated

values, standard errors, and model fit evaluation metrics, such as Root Mean Square Error of Approximation (RMSEA), Goodness of Fit Index (GFI), and Comparative Fit Index (CFI). This analysis aims to provide an in-depth understanding of the extent to which the model fits the observational data collected.

Root Mean Square Error of Approximation (RMSEA) is one of the evaluation measures used in structural path analysis (Structural Equation Modeling/SEM), including in the context of using the AMOS program. RMSEA provides an indication of the degree to which the proposed model fits the data, with smaller values indicating a better fit. The Goodness of Fit Index (GFI) Conformity Test is one of the evaluation metrics in structural path analysis (Structural Equation Modeling/SEM), and in this case, in analysis using the AMOS program. GFI is used to assess the extent to which the proposed model corresponds to actual observational data. Comparative Fit Index (CFI) is one of the evaluation metrics in structural path analysis (Structural Equation Modeling/SEM), which is also used in the context of using the AMOS program. CFI measures the comparison between the fit of a proposed model to observational data compared to a baseline model that does not have free parameters.

Table 1. Goodness of Fit Index Modification

Goodness of fit index	Cut off Value	Results	Note
RMSEA	≤ 0,08	0,002	Good fit
GFI	≥ 0,90	0,967	Good fit
CFI	≥ 0,90	0,939	Good fit

Source: Author's Own Analysis

### Hypothesis test

Furthermore, the relationships and coefficients of influence between variables are presented as follows:

Table 2. Estimate Interaction Variables

			Estimate	S.E.	C.R.	P
Z	<---	X1	0,144	0,224	0,641	0,022
Z	<---	X2	0,711	0,221	3,221	0,001
Y	<---	X1	0,991	0,446	2,22	0,026
Y	<---	Z	0,113	0,241	0,472	0,037
Y	<---	X2	1,089	0,457	2,381	0,017

Source: Author's Own Analysis

- Entrepreneurial Competence has a positive and significant effect on business performance with an estimated value of 0.991 with a significance level of 0.026.
- Product innovation has a positive and significant effect on business performance with an estimated value of 1,089 with a significance level of 0.017.

## Indirect Effect Analysis

Indirect effect is the influence of exogenous variables on endogenous variables through intervening variables. To test the indirect effect, the results are as follows:

Table 3. Total, Direct and Indirect Effect.

Total Effects (Group number 1 - Default model)

	X2	X1	Z	Y
Z	0,711	0,144	0	0
Y	1,008	1,007	0,113	0

Direct Effects (Group number 1 - Default model)

	X2	X1	Z	Y
Z	0,711	0,144	0	0
Y	1,089	0,991	0,113	0

Indirect Effects (Group number 1 - Default model)

	X2	X1	Z	Y
Z	0	0	0	0
Y	0,081	0,016	0	0

Source: Author's Own Analysis

From the table above it can be concluded that:

- Market Environment Variables can mediate the relationship between Entrepreneurial Competence and Business Performance with an indirect effects value of 0.081 with a significance level of 0.0000.
- Market Environment Variables can moderate the relationship between Product Innovation and Business Performance with an estimated value of 0.016 with a significance level of 0.0000

## Discussion

### 1. Entrepreneurial Competency has a positive and significant effect on business performance.

In the context of SMEs that have survived for 2 years in Gowa Regency, South Sulawesi Province, the results of the analysis show that entrepreneurial competence plays a crucial role in determining business performance. The findings of this research consistently confirm that a high level of entrepreneurial competence positively and significantly contributes to increasing business performance in SMEs. Entrepreneurial competency includes a deep understanding of business management, the ability to identify opportunities, and courage in managing risks. SMEs who are able to combine these aspects in their business operations tend to achieve better results in terms of revenue growth, product marketing and business sustainability. This research is in line with (Srimulyani et al., 2023).

The high level of entrepreneurial competence is also reflected in the strategic initiatives taken by SME entrepreneurs, such as new product development, market expansion and operational efficiency. This provides empirical support for the view that

strong entrepreneurial capabilities have a positive impact on business performance. These findings are relevant for stakeholders, including governments, educational institutions and business practitioners, who can design programs and policies aimed at increasing entrepreneurial competence among SMEs. Thus, the results of this research provide a significant contribution to understanding the relationship between entrepreneurial competence and business performance at the local level, as well as providing a basis for efforts to improve the quality and competitiveness of SMEs in Gowa Regency and similar contexts.

