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# MANAGEMENT STRATEGIES FOR SUSTAINABLE BUSINESS GROWTH: A MIXED-METHODS STUDY OF SMEs IN THE ASIA-PACIFIC

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## ABSTRACT

*This study explores the management strategies for sustainable business growth among SMEs in the Asia-Pacific, employing a mixed-methods approach that integrates quantitative survey analysis (n=350) and qualitative case studies (n=6). Findings reveal that financial sustainability ( $\beta = 0.064$ ,  $p = 0.039$ ) is the strongest predictor of SME success, highlighting the importance of structured financial planning, reinvestment strategies, and access to alternative financing options such as fintech, crowdfunding, and government grants. Contrary to common assumptions, digital transformation ( $p = 0.338$ ) alone does not guarantee business growth unless strategically integrated with financial and operational planning. The study also underscores the trade-off between short-term financial burdens and long-term sustainability benefits, with SMEs facing initial cost challenges in adopting green business models ( $\beta = -0.091$ ,  $p = 0.008$ ) but achieving enhanced brand reputation and market competitiveness over time. Furthermore, integrated strategies combining finance, marketing, leadership, and sustainability emerge as essential for SME resilience. Practical implications suggest the need for financial support mechanisms, regulatory simplifications, and expanded digital training programs to facilitate SME sustainability. By adopting a balanced approach to financial stability, digital adoption, and sustainability initiatives, SMEs can achieve scalable and competitive growth. This study contributes to the SME sustainability literature by offering empirical insights and strategic recommendations to enhance SME resilience in dynamic economic landscapes.*

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**KEYWORDS:** Management, Sustainable Business Growth, Small and Medium Enterprises, Asia-Pacific.

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## 1. INTRODUCTION

### 1.1 Background and Context

Small and Medium Enterprises (SMEs) function as the essential foundation of the Asia-Pacific economy while providing substantial support to employment creation and innovation alongside economic development. The enterprises function in a fast-changing environment which includes technological progress and digital change together with stronger sustainability requirements (Olazo, 2023; Williams et al., 2024). The economic development depends heavily on SMEs but these businesses struggle with resource limitations market instability regulatory requirements and digital transformation adoption (Yao et al., 2024). Sustainable business practices now represent a necessity for SMEs to maintain their competitive position and business sustainability. Sustainability within business operations goes beyond protecting our environment and now involves social responsibility better governance and digital advancement (Hassan et al., 2023). Small and medium-sized enterprises operating in Asia-Pacific markets face multiple growth barriers alongside market-specific opportunities across their mission to develop sustainability practices. SMEs must implement strategic management approaches that ensure long-term viability because of increasing globalization along with expanding e-commerce penetration and the emphasis on Sustainable Development Goals (SDGs) according to Raman et al. (2024).

Asia-Pacific businesses are adopting digital transformation together with agile strategies and innovative marketing competencies to deal with economic uncertainties while digitalization serves as a fundamental growth enabler for SMEs (Yap, 2023). The total influence that these approaches bring to sustainable business achievement remains an active area for scientific inquiry. Research studies identify dynamic managerial capabilities together with mixed-method research approaches as essential tools for studying SME resilience and their adaptation methods (Zhang, Yuan, & Su, 2024). This research investigates the management approaches that promote sustainable business expansion for Asia-Pacific region SMEs to bridge existing knowledge gaps.

### 1.2 Importance of Sustainable Business Growth for SMEs in the Asia-Pacific

Small and Medium Enterprises (SMEs) function as the essential foundation of the Asia-Pacific economy while providing substantial support to employment creation and innovation alongside economic development. Asia-Pacific SMEs work in an actively changing business world shaped by technology

changes digital shifts and expanding sustainability mandates as reported by Olazo (2023) and Williams et al. (2024). The economic development depends heavily on SMEs but these businesses struggle with resource limitations market instability regulatory requirements and digital transformation adoption (Yao et al., 2024). Sustainable business practices now represent a necessity for SMEs to maintain their competitive position and business sustainability. The realm of sustainability now encompasses various elements beyond environmental stewardship because it includes aspects of social practices and governance management alongside digital progress (Hassan et al., 2023). Sustainable growth for SMEs faces both opportunities and obstacles in the Asia-Pacific region because of its multiple economic frameworks across different business markets. SMEs must implement strategic management approaches that ensure long-term viability because of increasing globalization along with expanding e-commerce penetration and the emphasis on Sustainable Development Goals (SDGs) according to Raman et al. (2024).

