

# Managerial Competencies and Innovative Work Behavior in SMEs

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## ABSTRACT

This quantitative correlational study examined the relationship between leaders' managerial competencies and innovative work behaviors (IWB) in small- and medium-sized enterprises (SMEs). The study's target population was human resources managers in SMEs operating in the United States and Singapore. The theoretical foundation for this study was rooted in the resource-based view (RBV) and the theory of competitive advantage. The researcher utilized a non-experimental correlational research design and a purposive sampling method to collect data. The researcher used the online survey platform Centiment to recruit participants for the study. Centiment collected data from 126 participants (63 in the United States and 63 in Singapore). The participants completed a 5-point Likert survey with 5 demographic questions, 17 questions from the Innovative Work Behavior instrument, and 60 questions from the Managerial Skills Assessment Instrument (MSAI). The researcher analyzed the collected data using R Commander software to determine the correlation between the leaders' managerial competencies (independent variable) and innovative work behavior (dependent variable). The results showed a statistically significant positive relationship between the leader's managerial competencies and innovative work behavior (IWB) in SMEs, with a stronger relationship in Singapore than in the United States. This study provided empirical evidence regarding the relationship between managerial competencies and IWB in SMEs. The study's findings indicated that leaders' managerial competencies trigger innovation in SMEs by influencing workplace innovative behavior, and that collective culture has a greater impact on the significance of this relationship than individual cultures. Owners/managers of SMEs and policymakers can benefit from this study's findings to better understand the relationship between managerial competencies and IWB in SMEs, and to build strategies and programs accordingly to enhance innovation and IWB in SMEs. Future researchers in business administration who are interested in investigating leadership and innovation in SMEs can build on the results of this study.

**Keywords:** small and medium enterprises (SMEs), managerial competencies, managerial skills, innovation, innovative work behavior (IWB), resource-based view (RBV), and competitive advantage.

## Introduction/Background

This quantitative, correlational study addresses the problem of limited resources that hinder SMEs' ability to grow and thrive in today's competitive, unpredictable market. SMEs play a vital role in driving economic growth and creating job opportunities, particularly in emerging markets and developing countries, making SME development a high priority for many governments and development institutions worldwide. SMEs represent about 90% of businesses and more than 50% of employment worldwide, making SME development a high priority for many governments worldwide (World Bank, 2024).

Nowadays, market volatility, recurring financial crises, and disruptive technologies put greater pressure on companies to innovate and adapt quickly to meet rapidly changing customer needs and expectations, thereby maintaining their market share and staying competitive. Innovation has become a necessity for any company to remain competitive in the business world. Competition and globalization require business leaders to explore alternative approaches to doing business, developing unique products and services that can enhance market share, ensure sustainability, and create a competitive advantage (Alshebami, 2021). However, SMEs, especially in developing countries, face challenges in accessing financial and physical resources to compete effectively in today's dynamic market. SMEs suffer from inadequate resources for innovation, as they face challenges in acquiring advanced technologies or expertise and are constrained by their size, which limits their ability to operate at an economic scale. A lack of managerial competencies in SMEs, such as adaptability and innovation, negatively impacts the performance of SMEs, resulting in resource loss, an unproductive workforce, and ultimately, bankruptcy and business closure. So, there is a need to investigate the strategic resources that SMEs can identify and develop internally to build a competitive advantage around their core competencies. Human resources are naturally unique, and when developed, they can invent new methods of doing business and utilize the organization's resources efficiently and effectively to produce differentiated products and services. Managers/Owners are leaders in SMEs, and their managerial competencies have a broad impact on innovation processes and on SME competitiveness. Managers in SMEs, as leaders of innovative processes within the company, play a crucial role in stimulating innovative work behavior (IWB) among employees. The effectiveness of this leadership depends on the managerial skills and competencies of the leaders. Leaders' competencies can lead to organizational success, while their incompetence can lead to failure in a competitive business environment (Damianus et al., 2022). Many companies that cannot innovate and adapt to continuous business changes due to a lack of skilled leaders and innovative employees have closed or lagged, losing market share.

## Literature Review

There is limited literature regarding the relationship between the leaders' managerial competencies and innovative work behavior in SMEs. Most SMEs struggle to secure sufficient resources to mitigate the negative impacts of a global crisis on their operations, particularly compared with large firms (Zutshi et al., 2021). Today, SMEs must adopt survival strategies to address the various global challenges that impact their performance, including international market competition, global financial crises, the emergence of multinational and transnational corporations, and trade wars (Gamage et al., 2020). While globalization poses challenges, such as increased competition and exposure to external economic crises, it also presents new

expansion opportunities and enables SMEs to reach a broader customer base (Iqbal & Khan, 2023). Unlike large multinational companies, SMEs offer more radical innovations due to their innate agility and flexibility in responding to rapid market changes. Accordingly, SMEs can thrive when they can identify and develop their strategic resources and adopt an innovative culture to offer differentiated goods and services. Adla et al. (2020) argued that human resource management (HRM) in SMEs tends to be centered on leaders whose personal characteristics and attitudes toward risk and change influence HRM and innovation within the organization.