## **2. Product innovation has a positive and significant effect on business performance.**

In the research framework of SMEs that have survived for 2 years in Gowa Regency, South Sulawesi Province, the findings show that product innovation has a positive and significant impact on business performance. Data analysis reveals that SMEs that are able to innovate products effectively tend to achieve better business results. Product innovation, including product development and improvement, is associated with increased competitiveness, product differentiation, and better response to changing market needs.

The results of this research consistently underline the importance of product innovation as the key to achieving superior business performance. This research is in line with that conducted by (Abbas et al., 2024). SMEs that are able to adapt with market trends, producing products that suit consumer desires, and utilizing new technology, has a greater chance of success. Product innovation is not only considered as a response to market demands, but also as a proactive strategy to create added value for customers and control market share.

## **3. Market Environment Variables can mediate the relationship between Entrepreneurial Competence and Business Performance.**

In discussing the possibility of mediating variables, such as the Market Environment, which influence the relationship between Entrepreneurial Competence and Business Performance in the context of SMEs in Gowa Regency, South Sulawesi Province, it can be described as follows:

These findings provide space to discuss the potential role of Market Environment variables as mediating factors in the relationship between Entrepreneurial Competence and Business Performance. The Market Environment, which includes factors such as market stability and level of competition, has the potential to influence the extent of the positive impact of Entrepreneurial Competencies on Business Performance.

In a stable market environment, high levels of Entrepreneurial Competency may be more effective in creating competitive advantage and producing superior business results. At the same time, in a competitive market environment, a high level of Entrepreneurial Competency may be critical in navigating challenges and better exploiting opportunities. When the Market Environment acts as a moderating variable, it can be anticipated that the relationship between Entrepreneurial Competence and Business Performance will vary depending on the level of stability and level of competition in the market. Therefore, SMEs in Gowa Regency need to consider and adapt



their entrepreneurial strategies to specific market environmental conditions to achieve optimal business performance. These findings provide significant insights for entrepreneurs and policy makers to understand the complex dynamics between Entrepreneurial Competence, Market Environment, and Business Performance. The practical implication of the results of this research is the importance of adaptability and differentiation strategies in responding to variability in the market environment for the success of SMEs at the local level.

#### **4. Market Environmental Variables can mediate the relationship between Product Innovation and Business Performance.**

The market environment is a crucial factor that can strengthen or weaken the impact of innovation on SME performance. Based on the results of this research, it shows that the market environment can moderate the relationship between innovation and SME performance. In a stable market environment, product innovation tends to be more anticipated and accepted by consumers, creating opportunities for SMEs to gain competitive advantage and improve business performance. On the other hand, in a dynamic and competitive market environment, challenges arise along with innovation opportunities, and SMEs need to face the risks of market uncertainty. Thus, adapting innovation strategies to suit the characteristics of the market environment becomes essential. According to (Rambe et al., 2023) The success of SMEs in achieving optimal performance depends on their ability to read and adapt to market dynamics, as well as utilize product innovation as a strategic tool to meet demands and expectations consumers in changing market conditions. Therefore, a deep understanding of the market environment not only guides SMEs in designing innovative strategies, but also enables them to respond to market changes with timely and effective responses.

## **CONCLUSION**

The conclusion of this research underscores the crucial role of Entrepreneurial Competence and Product Innovation in influencing the performance of SMEs in Gowa Regency, South Sulawesi. The research results demonstrate that high levels of Entrepreneurial Competency positively and significantly contribute to Business Performance, while Product Innovation also exerts a positive and significant impact on business performance. This understanding provides a foundation for entrepreneurs and policy makers to enhance the quality of entrepreneurship and adopt innovative strategies to strengthen the competitiveness of SMEs.

However, it is essential to acknowledge certain limitations in this study. The research's geographical focus on Gowa Regency might limit the generalizability of the findings to other regions or contexts. Additionally, the use of a quantitative approach may not capture the nuanced intricacies of entrepreneurial competencies and innovation. For future research, exploring diverse geographical areas and employing a mixed-methods approach could offer a more comprehensive understanding of the complex interplay

between entrepreneurial competencies, innovation, and market dynamics within the SME landscape. Furthermore, investigating the role of external factors, such as government policies or industry-specific challenges, could enrich the understanding of the broader contextual influences on SME performance. These considerations could contribute to refining existing strategies and formulating more tailored interventions to support SMEs in navigating the multifaceted business environment. In conclusion, while this research provides valuable insights into the interrelation of these factors at the local level, recognizing and addressing these limitations in future research endeavors will contribute to a more nuanced and comprehensive understanding of SME dynamics.

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