

Revitalising Business Sustainability through Full-Range Leadership Approach: A Supply Chain Management View

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Abstract: The COVID-19 pandemic had a profound impact on small and medium enterprises (SMEs) worldwide, particularly those in emerging economies, disrupting their operations and affecting their sustainability. However, most SMEs were not able to utilize effective leadership to enhance their resilience and navigate the crisis successfully. This study aims to examine the relevance of the Full-Range Leadership Model in understanding the relationship between leadership styles and business sustainability, in the context of operations and supply chain management. The study used a cross-sectional survey approach with a purposive sampling technique to collect data from 214 SMEs in Malaysia. The findings of this study suggest that transformational and transactional leadership styles are significant and positive factors that contribute to business sustainability. On the other hand, laissez-faire leadership is a significant and negative factor that hinders the development of business sustainability and resilience. Therefore, SMEs should incorporate and leverage different leadership styles to strengthen their resilience in the post-pandemic work economy. This study has important implications for SMEs to improve their sustainability and resilience in the face of future crises. By adopting effective leadership styles, SMEs can improve their resilience, build their capacity to adapt to changes and enhance their long-term sustainability.

Keywords: *Sustainability; Resilience; Leadership; Small-medium enterprise, Supply chain.*

1. Introduction

The COVID-19 pandemic has severely impacted Small and Medium Enterprises (SMEs) worldwide, which are a crucial part of many economies, providing employment opportunities and contributing to economic growth (Amaral & Da Rocha, 2023). However, the pandemic has exposed the vulnerability of SMEs due to their limited financial resources and market power to weather economic shocks (Kniffin et al., 2021). From an operations and supply chain management perspective, the economic slowdown caused by the pandemic has resulted in reduced demand for goods and services, which has hit SMEs particularly hard. Many SMEs have had to close their businesses temporarily or permanently due to cash flow issues resulting from supply chain disruptions and decreased consumer spending. Moreover, remote work has presented several challenges for SME operations, including limited access to technology, reduced productivity, and difficulty in managing teams (Surya et al., 2022). Despite these challenges, SMEs have shown resilience and agility in adapting to the changing business landscape. Many have innovated and pivoted their business models and operations to meet the changing consumer needs, which has presented new growth opportunities. The challenges faced by SMEs during the pandemic underscore the need for policies and measures that support their financial resilience and innovation capacity (Bondeli & Havenvid, 2022).

Furthermore, the success of SMEs in navigating the post-pandemic era is closely tied to effective leadership in the organization, operations management and supply chain management. SMEs need to develop more resilient supply chains and invest in technology and digital infrastructure to improve their operational efficiency and competitiveness (Negri et al., 2021). This requires effective leadership that can guide the organization through the challenges of the pandemic, adapt to new ways of working, and make strategic decisions to ensure the long-term sustainability of the business (Shin & Park, 2021). Furthermore, leaders in SMEs need to be innovative and forward-thinking, identifying opportunities for growth and development amid economic uncertainty to ensure sustainable operations of their businesses (Al-Shaikh & Hanaysha, 2023). They need to foster a culture of adaptability and resilience within the organization, encouraging employees to embrace change and take on new challenges (Lengnick-Hall, Beck, & Lengnick-Hall, 2011). Effective leadership in supply chain management also requires collaboration and communication with suppliers, customers, and other stakeholders to build strong and sustainable partnerships (Mokhtar, Anindita, & Suhaimi, 2023; Lockström et al., 2010).

Effective leadership is critical for SMEs to navigate the challenges of the post-pandemic era (Annarelli & Nonino, 2016). In Malaysia, SMEs are essential to both short and long-term economic and social development. However, recent statistics reveal a concerning trend of high failure rates for SMEs in the country. Approximately 3.5% of SMEs fail after two years, and a staggering 54% close down within four years (Malaysia Department of Statistics, 2023). Many of these SMEs struggle to sustain themselves within the first five years and are at risk of closure. This high failure rate is particularly worrying because their failure can have a detrimental effect on national GDP and employment. It is worth noting that, the COVID-19 pandemic has further exacerbated the challenges faced by SMEs in Malaysia, with negative impacts on their GDP growth and employment. In 2020, Malaysia's SME GDP growth rate was negative, at 7.3%, for the first time in 17 years since 2003 (Malaysia Department of Statistics, 2023). Furthermore, the percentage of SMEs employed in Malaysia declined to 48% in 2020, indicating a worrying trend for SMEs in the country. To address these challenges, SMEs in Malaysia need to focus on improving their operations management, particularly through resilience and competitiveness. This requires concerted efforts to develop more robust business strategies, improve operational efficiency, and leverage new technologies and digital infrastructure. As argued earlier, effective leadership is essential to guide SMEs through the challenges of the post-pandemic era and foster a culture of innovation and adaptability within the organization (Bondeli & Havenvid, 2022).