Asia-Pacific businesses are adopting digital transformation together with agile strategies and innovative marketing competencies to deal with economic uncertainties while digitalization serves as a fundamental growth enabler for SMEs (Yap, 2023). Researchers continue studying to what extent these business strategies lead to sustainable growth of organizations. The literature reveals how dynamic managerial competencies together with mixed research approaches help explain how SMEs develop resilience and adaptation approaches (Zhang, Yuan, & Su, 2024). This research investigates the management approaches that promote sustainable business expansion for Asia-Pacific region SMEs to bridge existing knowledge gaps.

### 1.3 Research Gap

The literature about SME sustainability continues to grow but researchers still need to address gaps regarding which management approaches drive sustainable business expansion in the Asia-Pacific (Paul, 2024). Few research investigations combine digital transformation with managerial capabilities and sustainability practices under one unified conceptual framework according to Dey et al. (2022). Previous research studies use either quantitative or qualitative methods exclusively while neglecting to combine approaches that would deliver a complete understanding of SME sustainability (Sherman, Halila, & Chappell, 2024).

Most research focuses on sustainability within large corporations while neglecting how SMEs handle their

sustainability challenges using scarce resources (Astuty, Sudirman, & Aryanto, 2024). The current body of literature fails to provide adequate insights into how small and medium enterprises handle their financial performance regarding environmental and social sustainability goals. Digital transformation stands as a vital growth enabler for SMEs but researchers need to study its direct impact on sustainability development (Rowley & Paul, 2022).

The research fills existing knowledge gaps through its mixed-methods design to explore sustainable business growth strategies used by SMEs. This research utilizes both quantitative survey results and qualitative case studies to deliver an extensive comprehension of sustainable strategic practices used by SMEs in the Asia-Pacific region.

### **1.4 Research Objectives**

This study aims to examine the management strategies that contribute to sustainable business growth among SMEs in the Asia-Pacific region. The specific objectives are as follows:

1. To identify key management strategies that enable sustainable business growth in SMEs.
2. To analyze the role of digital transformation and innovation in fostering SME sustainability.
3. To examine the challenges faced by SMEs in implementing sustainable business strategies.

By achieving these objectives, this study seeks to contribute to both academic literature and practical business strategies that enhance SME resilience and competitiveness.

### **1.6 Significance of the Study**

The research findings have multiple academic value and practical use alongside policy implications. The research enhances academic knowledge about SME sustainability through its mixed-methods design which combines quantitative and qualitative data to create a comprehensive analysis of management approaches (Wang, Zeng, Lai, & Lin, 2024). The present study broadens upon prior research by examining sustainable SME growth through a combination of social, environmental, and digital aspects and financial sustainability (Tran, Lau, & Ong, 2024). The study's practical outcomes offer specific business sustainability enhancement methods to small and medium enterprises and their managers and owners and government decision-makers. The research identifies Asia-Pacific-specific best practices and challenges to show SMEs how they can use innovation and marketing strategies with digital transformation for enduring success (Abdul Ghani Azmi, Che Hashim, Mohamed, & Sahol

Hamid, 2023). Policymakers along with industry leaders can leverage research findings to create specific support systems for SMEs which will maintain alignment between regulatory frameworks and financial incentives with small business requirements (Oka & Subadra, 2024). The current research adds value to worldwide discussions about small business resilience and competitiveness in a changing global economy because sustainability and digitalization gain importance (Ray et al., 2024).

The research focuses on sustainable SME growth fundamentals to connect theoretical gaps and support policy creation and practical business leader guidance for Asia-Pacific sustainability challenges.

## **2. RESEARCH METHODOLOGY**

### **2.1 Research Design**

The research design incorporated both quantitative survey results and qualitative case studies and interviews to analyze the management approaches behind sustainable business expansion for SMEs in the Asia-Pacific business sector. The research design provided complete knowledge about SMEs' sustainability-driven management approaches by exploring their reasons and methods for decision-making. The study merged quantitative methods for discovering broad sustainability patterns among SMEs by avoiding specification weaknesses but used qualitative data collection to overcome generalization weaknesses. The research merged these methods to make sure quantitative methods identified robust statistical relations between management approaches and sustainability assessment standards. Qualitative findings delivered practical knowledge about SME leaders' actual situations to analyze their difficulties and motivational factors along with their ability to adjust. By integrating different research methods the study improved its reliability and strengthened its conclusions through multiple method cross-validations of findings. The Asia-Pacific region required the mixed-methods approach to understand the diverse sustainability strategies employed by SMEs.