To address the problem of limited resources in SMEs that impact their innovation and success in today's competitive market, this study poses two guiding questions: 1) "Do management competencies (independent variables) have a statistically significant relationship with innovative work behavior (dependent variable) in SMEs?" and 2) "Does the relationship between managerial competencies (independent variable) and innovative work behavior (dependent variable) differ significantly between SMEs in the USA and SMEs in Singapore?". To better understand the relationship between the study variables, the researcher examined scholarly research material from Columbia Southern University Online Library and Google Scholar using keywords such as *small and medium enterprises* (SMEs), *managerial competencies*, *managerial skills*, *innovation*, *innovative work behavior* (IWB), *resource-based view* (RBV), and *competitive advantage* to guide database searches. The following sections provide an overview of the theoretical framework and key concepts employed in this study.

### ***Resource-Based View (RBV) and the Theory of Competitive Advantage***

The researcher employed the resource-based view (RBV) and the theory of competitive advantage to frame the study. RBV has become dominant within the field of strategic management, and its strength lies in its ability to assist researchers by revealing how organizations can utilize productive resources to generate economic benefits and defining the attributes of resources that can help generate sustainable benefits (Davis & DeWitt, 2021). The RBV, as proposed by Barney (1991), asserts that a company's sustained competitive advantage is rooted in its valuable, rare, inimitable, and irreplaceable resources. RBV states that developing unique capabilities and resources enables businesses to deliver superior offerings and gain a competitive advantage (Mashavira & Chipunza, 2021).

Competitive advantage theory, developed by Michael Porter in 1985, suggests that businesses can obtain a competitive advantage and determine their market position by either selling products at a lower price or through differentiation (Daniela, 2014). Recently, traditional competitive advantage strategies, such as cost leadership and market differentiation, have been replaced by strategies that emphasize capabilities and resources as key factors for sustainable competitive advantage (Heriyanto et al., 2021). Competitive advantage is created from resources and capabilities owned and controlled within a specific organization (Willis et al., 2022). Developing key managerial competencies — such as communication, leadership, and teamwork — ensures business continuity (Kabii & Kinyua, 2023), enabling SMEs to enhance performance, foster innovation, and successfully enter international markets. Many researchers (e.g., Heriyanto et al., 2021; Igwe et al., 2024) have emphasized the importance of generating and implementing new ideas to support innovation in unstable, digital markets; otherwise, organizations will be overtaken by competitors that can generate novel, superior ideas.

The theoretical foundation based on the RBV and competitive advantage theory is relevant to many SMEs that possess unique human capital. Developing intangible resources,

such as human resources, which are valuable, inimitable, non-substitutable, and non-transferable, enables companies to achieve a sustainable competitive advantage (Barney, 1991; Mashavira & Chipunza, 2021). The study by Emmanuel et al. (2023) most recently validated the resource-based view, demonstrating that developing and capitalizing on internal, inimitable resources and capabilities, such as human capital, creates wealth and value, providing the organization with a competitive advantage. Therefore, there is a need for leaders who can create competitive advantage through the organization's core competencies and adapt to a rapidly changing competitive market (Willis et al., 2022).

In SMEs, managers are the leaders who stimulate innovative work behavior (IWB) and guide their followers to try new things. Competent leaders can anticipate and meet customers' needs, generate new ideas to sustain the organization, and adopt technologies that benefit the business and boost performance (Asghar et al., 2023). In addition, an innovative culture is a critical component of innovative behavior, and innovation activities help SMEs grow, expand, and overcome the challenges posed by limited resources, especially in developing countries (Bokhari, 2022). Therefore, understanding the concepts of managerial competencies and IWB, and how the two relate, is necessary to comprehend the impact of managerial competencies on IWB in SMEs.

### ***Managerial Competencies***

There are many definitions and multidimensional views of managerial competencies in the management literature. Managerial competencies is a set of skills, attitudes, knowledge, and behavior that enable individuals to be effective in doing their jobs (Mashavira & Chipunza, 2021). From a human resources perspective, managerial competencies encompass a manager's ability to determine, develop, and deploy organizational resources, converting them into valuable products and services that add value for organizational stakeholders (Ncube & Chimucheka, 2019, as cited in Kabii & Kinyua, 2023). Majadibodu et al. (2023) emphasized the role of managerial skills, such as communication, positive working relationships, and effective leadership, in cultivating a culture of innovation in SMEs. In contrast, Lara et al. (2020) argued that managerial competencies reflect behaviors associated with human values that may be the same or differ among various cultures. Asghar et al. (2023) demonstrated that managerial skills enhance motivation and provide proper guidance for managing an organization's resources, ultimately leading to a competitive edge. Emmanuel et al. (2023) found that managerial competencies affect the performance of small-scale businesses in Nigeria. The authors concluded that managerial competencies are a unique strength for managers in small-scale businesses, and that developing these competencies would improve organizational performance. On the other hand, Alharbi (2021) emphasized the critical role of innovative leadership in maintaining the organization's competitiveness in today's uncertain and changing market. The author added that various characteristics of innovative leadership, such as open-mindedness, confidence, action orientation, delegation, and collaboration, enable leaders to inspire others and influence their behavior toward achieving the organization's goals. Managerial competencies can drive innovation by enabling managers to identify new opportunities, develop innovative offerings, adapt to changing market conditions, lead their teams, and encourage employees to adopt new processes, thereby ensuring competitiveness (Igwe et al., 2024).

