# Influential Indicators and Measurements of Mediating and Moderating Roles on SME Performance

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### **ABSTRACT**

Overcoming the failure of SMEs has been an important research topic. The critical research finding is that it has verified the essential elements of performance improvement. The authors presented a solution to the research question, "Is there a causal relationship between the effect on SMEs' success on capacity and business performance?" They analyzed whether the competence of SMEs had a mediating effect between success variables and performance. Secondary effects were empirically studied by converting independent variables to higher-order component (HOC). The second-order variable of management influenced financial, non-financial, and technical performance, and the second-order variable of technology affected technical performance. As a result of introducing demographic variables as a controlling variable for performance, gender and year of establishment showed a moderating effect on technical and non-financial performance. The authors expect to contribute to practical application to SME CEOs and government policymakers, support organizations, academia, and industry.

### **KEYWORDS**

Influential Indicators, Mediating Effect, Moderating Effect, Performance, SMEs

### INTRODUCTION

Due to the global pandemic of COVID-19 from January 2020, improving the business performance of Small and Medium-sized Enterprises (SMEs) and increasing the survival rate is an essential issue in Korea and the world. In particular, refining influential indicators that can improve performance to activate technology-based SMEs will be academically and practically necessary research. This study began with these research questions and ultimately tried to verify the indicators and measurements of mediating and moderating roles that influence SMEs' performance. To answer these research questions, the purpose of this research is as follows. First, find out and identify the influential indicators in entrepreneurs' capability on competency and performance. Second, empirically prove the effect of SMEs' influential indicators on business performance through competency's mediating effect. Third, empirically verify the impact of competency on business performance. Fourth, using Partial Least Square-Structural Equation Modeling (PLS-SEM), validate the variables affecting the SMEs' performance, and verify causal relationships. Fifth, identifying the degree and difference of demographic variables on performance and providing policymaking results to revitalize SMEs and improve performance. Sixth, applying the Higher-Order Component (HOC) to the five sub-components

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of the capabilities, the independent variable, validates the second-order component's effect on competency and performance. The researcher has been finding out factors and variables, exploring the variables, deriving the key variables, finalizing the research model, and evaluating PLS-SEM. The theoretical research systematically analyzed and organized prior studies related to variables on SMEs' business performance. Literature reviews have identified the disadvantages, problems, and limitations of previous studies. The previous research issues are as follows Entrepreneurs' capabilities can be used as a competitiveness source because competitors do not easily replicate them. Therefore, research has focused on competitiveness and performance (Man et al., 2002; Mitchelmore & Rowley, 2010). Besides, previous studies have provided a wide range of results investigating the relationship between capabilities and business performance (Hashim et al., 2018). For example, it described that entrepreneurial competency positively impacts its performance (Yusuff et al., 2016). Meanwhile, found a weak relationship between entrepreneurial competency and corporate performance (Narkhede et al., 2014). On the other hand, it found that a company's capabilities do not significantly affect its performance (Lopa & Bose, 2014). In this context, further research on this relationship is needed (Mitchelmore & Rowley, 2013). Few empirical studies focused on the link between individual-level competencies and organization-level competitive advantage through potential organization-level mediators. Two recent studies examined the association between entrepreneurial attributes and organizational performance but emphasized the role of corporate activity and performance rather than organizational competency (An et al., 2018; Kantur, 2016; Ng, 2018). To solve previous studies' limitations, revitalize technology-based SMEs, and improve performance, the researcher introduced more complex variables. After reviewing the capability, competency and verified the affection the components on related variables, measurements, and characteristics. By analyzing the influences of variables and confirming the interrelationships, the researcher intended to draw up influential drivers to improve SMEs' performance. According to the six industrial sectors of the Ministry of SMEs and Startups in Korea (Sector 1: electrics/electronics, Sector 2: machinery/parts, Sector 3: IT/SW, Sector 4: chemicals/textiles/materials, Sector 5: life/food, Sector 6: crafts/others), SMEs' influence drivers are not the same. There will be differences, and to verify that there is a difference in the moderating effect according to industries.

# **BACKGROUND THEORY AND HYPOTHESES**

As researcher looked at the effect of variables on the SMEs' competency and performance:

Found that previous studies have failed to comprehensively research the potential, influential drivers such as management capability, technology capability, network capability, exit strategy, technology commercialization competency, and technical marketing competency. Therefore, the variables studied as influential drivers on competency and performance and the effect of SMEs' competency on performance. The researcher established three hypotheses to verify these research questions. Technology and management capabilities were studied as variables influencing SMEs' innovation capability and competitiveness (Hwang et al., 2020). The research model suggested that technological competence will have a positive (+) effect on SMEs' core competencies (Kim et al., 2020). Six types of variables, according to entrepreneurs, were studied (Prohorovs et al., 2019). The entrepreneurial exit strategies were summarized, and the reason for exit and the option of exit were mentioned (De Tienne, 2010). There were nine hypotheses for motivation causation and effectuation for the entrepreneurial exit strategy (De Tienne et al., 2012, July). The researcher conducted Empirical research on the effect of business commercialization and technological innovation on performance (Bae, et al., 2018). Thus, the Researcher summarized the variables expected to affect the entrepreneur's ability to research sporadically in previous studies and excluded external variables such as entrepreneurship education, government support, and investment. In this research, it was necessary to verify the entrepreneurs' capabilities and technical capabilities as variables that influenced the enterprise's performance, excluding external variables. Therefore, it should be essential to verify the

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