Moreover, effective leadership is essential to navigate through the challenges of the post-pandemic era and ensure the long-term success of SMEs in Malaysia. Although the topic of leadership has garnered significant attention from researchers and scholars, the current literature primarily examines the link between leadership styles and business sustainability before the pandemic. However, with the unprecedented global crisis brought about by the COVID-19 pandemic, there is a pressing need to re-examine this relationship and assess its relevance in the post-pandemic era (Asriati et al., 2022). Despite this urgency, only a limited number of studies have investigated the impact of leadership on business sustainability in the context of the post-pandemic era. Therefore, there is an opportunity for further research to shed light on the effectiveness of various leadership styles in promoting business sustainability in the post-pandemic world. To address the gap in the existing literature, this study aims: *to explore the effect of different leadership styles on the sustainability of small and medium-sized enterprises (SMEs) in the post-pandemic era*. The paper is organized as follows. Section 2 provides a literature review discussing the role of leadership in fostering sustainable business sustainability resilience. This section also provides theoretical arguments and proposes the associated hypotheses. Employed research methods are presented in Section 3. Findings are illustrated in Section 4 and discussed in Section 5. Section 6 concludes the paper with a discussion of potential opportunities for future research.

2. Literature Review and Hypotheses Development

Business Sustainability and Resilience: Business sustainability and resilience refers to a company's ability to recover from disruptions and maintain its operations and profitability over the long term (Bondeli & Havenvid, 2022). It plays a crucial role in ensuring that businesses can continue to operate while keeping employees satisfied and earning profits. This concept has gained increasing attention in recent years and is becoming a significant consideration for businesses of all sizes. Business sustainability is also critical for a company's success and longevity. It encompasses its ability to anticipate, prepare for, and adapt to changes and challenges in its environment. By doing so, it can quickly recover from disruptions and continue to operate effectively (Beuren, dos Santos, & Theiss, 2022). Moreover, in today's fast-paced and unpredictable business environment, companies face a wide range of threats and challenges. These include natural disasters, cyber-attacks, supply chain disruptions, and economic downturns. Therefore, business sustainability and resilience are essential for companies of all sizes and across all industries. By building sustainability and resilience, businesses can better navigate unforeseen challenges and stay competitive in the long term.

Business sustainability can also improve a company's reputation and attract customers and employees who value a socially responsible and sustainable approach to business (Surya et al., 2022). The benefits of business sustainability are vast and multifaceted. Firstly, it enables companies to effectively manage risks and maintain operations, even in the face of unexpected events, which can help minimize disruptions and preserve the company's reputation (Negri et al., 2021). Secondly, it can provide companies with a competitive

advantage by allowing them to respond quickly to changing market conditions and customer demands. Lastly, a resilient business is better equipped to safeguard its employees, assets, and stakeholders (including supply chain partners), promoting long-term sustainability and success. In today's fast-paced business landscape, business resilience is crucial for companies to thrive, and those who prioritize building and maintaining a resilient business are more likely to achieve success in the long run (Chopra et al., 2021).

Leadership: Full-Range Leadership Model and Its Generalities: Leadership has been a subject of extensive research in recent decades, resulting in several theories that aim to define and explain its antecedents, traits, and outcomes (Waters, 2013; Avolio, Bass, & Jung, 1999). The most prominent leadership approach in recent years is the transformational-transactional leadership theory. This approach has been the focus of research since the early 1980s and is considered to be the most popular leadership approach (Mokhtar et al., 2019a; Day et al., 2014; Northouse, 2010). A total of 294 articles (39% of the total articles) on transformational-transactional leadership or neo-charismatic theory were published in ten top-tier journals between 2000 and 2012 (Dinh et al., 2014). To date, transformational-transactional leadership theory remains the most researched area in leadership and is expected to continue to grow. To create a complete leadership model, it is necessary to merge both transformational and transactional leadership styles because they are interconnected (Mokhtar et al., 2019b; Day & Antonakis, 2012; Bass & Bass, 2008). Additionally, including the laissez-faire leadership style in the full-range leadership model provides a comprehensive and holistic understanding of leadership styles. The model consists of three primary factors: transformational leadership (individualized consideration, intellectual stimulation, inspirational motivation, and idealized influence), transactional leadership (contingent reward and management-by-exception active), and laissez-faire leadership or passive avoidant (laissez-faire and management-by-exception passive (Day & Antonakis, 2012; Avolio et al., 2009).