### ***Innovative Work Behavior (IWB)***

Innovative work behavior (IWB) refers to an individual's behavior that supports the initiation, exploration, championing, and implementation of ideas to generate innovative outcomes (De Jong & Den Hartog, 2010). Innovative behavior emphasizes a creative attitude and transitioning from traditional to advanced perspectives (Loi, 2024). IWB includes generating, promoting, and implementing inventions, applying new work methods, and offering improved services and products (Sutardi et al., 2022).

Many studies have linked IWB to organizational performance and competitive advantage, as innovation enables organizations to maximize the benefits of limited resources. For example, Sutardi et al. (2022) noted that employees' innovative work behavior is crucial for an organization's competitive advantage, and there is a need to identify and improve the factors that influence IWB. Igwe et al. (2024) emphasized the importance of innovation as a key contributor to organizational competitiveness, stating that developing employees' knowledge and skills would enhance innovation activities within organizations. A lack of innovative employees hinders the organization's ability to adapt to continuous business changes, resulting in a loss of market share and potential failure. Innovation is essential for the survival and growth of SMEs in a world characterized by intense competition, rapid technological advancements, and recurring crises (Adam & Alarifi, 2021). On the other hand, Asghar et al. (2023) illustrated how product innovation contributes to organizational success and sustainability by reducing production time and costs, generating new ideas to offer unique goods and services that meet customers' needs, and improving firm performance and productivity. IWB helps organizations gain a competitive advantage in dynamic environments and establish sustainability by exploring solutions and opportunities (AlEssa & Durugbo, 2022). There is a relationship between employee perceptions of the organization's innovation climate and their innovative behavior, and leadership characteristics, such as transformational leadership, influence the organization's innovation climate (Newman et al., 2020).

### ***Managerial Competencies and IWB***

Many researchers (e.g., Afsar & Umrani, 2020; Badir et al., 2020; Shah et al., 2020) have provided empirical evidence that leadership style and competencies influence employees' innovative work behavior. Human resources management competencies lead to improvements in employees' IWB (Srirahayu et al., 2023) because competent leaders positively influence employees' creative and innovative work behavior, encouraging them to recognize opportunities and use creative methods to benefit their organization (Sarwoko, 2020). Therefore, organizations can train their supervisors to enhance their leadership competencies and improve perceptions of fairness, thereby stimulating idea generation and implementation among employees and enhancing IWBs in the workplace (Muchiri et al., 2020). The study by Grošelj et al. (2020) found that leaders with higher self-awareness can enhance their followers' positive psychological capital and increase followers' self-confidence, enabling them to innovate and take on new challenges. Recently, Igwe et al. (2024) concluded from their empirical study of mobile telecommunication in Nigeria that managerial competencies positively moderate the relationship between innovation and competitiveness. On the other hand, Knezović and Drkić (2021) concluded that psychological empowerment, participation in decision-making, and organizational justice are positively associated with IWB. Furthermore, transformational leaders

can improve employees' attitudes toward the organization because employees often associate the organization's core values with their leader.

### ***Small and Medium Enterprises (SMEs)***

There are many definitions of SMEs worldwide. In this study, an SME is defined as an independent, resource-constrained company that is labeled a small firm, an SME, an international new venture, or a new venture (Zahoor et al., 2020). The growth of SMEs is crucial for advancing innovation, creating employment opportunities, and reducing poverty (Majadibodu et al., 2023). A lack of financial resources and limited administrative and technical capacities expose SMEs to numerous difficulties and challenges in a world of intense competition, rapid technological change, and recurring crises (Adam & Alarifi, 2021). As a result, managers in SMEs need to optimize their companies' innovation and agility to continue operating amid crises (Rahman et al., 2022). Majadibodu et al. (2023) demonstrated that SMEs in South Africa face difficulties surviving because they lack the resources to compete with big companies. The authors suggested that government support, such as training in business and managerial skills, would reduce the high failure rate of SMEs in South Africa. SMEs need to develop their managers' business management skills, including leadership and human resources management, through learning and networking to achieve their objectives and contribute to economic growth (Majadibodu et al., 2023).

Managerial skills and competencies significantly impact knowledge acquisition and innovation—they are essential for anticipating and meeting customers' needs, generating new ideas to sustain the organization, and adopting technologies that benefit the business and boost performance (Asghar et al., 2023). SMEs can create a competitive advantage by boosting innovative behavior among their employees (Knezović & Drkić, 2021). Although SMEs are valuable innovators due to their flexible structure, most research has focused on IWB in large companies, leaving a lack of literature on this topic in SMEs, especially in developing countries that face the most significant innovation challenges (Knezović & Drkić, 2021).

### ***Managerial Competencies and IWB in SMEs***

Several studies (e.g., Byukusenge et al., 2021; Loufrani-Fedida & Aldebert, 2021; Modi & Rawani, 2020) connect managerial competencies to innovative work behavior in SMEs. Strong leadership and effective managerial competencies in SMEs are essential to stimulating innovation and maintaining the organization's competitiveness and growth (Majadibodu et al., 2023). Emmanuel et al. (2023) argued that the key challenge facing SMEs in developing countries is the mismanagement of internal and external resources, as managers in these companies lack the managerial competencies, interpersonal, and cognitive that enable them to innovate and sustain the organization's survival and growth.

An empirical study by Bokhari (2022) on SMEs found that innovation culture significantly moderates the association between financial capital, experience, R&D, and firm economic performance. On the other hand, a study by Sawaeen and Ali (2020) on Kuwait's SMEs found that entrepreneurial leadership facilitates the formulation of innovation strategies and processes to develop SMEs' competitive advantage. Managerial competencies and innovative behaviors tend to be more sensitive to prevailing national cultures in small companies than in large ones because the relationships between managers and their subordinates are more

informal. While American society is generally perceived as individualistic, Singaporeans and other Asian countries tend to hold collectivistic values (Ayeh et al., 2016).

## **Methods**

The target population of this study was the human resources managers working in SMEs in the USA and Singapore. The study was conducted to determine whether there is a relationship between leaders' managerial competencies (independent variable) and innovative work behavior (dependent variable), and whether this relationship differs between SMEs in the USA and in Singapore.

### ***Research Questions and Hypotheses***

The research questions and hypothesis that drive this study are as follows:

RQ1: Do managerial competencies (independent variable) have a statistically significant relationship with innovative work behavior (dependent variable) in SMEs?

H10: Managerial competencies (independent variable) do not have a statistically significant relationship with innovative work behavior (dependent variable) in SMEs.

H1A: Managerial competencies (independent variable) have a statistically significant relationship with innovative work behavior (dependent variable) in SMEs.

RQ2: Does the relationship between managerial competencies (independent variable) and innovative work behavior (dependent variable) differ significantly between SMEs in the USA and SMEs in Singapore?

H20: The relationship between managerial competencies (independent variable) and innovative work behavior (dependent variable) does not differ significantly in SMEs in the USA and SMEs in Singapore.

H2A: The relationship between managerial competencies (independent variable) and innovative work behavior (dependent variable) differs significantly in SMEs in the USA and SMEs in Singapore.

In this study, the researcher used a cross-sectional quantitative method and applied a non-experimental correlational research design to examine the relationship between managerial competencies (independent variable) and innovative work behavior (dependent variable) in SMEs operating in the USA and Singapore. The research focuses on the managerial competencies of human resources managers in SMEs in the USA and Singapore and on how these competencies relate to innovative workplace behavior. The USA and Singapore differ in location, stage of economic development, and culture. Investigating the relationship between managerial competencies and innovative work behavior in two locations with different cultures is beneficial for obtaining comprehensive results and understanding how this relationship varies across countries with distinct cultural backgrounds.

### ***Instruments***

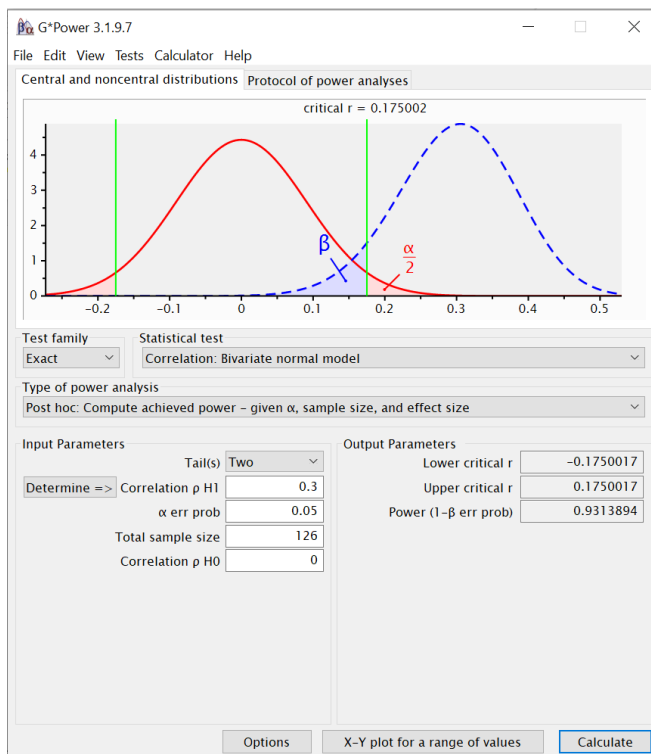
The researcher used the Innovative Work Behavior (IWB) instrument, developed by De Jong and Den Hartog (2010), to measure the IWB variable and the Management Skills Assessment Instrument (MSAI), developed by Kim S. Cameron, to measure the managerial

competencies variable. The researcher obtained permission from the creators of the instruments to use them in this study. The Innovative Work Behavior Instrument focuses on four related dimensions of IWB: the exploration, generation, championing, and implementation of ideas. The MSAI questionnaire, developed by American researchers Cameron and Quinn, is used to assess managerial competencies. It contains 60 descriptions of behaviors, organized into 12 competencies, covering areas such as managing interpersonal relationships, teams, and employee development (Roszyk-Kowalska, 2016). The two instruments are valid and reliable, having been used by numerous researchers.

### *Sample Size and Data Collection*

The researcher used the G\*Power software to determine the required sample size for the study. To detect a correlation coefficient of  $r = 0.3$  with 90% power ( $\alpha = .05$ , two-tailed), G\*Power suggests 109 participants are required to avoid committing a type I and type II. After receiving IRB approval, the researcher requested that Centiment, the online survey platform, initiate data collection from a sample of human resources managers of SMEs operating in the United States and Singapore. Centiment sent invitations to participate in the survey from November 25, 2024, to December 12, 2024, and collected 126 responses (63 from the United States and 63 from Singapore). Figure 1 shows that 126 participants completed the study, and the G\*Power calculation yielded a power of 0.93, exceeding the required 0.80.