Transformational Leadership: Transformational leadership, originally proposed by Burns in 1978, has been shown in previous studies to have the ability to positively impact individuals and social systems within an organization. Avolio, Bass & Jung (1999) characterized this leadership style by its strategic vision and effective communication, aimed at transforming employees' motivations and values to improve their performance. Recent research by Odeh et al. (2023) has also shown that transformational leaders are capable of directing the morale and ideals of their employees toward the betterment of the group, rather than their interests. Additionally, studies have demonstrated that transformational leaders utilize innovative ideas to drive their teams towards surpassing expectations, instead of just meeting them. These features of transformational leadership have been found to have the potential to positively impact the sustainability of SMEs (Nor-Aishah, Ahmad, & Thurasamy, 2020). In the past, researchers have evaluated the transformational leadership qualities of managers by measuring the extent to which they have influenced their followers (Northouse, 2010).

The transformational leadership style is known to help managers and staff achieves higher levels of efficiency and effectiveness, which is crucial for achieving organizational goals and long-term success. Transformational leadership has been widely recognized by researchers and scholars as an effective leadership style for improving small business performance (Lee et al., 2023). Extant studies in leadership found that leaders who use a transformational leadership style can motivate their employees, increase customer satisfaction, support innovation, improve marketing strategies, and achieve higher levels of organizational performance and business sustainability (Chen et al., 2021; Roman, 2017). These studies indicate that transformational leadership is a reliable leadership style for SMEs all over the world, as it can help to ensure operational and supply chain stability, and sustainable growth. As a result, it has been suggested that an increase in the number of transformational leaders in an organization may lead to greater business sustainability and resilience. Hence, this study hypothesises that:

Hypothesis 1: *Transformational Leadership style has a positive effect on the SME's business sustainability.*

Transactional Leadership: Transactional leadership is a key aspect of the full-range leadership theory, initially formulated by Burns in 1978 with a focus on political leaders but later expanded by Avolio and Bass in 1991 to include organizational leaders. These leaders motivate employees through a system of rewards and punishments to encourage compliance with established rules and procedures. Rewards such as praise, bonuses, and promotions are used to incentivize desired behaviors, while punishment in the form of

demotions or termination is employed to discipline those who fail to meet expectations (Mokhtar et al., 2019b). Transactional leaders prioritize achieving company goals and maintaining organizational stability, often neglecting long-term vision and employee development. This style is particularly effective in highly structured, bureaucratic organizations where employees are not expected to take initiative (Birasnav, 2014). In contrast to transformational leaders who prioritize group interests and build strong follower relationships based on trust and respect, transactional leaders prioritize both organizational and individual objectives (Lee et al., 2023). While transformational leadership is better suited for uncertain and unpredictable environments, transactional leadership thrives in stable and well-defined task situations.

Both styles contribute to the sustainability and growth of businesses, leading to the recognition of transactional leadership as a valuable addition to the full-range leadership theory. While some studies show a positive impact, others indicate that transactional leadership may not be as effective as transformational leadership, particularly in fostering organizational innovation (Klein, 2023). As such, the effectiveness of transactional leadership in terms of business sustainability remains a topic of ongoing debate among researchers. Transactional leadership is a significant leadership style within the full-range leadership theory. It is particularly effective in stable and well-structured organizational environments, where it prioritizes achieving company goals and maintaining order (Abdelwahed, Soomro, & Shah, 2023). Transactional leadership, when applied appropriately, can be a valuable tool for achieving short-term goals and maintaining stability within organizations, but its limitations must be acknowledged in contexts where employee trust and long-term vision are critical factors. Hence, this study hypothesises that:

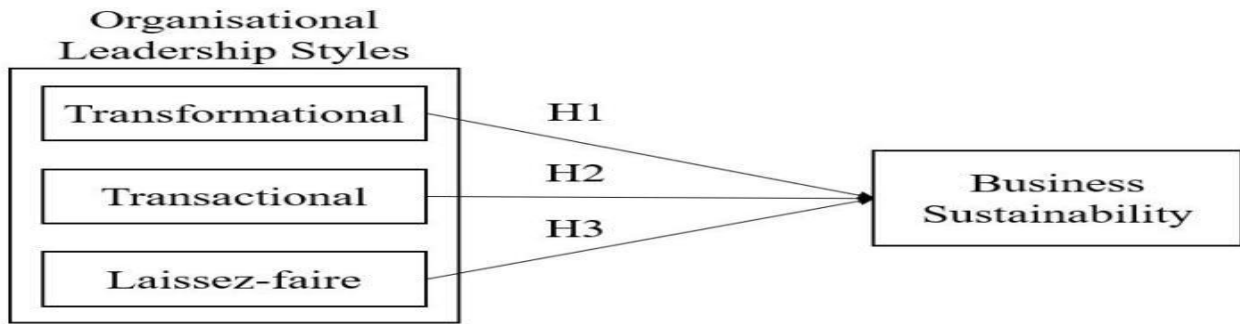
Hypothesis 2: *Transactional Leadership style has a positive effect on the SME's business sustainability.*

Laissez-Faire Leadership: Laissez-faire leadership is the third type of leadership according to the full-range leadership theory, characterized by a hands-off approach where leaders provide little guidance or input, allowing team members to make decisions and take action on their own (Judge & Piccolo, 2004). Research has shown that this leadership style can be ineffective and even detrimental to the sustainability of SMEs. Managers who adhere to laissez-faire leadership may neglect decision-making, fail to address organizational problems and delegate power without proper guidance or feedback, leading to a lack of direction and decision-making within the organization (Harms & Credé, 2010). This can negatively impact employee motivation, performance, and well-being, resulting in low morale, high turnover rates, and poor business performance (Odeh et al., 2023). However, in certain situations, laissez-faire leadership may be effective when employees have a clear understanding of their responsibilities and possess excellent analytical skills (Bass, 1998).

Managers must consider the nature of their business, their employees, and the specific circumstances before deciding on the appropriate leadership style. Despite some limited studies suggesting the positive impact of laissez-faire leadership on company success, the majority of research highlights its negative influence on business performance and sustainability (Yammarino et al., 1993). Companies with leaders who adopt a laissez-faire approach risk increased confusion over roles, conflicts, and employee dissatisfaction due to inadequate leadership behaviors. As a result, it is essential for SMEs to carefully assess the implications of adopting a laissez-faire leadership style and consider alternative approaches that foster employee engagement, commitment, and long-term organizational sustainability (Abdelwahed, Soomro, & Shah, 2023). Hence, this study hypothesises that:

Hypothesis 3: *Laissez-faire Leadership style has a positive effect on the SME's business sustainability.* The conceptual framework of this study is depicted in Figure 1.

Figure 1: Conceptual Framework



3. Methodology

The study aims to investigate the relationship between leadership styles and SMEs' business sustainability using a quantitative research method. The data collection was done through an online questionnaire sent to respondents via email. The target respondents were owners and managers of SMEs in Malaysia, as they are key decision-makers and best able to provide relevant information. A pilot test was conducted with 30 respondents to address any limitations of the survey instrument. The questionnaire consisted of three sections, covering demographics, leadership styles, and SMEs' business sustainability. The questionnaire was provided in both English and Malay to accommodate respondents with different language preferences. The researchers employed a purposive sampling method to select respondents from the services and manufacturing sectors in Malaysia. The sample was drawn from a list of SMEs obtained from the Smart Selangor website (<https://sme.smartselangor.com.my/>). A structured questionnaire was used to collect demographic data, measure transformational, transactional, and laissez-faire leadership styles, and assess SMEs' business sustainability. The Multifactor Leadership Questionnaire (MLQ) was adopted from previous studies to measure leadership styles. The MLQ was used to measure transformational, transactional, and laissez-faire leadership styles, while the measurement of SMEs' business sustainability was adapted from Nor-Aishah et al. (2020). The data was analyzed using SPSS, and multiple regression analysis was employed to test the hypotheses.