**Figure 1**  
*Post Hoc G\*Power Calculation*



*Note.* Test conducted after the study.

## Analytical Methods

In this study, the researcher used R Commander software to analyze the collected data. The researcher used the R Commander scale reliability test to calculate the survey reliability and the Anderson-Darling normality test to determine if the data were normally distributed. The Spearman correlation coefficient was used to test the hypothesis because the two variables were not considered normally distributed. The researcher used correlation analysis to determine the relationship between the two study variables (managerial competencies and IWB).

## Results and Discussion

According to the results, the 17 questions of the IWB instrument demonstrated internal consistency and reliability, with an alpha reliability of 0.9185 and a standard reliability of 0.9197. Similarly, the 60 questions of MSAI showed internal consistency and reliability, with an alpha reliability of 0.9731 and a standard reliability of 0.9736.

The researcher used the Anderson-Darling test to assess deviations from normality in the study. The test results indicated that the two variables were not normally distributed, as evidenced by a p-value  $< 0.05$  (Table 1). A p-value less than 0.05 indicates that the data are not normally distributed (Paramasivam et al., 2024).

**Table 1**

### *Anderson-Darling Normality Test*

Study Variables	Anderson Darling	
	A	P-Value
Innovative Work Behavior	0.94724	0.01608
Managerial Competencies	1.1296	0.00568

*Note.* The p-values indicate that the data for the two variables were not normally distributed.

### *Correlation Test Between Managerial Competencies and IWB Variables*

The result of the Anderson-Darling test, as shown in Table 1, indicates that the p-value is less than 0.05, indicating a significant deviation from normality, and that the IWB and managerial competencies variables were not normally distributed. Accordingly, the researcher used the Spearman correlation coefficient rather than the Pearson correlation to assess the relationship between the study variables. Table 2 illustrates a significant positive correlation of 0.81 between managerial competencies and IWB variables with a corresponding p-value  $< 0.05$ .

**Table 2**

### *Correlation of Variables using the Spearman Method*

		Innovative Work Behavior	Managerial Competencies
Innovative Work Behavior	Sig. (2-tailed)	1.0	0.81

Managerial Competencies	Spearman correlation Sig. (2-tailed)	0.81	1.0
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*Note.* There is a positive and significant correlation of 0.81 with a corresponding p-value < 0.05

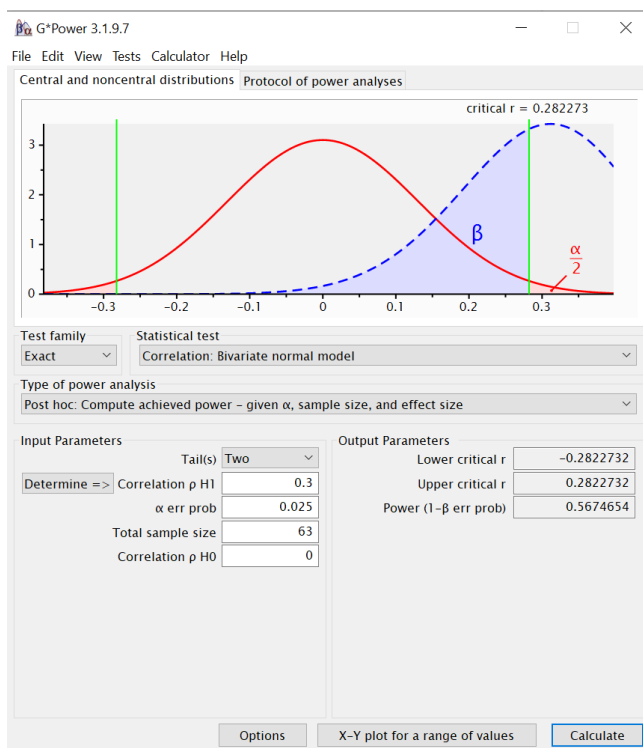
### ***Comparing the Correlation Between the Two Variables in the United States and Singapore***

The purpose of the correlation test in each country was to compare the two countries within the same study and determine if the relationship between the study variables in the United States differs from that in Singapore.

Because the researcher used the same two variables twice in the study, the Bonferroni correction was applied to calculate the new type 1 and type 2 error rates for comparisons between the two variables in each country. The new type 1 error rate equaled .025 (0.05/2). The researcher used 63 participants from each country to answer the second research question, aiming to compare the two countries based on the value of  $r$  in each country. Figure 2 illustrates that 63 participants from each country completed the study. The G\*Power calculation yielded a power of 0.57, which fell short of the required 0.80 for a correlation study. This underpower was one of the study's limitations and will be discussed in the recommendation section.

## **Figure 2**

### *Post Hoc G\*Power Calculation*



*Note.* Test conducted after the study.

Table 3 and Table 4 present the results of using data from 63 participants in each group (Singapore and the United States) to calculate the correlation coefficient between the two variables (managerial competencies and innovative work behavior) for each country.