4. Results

Demographic Profile: Out of the 214 respondents, 136 (64%) were females, and 78 (36%) were males. The respondents' ages ranged from less than 20 to 45 years. Among the respondents, 89 (41%) were diploma and certificate holders, followed by 86 (40%) secondary school leavers, and the remaining 41 (19%) had no formal qualifications. The majority of respondents (188, 88%) had a work experience of one to five years, and a significant portion (188, 88%) earned less than the RM1,500 minimum wage. In terms of industry, 69.6% (N=149) of the 214 respondents were in the services industry, while 30.4% (N=65) were in the manufacturing industry. Regarding their positions, 70.6% (N=151) of the respondents were business owners, and 29.4% (N=63) were managers, supervisors, or team leaders. 39.3% (N=84) of the respondents had less than 3 years of business tenure, followed by 37.4% (N=80) with 4 to 6 years of tenure, and 15% (N=32) with 7 to 10 years of tenure. Only 5.1% (N=11) had more than 15 years of tenure, and the least, 3.3% (N=7), fell within the range of 11 to 14 years of tenure. The mean business tenure was 1.98 with a standard deviation of 1.0. Moreover, 74.8% (N=160) of the respondents considered their business to be a micro-enterprise with less than five employees. Additionally, 22.4% (N=48) had between 6 and 75 employees, considered as a small enterprise, while 2.8% (N=6) had between 76 and 200 employees, classified as a medium enterprise.

Preliminary Data Analysis: Before conducting the final data analysis, data screening procedures were performed. These procedures included checking for missing data, detecting outliers, testing for normality, and assessing multicollinearity. To handle missing data, mean substitution was utilized to retain as many responses as possible. Outliers were detected through boxplot examination and by comparing the mean value of each item with its 5% trimmed mean (Pallant, 2016). Fortunately, the dataset did not contain extreme outliers, and no responses needed to be removed, transformed, or modified. Additionally, the dataset showed no extreme skewness and kurtosis, with both values falling within the recommended range of -1 to +1 as

suggested by Hair et al. (2014). Moreover, the multicollinearity test demonstrated that there was no multicollinearity among the independent variables, as indicated by tolerance values greater than 0.10 and variance inflation factors (VIF) less than 10. Furthermore, the Cronbach Alpha values ranged from 0.7 to 0.9 for all variables, suggesting that the questionnaire instruments used were valid and reliable.

Multiple Regression Analysis: The regression analysis was used to test the relationship between leadership styles and SMEs business sustainability. The R square recorded a value of 0.226, indicating that the independent variables, namely transformational, transactional, and laissez-faire leadership could explain 22.6% of the variation in business sustainability. The results of the multiple regression revealed that two factors had significant positive contributions toward business sustainability, namely transformational leadership ($\beta = 0.162$, $t = 4.242$, $p = 0.000$) and transactional leadership ($\beta = 0.210$, $t = -2.465$, $p = 0.015$). As a result, H1 and H2 were supported by this analysis. As hypothesized, laissez-faire leadership has a significant negative impact on business sustainability ($\beta = -0.205$, $t = -2.079$, $p = 0.039$). Thus, H3 was also supported. The details of the regression analysis are illustrated in Table 1.

Table 1: Regression Analysis

| Dependent Variable: Business Sustainability and Resilience | | | | |
|---|--|----------|-------------|-------------------|
| Independent Variables | Standardized Coefficient (BETA) | t | Sig. | Hypothesis |
| Transformational Leadership | .162 | 4.242 | .000 | Accepted |
| Transactional Leadership | .210 | 2.465 | .015 | Accepted |
| Laissez-faire Leadership | -.205 | -2.079 | .039 | Accepted |
| F value | 20.456 | | | |
| Sig. | .000 ^b | | | |
| R square | .226 | | | |

Discussion: The results indicate a moderate positive relationship between transformational leadership and business sustainability. This means that higher levels of transformational leadership are associated with higher levels of business sustainability. This finding aligns with previous studies that also found a positive relationship between transformational leadership and business sustainability. For example, Nor-Aishah et al. (2020) found that transformational leadership had a positive effect on the sustainable performance of manufacturing SMEs in Malaysia. Similarly, Nasir, Zakaria, & Zien Yusoff (2022) reported that transformational leadership had a positive impact on the sustainability of SMEs in Pakistan. These studies support the findings of this study and suggest that transformational leadership is an important factor in SMEs' sustainability. The positive effect of transformational leadership on business sustainability can be explained by the fact that transformational leaders inspire and motivate their followers, create a vision, and empower them to achieve that vision. This leads to increased innovation, creativity, and ultimately better organizational performance. Furthermore, transformational leaders focus on the development of their followers, leading to increased job satisfaction and commitment, resulting in better organizational outcomes.