**Table 3**

*Correlation of Variables in Singapore Country using the Spearman Method*

		Innovative Work Behavior	Managerial Competencies
Innovative Work Behavior	Sig. (2-tailed) Spearman correlation	1.0	0.85
Managerial Competencies	Sig. (2-tailed)	0.85	1.0

*Note.* There is a positive and significant correlation of 0.85 with a corresponding p-value < 0.05

**Table 4**

*Correlation of Variables in the United States using the Spearman Method*

		Innovative Work Behavior	Managerial Competencies
Innovative Work Behavior	Sig. (2-tailed) Spearman correlation	1.0	0.71
Managerial Competencies	Sig. (2-tailed)	0.71	1.0

*Note.* There is a positive and significant correlation of 0.71 with a corresponding p-value < 0.05

Spearman's rank correlation coefficient was used to test the monotonic relationship between the study's two variables in each country. The results indicated a positive, significant correlation of 0.85 in Singapore and 0.71 in the United States, with corresponding p-values < 0.05. Table 3 and Table 4 illustrate a strong positive correlation between the two variables across the two countries, with a higher correlation in Singapore.

### ***Summary of the study results***

There was a significant positive correlation between the variables,  $r(124) = 0.81$ , with a corresponding p-value < .001. Additionally, Spearman's rank correlation coefficient, rho, was used to assess the relationship between managerial competencies and IWB variables for each group in the study (the United States and Singapore). The correlation results showed a positive, significant correlation between the variables in each group, with  $r(61) = 0.85$  and  $p < .001$  in Singapore, and  $r(61) = 0.71$  and  $p < .001$  in the United States.

Consequently, H1A was confirmed, and the null hypothesis, H10, was rejected. There is sufficient evidence, at the 0.05 level of significance, to conclude that a strong positive relationship exists between the leader's managerial competencies and innovative work behavior (IWB) in SMEs operating in the United States and Singapore. H2A was confirmed, and the null

hypothesis, H20, was rejected. There is sufficient evidence, at the 0.025 level of significance, to conclude that the relationship between the leader's managerial competencies and innovative work behavior (IWB) is significant in SMEs in the USA and SMEs in Singapore, and this relationship in Singapore is higher than that in the United States.

## **Implications/Recommendations and Conclusions**

In this study, the researcher aimed to fill the gap in the literature by investigating the relationship between leaders' managerial competencies and innovative work behavior in SMEs, through the lens of the resource-based view (RBV) and competitive advantage theory. The study validated the assumptions of the resource-based view (RBV) and the competitive advantage theory, which posits that identifying and developing strategic resources that are valuable, rare, inimitable, and irreplaceable can lead to a sustainable competitive advantage within an organization. Developing core competencies in SMEs, such as managerial competencies, would enhance the quality of human resources within the organization and optimize their contribution to the organization's success and growth.

The findings of this study suggest that leaders' managerial competencies stimulate innovation in SMEs by influencing innovative work behavior in the workplace. Future researchers in business administration can build on the results of this study, and owners/managers of SMEs can benefit by understanding the key factors that stimulate innovative behavior in the workplace and by designing programs and training to improve managerial competencies. The findings of this study also highlight the impact of national culture on the relationship between leaders' managerial competencies and innovative work behavior in SMEs, indicating that this relationship is stronger in Singapore, where a collectivist culture prevails. Cultural dimensions, including individualism and collectivism, impact innovative work behavior (Yang et al., 2024).

### ***Theoretical Implications***

This study contributes to the business administration literature by advancing understanding of the relationship between leaders' managerial competencies and IWB in SMEs operating in two countries with distinct economic development and cultural contexts (the United States and Singapore). The findings of this study provide empirical evidence of a statistically significant positive relationship between managerial competencies and IWB in SMEs in the United States and Singapore, with the relationship being stronger in Singapore. This study enriches the limited body of literature that relates leaders' managerial competencies to innovative work behavior in SMEs and responds to the calls from previous researchers who emphasized the need for further studies to examine how leadership relates to innovation and innovative work behavior, particularly in SMEs (e.g., Alharbi, 2021; Castillo-Vergara & Lema, 2022; Muchiri et al., 2020).

This study contributed to RBV and the competitive advantage theory. RBV is relevant to many SMEs that possess valuable, rare, and irreplaceable human capital. According to the competitive advantage theory, companies can create a competitive advantage by enhancing the value of their resources and internal capabilities (Daniela, 2014). Developing human resources enables companies to gain a competitive edge. Developing employees' knowledge and skills enhances innovation in organizations, a key contributor to organizational competitiveness (Igwe

et al., 2024). Emmanuel et al. (2023) noted that developing and leveraging internal inimitable resources and capabilities, such as human capital, would add value to the organization and create a competitive advantage.

This study validated that intellectual internal resources, such as managerial competencies, are key drivers of innovative work behaviors in SMEs, leading to continuous innovation and a sustainable competitive advantage. Leaders' actions and behaviors significantly impact innovation within an organization by encouraging followers to think critically and by allowing new ideas to flow across business units, ultimately leading to a competitive advantage (Alblooshi et al., 2021).

This study also demonstrated that internal organizational resources, such as managerial competencies, innovative work behavior, and culture, are the most important factors in organizational success, particularly in SMEs. The study illustrated that the relationship between leaders' managerial competencies and IWB is significant in individual and collective cultures. However, this relationship is more significant in collective cultures where leaders are more supportive and emphasize collective interests over individual interests. This study provides empirical evidence that national culture significantly affects the relationship between leaders' managerial competencies and IWB in SMEs, and that collectivistic cultures strengthen this relationship more than individualistic cultures. Leaders' collectivist orientation has a significantly positive effect on employees' innovative behavior (Yang et al., 2024). Leaders with a collectivist orientation tend to prioritize their team members' collective interests, focus on collective goals, and motivate their employees to engage in innovative activities that contribute to organizational competitiveness and growth (Yang et al., 2024). In collectivistic cultures, leaders tend to focus more on collective achievements than in individualistic cultures, and they encourage collaboration among team members and the exchange of ideas to develop novel products and services in the organization's best interest. The findings of this study thus enrich the literature on business administration and can guide researchers interested in continuing research on the relationship between managerial competencies and innovation in SMEs.

### ***Implications for Professional Practice***

The results of this study suggest a significant positive relationship between leaders' managerial competencies and IWB in SMEs. The findings of this study can thus assist owners/managers of SMEs in understanding the company's unique resources and how innovations can achieve sustainable competitive advantage by leveraging these resources creatively. Owners/managers of SMEs must understand the key managerial competencies that stimulate innovation and innovative behavior within their organizations to create a competitive advantage and ensure survival and growth in an ever-changing, competitive market environment. Organizational leaders must enable their employees' innovative behavior to deliver innovative services, products, and work processes, thereby sustaining their organization's competitiveness in global markets (Tan et al., 2021). Leaders can influence and drive innovation in SMEs, and their skills and leadership impact employees' tendencies to experiment and adopt innovative practices (Modi & Rawani, 2020).

The findings of this study suggest that SMEs can overcome their financial resource constraints by investing in human capital. Developing leaders' managerial competencies in SMEs is crucial to creating a productive, innovative workforce that ensures the organization's survival and growth. Leaders' managerial competencies are essential for stimulating innovation. The lack

of competent leaders within an organization can result in a lack of innovative work behavior and unmotivated, unproductive employees, which in turn affects the organization's ability to cope with continuous business changes and can lead to a loss of market share and organizational failure.

Through effective communication and interaction with team members, leaders can understand customers' pain points, demands, and expectations, and then direct their team members to creatively and innovatively solve business problems, thereby maintaining the company's competitive advantage. A competent leader can also identify team members' skills and synthesize them through effective communication, knowledge sharing, and collaboration to develop new ways of working and deliver innovative products and services. The findings of this study also help owners/managers of SMEs, especially those operating in developing countries where access to financial resources is difficult, to identify and develop internal resources that can accumulate in the organization to create a competitive advantage. Investing in human capital generates greater benefits than investing in other resources because it leads to an innovative, productive workforce that can maximize the organization's resources through creativity and innovation. Policymakers, especially in developing countries, can also benefit from this study's findings and adopt strategies to develop leaders' managerial competencies in SMEs, thereby enhancing innovation and increasing their ability to grow locally and globally, ultimately leading to greater economic growth and new employment opportunities.

### ***Recommendations for Future Research***

Future studies are needed to examine the relationship between the study variables using different methods and analyses. Replicating the study across different contexts and locations can yield more comprehensive and up-to-date results. This study also has limitations that may influence the interpretation of the results and impact the ability to generalize the study findings. Discussing these limitations may help future researchers to consider expanding on this study by examining different variables, geographic locations, and demographics. For example, using the same sample size to answer both study questions resulted in an underpowered correlation analysis for the second question, as 102 participants per country were required to achieve a minimum power of 0.80. This underpower was one of the study's limitations, which the researcher could not avoid, as the study's primary question was to determine if there is a relationship between managerial competencies and IWB in SMEs operating in the United States and Singapore. The purpose of the correlation test in each country was to answer the second question of the study: to compare the two countries and determine whether the significance of the relationship between the study variables in Singapore differs from that in the United States. Therefore, future research is needed to test the significance of the relationship between the study's variables in each country, using a sample size that achieves a minimum power of 0.80 for correlation analysis, thereby yielding more rigorous results. There is also a need for further research to replicate the study in other contexts and regions, to better understand how culturally specific attitudes and behaviors, which vary across countries, impact innovative work behaviors in SMEs and how cultural differences influence managerial skills and decision-making.

Using a correlational design to examine the relationship between two variables in this study provided the researcher with the direction and strength of the relationship. However, a correlation design cannot generate predictions. Therefore, future researchers can use regression analysis to examine the relationships among the study's variables and to generate predictions.

Similarly, although a quantitative approach was most appropriate for the purpose and scope of this study, a qualitative approach in future studies could allow researchers to gain a deeper understanding of the relationship between leaders' managerial competencies and innovative work behavior and to answer questions about thoughts and experiences.

The present study adopted a cross-sectional research design, limiting its ability to draw causal inferences. So, Future studies could focus on longitudinal or experimental research designs. This study provides a reference for subsequent research examining how emerging technologies and AI adoption reshape the managerial competencies required of SME leaders in the digital era. Advanced technologies, such as artificial intelligence (AI), machine learning, blockchain, cloud computing, and data analytics, are becoming increasingly indispensable for SMEs to succeed and grow in a competitive market. Advanced technologies, for instance, enable organizations to operate efficiently, improve decision-making, drive innovation, and respond quickly to customer and market demands. Advances in technologies also impact behaviors and relations in the workplace. Therefore, further research can investigate how the adoption of advanced technologies and AI affects the relationship between managerial competencies and IWB in SMEs.