Similarly, the results indicate a moderate positive relationship between transactional leadership and business sustainability. This means that higher levels of transactional leadership are associated with higher levels of business sustainability. This finding is consistent with previous research that discovered a correlation between transactional leadership and business sustainability. For instance, Zhu & Huang (2023) found that transactional leadership had a positive effect on organizational innovation among Chinese firms. Similarly, a recent study by Abdelwahed, Soomro, & Shah (2023) found that transactional leadership had a positive impact on SMEs' performance. These studies support the findings of this paper and imply that transactional leadership is an important factor in SMEs' sustainability. It is worth noting that transactional leadership is important for SMEs' sustainability as it focuses on maintaining stability and continuity in the organization while fulfilling the basic expectations and requirements of employees. This leads to increased trust, commitment, and job satisfaction, resulting in better organizational outcomes. Additionally, transactional leaders provide clear expectations, guidelines, and rewards for meeting goals, ensuring that employees are working towards a common goal and are held accountable for their actions.

This leads to increased motivation and productivity, ultimately contributing to the sustainability of the

organization. Lastly, the results indicate a moderate negative relationship between laissez-faire leadership and business sustainability. This means that higher levels of laissez-faire leadership are associated with lower levels of business sustainability. Laissez-faire leaders tend to adopt a hands-off approach to management, delegating decision-making to their subordinates, which can lead to a lack of direction and guidance, resulting in poor performance and lower levels of business sustainability (Kelloway et al., 2012; Harms & Credé, 2010; Judge & Piccolo, 2004). Additionally, their less involvement in day-to-day operations can lead to a lack of oversight and accountability, resulting in poor decision-making, inefficiency, and lower levels of business sustainability. In conclusion, the results of this study suggest that transformational and transactional leadership styles are positively related to business sustainability in SMEs, while laissez-faire leadership has an adverse relationship with business sustainability. Therefore, owners and managers of SMEs in Malaysia should adopt transformational or transactional leadership styles and avoid laissez-faire leadership to improve their business sustainability.

5. Conclusion

In light of the ongoing global pandemic and its profound impact on businesses worldwide, including SMEs in Malaysia, the findings of this study hold even greater significance. The COVID-19 pandemic has disrupted economies, supply chains, and consumer behavior, posing unprecedented challenges for SMEs. In this post-pandemic era, the role of leadership styles in navigating the uncertain and rapidly changing business landscape becomes even more critical. Nevertheless, the pandemic has underscored the importance of effective leadership in guiding organizations through crisis and uncertainty. This study aims to examine the relevance of the Full-Range Leadership Model in understanding the relationship between leadership styles and business sustainability, in the context of the post-pandemic era. Through a quantitative research method, data was collected using a structured questionnaire from SME owners and managers in the services and manufacturing sectors. The findings provide valuable insights into the impact of different leadership styles on the sustainability of SMEs in the region. The findings of this study align with previous research, supporting the notion that leadership styles play a critical role in SME sustainability.

For instance, studies in different countries, including Malaysia and the UK, have shown the positive influence of transformational and transactional leadership on SME sustainability. These consistent findings suggest that effective leadership practices are essential for SMEs worldwide, regardless of the cultural and business context. The implications of this research are significant for SME owners and managers, as well as policymakers and practitioners in the field of entrepreneurship and business management. Understanding the relationship between leadership styles and business sustainability can help SMEs in Selangor and beyond make informed decisions to improve their performance and ensure long-term success. By recognizing the importance of transformational and transactional leadership, SME leaders can actively develop their leadership skills and enhance the engagement and commitment of their employees. Moreover, this study contributes to the existing body of knowledge on leadership and SME sustainability, particularly in the context of developing countries. By conducting a comprehensive analysis and employing rigorous statistical methods, this research provides valuable insights into the specific factors that influence the sustainability of SMEs.

These insights can be used by policymakers to develop targeted interventions and support mechanisms for SMEs in the region. However, this study is not without limitations. The research employed a purposive sampling method, which may limit the generalisability of the findings to the broader population of SMEs in Malaysia. Future research could adopt a more diverse sampling approach to enhance the representativeness of the results. Additionally, this study focused on leadership styles in the services and manufacturing sectors, leaving room for further investigations into other industries. In conclusion, this research sheds light on the crucial role of leadership styles in driving the sustainability of SMEs. By embracing effective leadership practices, SMEs can position themselves for long-term growth and success. Policymakers and practitioners can also use these findings to develop targeted strategies to support and empower SMEs in their pursuit of sustainable business practices. As the SME landscape continues to evolve, understanding the dynamics between leadership and sustainability becomes increasingly vital for the growth and development of these crucial contributors to the economy.

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