### ***Recommendations for Practice***

This study provided empirical evidence of a significant positive relationship between leaders' managerial competencies and innovative work behavior in SMEs. Therefore, owners/managers of SMEs should prioritize recruiting and retaining competent leaders with the necessary education, skills, and experience to positively influence innovative work behavior within SMEs, thereby maximizing the organization's resources. Today, innovation is essential in the current business environment, and creating an IWB is more than asking employees to generate and implement new ideas; it is about fostering a culture of creativity and a healthy work environment where people feel engaged, empowered, and rewarded for their innovative efforts. Moreover, competent leaders hold the key to unlocking the creative potential of their employees, especially in SMEs, where leaders are more closely connected to their subordinates and, through their skills, actions, and behaviors, influence their subordinates' tendency to generate, implement, and champion new creative and innovative ideas.

SMEs can effectively leverage their internal intellectual resources, such as leaders' managerial competencies, to enhance innovative behavior and create a competitive advantage. This study suggests that managerial competencies serve as strategic resources in SMEs. Therefore, Human resources departments in SMEs must engage in continuous learning and improvement to address the current and potential challenges facing the business environment. SME owners/managers need to regularly assess their managerial competencies and design training programs to bridge the gap between existing and required managerial competencies. They should also develop their leaders' skills and competitiveness to adapt to technological and market changes. Leaders in SMEs must also offer a healthy example for their teams and create a positive work environment where people can perform at a high level, embrace experimentation, generate innovative ideas, and achieve organizational goals. In SMEs, leaders act as coaches and mentors to foster IWB among their followers, encouraging them to pursue new and valuable initiatives at work without fear or resistance (Tan et al., 2021). Additionally, leaders' skills and characteristics significantly influence business resilience and adaptation during turbulent periods. For example, entrepreneurial leaders can foster an innovative atmosphere in their organization by

reinforcing creativity and implementing new ideas to develop novel products (services) that create a competitive advantage (Ishak et al., 2021).

Rapid technological changes significantly impact business management and the way people act and behave. Disruptive technologies affect the relationship between leaders' managerial competencies and innovative work behavior. In the current competitive market environment, leaders need to develop their managerial competencies, including communication, networking, and collaboration, to enable their teams and organizations to adapt quickly and effectively cope with changing market conditions. Building stronger relationships with employees in all units and fostering innovation among them would enable SMEs to maintain and increase their market share in a competitive market.

Today, competent and skilled leaders can harness the full potential of advanced technologies and AI innovations, integrate them into business decision-making processes, and create an environment conducive to successful digitization. Leaders play a crucial role in driving and implementing digital transformation (DT) and AI technologies within their organizations, leveraging their ability to influence organizational culture, allocate resources, and align technological advancements with business objectives (Bevilacqua et al., 2025). In addition, disruptive technologies like AI enable leaders to automate repetitive tasks, focus more on interpersonal relationships, and spend more time motivating, supporting, and guiding their team members. Adaptation and transformation skills for leaders in SMEs can help build business networks and collaborative partnerships that facilitate the acquisition of advanced technologies, optimize resource use, foster innovation, and enable adaptation to evolving markets without straining the organization's budget. Collaboration with suppliers, customers, universities, and international competitors is a key source of knowledge, facilitating innovation in SMEs (Audretsch et al., 2023).

SMEs need to adopt survival strategies, develop strategic resources, such as managerial competencies, and cultivate an innovative culture to offer differentiated goods and services that exceed customers' expectations, thereby navigating rapid market changes and maintaining the organization's competitiveness. Therefore, owners/ managers of SMEs need to invest heavily in human resources to acquire the competencies necessary to stimulate creativity and innovation, thereby reducing the high failure rate of SMEs. It is essential to cultivate an innovative culture before adopting new technologies, as implementing them requires leaders who are innovative, transformational, and adaptive to drive change within the organization. Managers/owners of SMEs must focus on factors that positively impact IWB to create an environment that facilitates innovation (Marampa et al., 2024). In addition, leaders who embrace and encourage innovation would contribute positively to their nation's domestic income and create a lasting positive impact on communities by offering new products and services to meet customers' changing demands, utilizing innovative methods that conserve limited natural resources, reduce air and water pollution, and preserve the environment.

Policymakers need to adopt strategies and design training programs that improve leaders' managerial competencies in SMEs operating in their countries. Enhancing leaders' managerial competencies would boost creativity and innovation in SMEs, making them more effective in contributing to economic growth and creating new job opportunities, thereby achieving social stability and welfare for both local and global communities.

## **Conclusion**

The results of this study indicate a statistically significant positive relationship between leaders' managerial competencies and innovative work behavior (IWB) in SMEs in the United States and Singapore. Notably, this relationship is more pronounced in Singapore than in the United States. The findings of this study fill a gap in the business administration literature and serve as a reference for future researchers interested in leadership and innovation in SMEs. The knowledge and findings of this study benefit practitioners, such as owners/ managers of SMEs, and policymakers interested in enhancing the performance of SMEs, particularly those operating in developing countries.

Today, innovation is the work of effective teams. SMEs that cultivate competent leaders and innovative employees are more likely to overcome the problem of insufficient resources and create a competitive advantage to succeed and grow in today's competitive and dynamic market. Investing in developing leadership will yield greater benefits than investing in physical resources, because human resources, due to their uniqueness, can optimize the benefits generated by other resources and transform them into valuable products and services that better satisfy customers' demands and expectations than competitors'. Competent leaders can foster a positive culture among their team members and unlock their innovative potential, thereby enhancing SME performance and ultimately contributing to economic growth and community well-being.

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