### **2.2 Quantitative Method**

#### **2.2.1 Sample Selection and Data Collection**

The research utilized stratified random sampling to achieve proper representation among different industries business sizes and geographic locations throughout the Asia-Pacific region. A target group of SME owners together with their senior managers and decision-makers was selected from the manufacturing, retail, digital commerce, services, and

tourism sectors. The researchers determined the sample size through Cochran's formula. The sampling method produced a valid statistical sample that guaranteed the findings could be generalized beyond the specific sample. Statistical significance in the findings required a minimum of 350 SMEs to participate in the survey. The research instrument was sent to multiple online platforms. The research team distributed the survey through LinkedIn business forums SME networks and industry association direct emails to chambers of commerce. Additional emails were automatically sent to respondents at two-week intervals for better response rate improvement. The survey team addressed potential low response rates by offering participants a summary report of findings which provided them with value from their survey contribution.

### 2.2.2 Survey Instrument and Variables

The survey instrument was designed using validated measurement scales from existing SME sustainability literature. It included both Likert-scale questions (1-5) and open-ended responses to capture additional qualitative insights.

The key variables and measurement scales included:

1. Strategic Management Practices, assessing business agility, decision-making, and sustainability-focused leadership strategies.
2. Financial Sustainability, measuring revenue stability, profitability, and reinvestment capabilities.
3. Digital Transformation & Innovation, analyzing technology adoption, e-commerce utilization, and automation.
4. Marketing Competency & Brand Equity, evaluating digital marketing strategies, consumer trust, and competitive differentiation.
5. Environmental & Social Sustainability Practices, focusing on CSR initiatives, waste management, and green business models.

To ensure clarity, reliability, and validity, a pilot study was conducted with 20 SMEs before large-scale distribution. Reliability was tested using Cronbach's Alpha (>0.7), ensuring internal consistency of survey constructs, and construct validity was established through adaptation from validated literature.

## 2.3 Qualitative Method

### 2.3.1 Selection Criteria for SMEs

To complement the survey findings, six case studies were conducted with SMEs demonstrating varied experiences in sustainable business growth. To reduce survivorship bias, SMEs were selected from:

1. Successful SMEs with a proven record of sustainability integration.
2. Moderately performing SMEs struggling with sustainability implementation.
3. SMEs that failed or pivoted due to sustainability challenges.

This selection strategy ensured a balanced representation of sustainability experiences across different levels of success and challenges.

### 2.3.2 Data Collection and Interview Protocols

Semi-structured interviews were conducted with CEOs, founders, and sustainability managers. Each interview lasted 40–60 minutes and was conducted via Zoom, Microsoft Teams, or in person. The key interview themes included:

- Key sustainability drivers and strategic decision-making.
- Digital transformation experiences and their impact on growth.
- Market adaptation and response to regulatory challenges.

To analyze qualitative data, NVivo software was used for thematic coding and pattern identification. To enhance data credibility, interviewees were asked to review transcripts for accuracy, reducing the risk of misinterpretation.

## 2.4 Data Analysis Techniques

For quantitative analysis, various statistical methods were applied:

- Descriptive Statistics, including mean, standard deviation, and frequency distributions, provided a clear overview of the data.
- Inferential Statistics, including Co-relation analysis and regression Analysis, to examine relationships between management strategies and business sustainability, and Structural Equation Modeling (SEM), to test causal pathways between sustainability initiatives and SME performance.

For qualitative data, multiple analytical techniques were employed:

- Thematic Analysis, to identify key themes such as leadership adaptability, innovation-driven sustainability, and financial resilience.
- Content Analysis, to extract key sustainability practices from SME narratives.
- Comparative Industry Analysis, to evaluate differences in sustainability strategies across sectors and enhance practical recommendations.
- Triangulation, to validate qualitative insights with survey findings, ensuring credibility and

methodological rigor.

The study implemented an extensive mixed-methods approach to deliver solid findings about sustainability approaches used by SMEs. By uniting quantitative survey methods with qualitative case study research the study increased both the validity and practical value and soundness of collected data to support academic research as well as business practice requirements.

### 3. RESULT

#### **3.1 Key Management Strategies for Sustainable Growth**

##### **3.1.1. Strategic Management and Leadership Adaptability**

The implementation of agile leadership systems within SME organizations proved effective for maintaining business resilience when economies experienced alterations. Leadership traits involving flexibility and proactive approaches combined with quick market adaptability created conditions that allowed business growth sustainability. High-performing small and medium enterprises used real-time analytical models with forecasting techniques implementations to conduct scenario planning for determining their business strategies successfully. The ability to foresee future challenges permitted SMEs to distribute resources optimally while securing business stability when facing market volatility.

##### **3.1.2. Financial Planning and Investment in Sustainability**

The adoption of planned financial reinvestment strategies together with risk protection strategies by small and medium enterprises resulted in better long-term operational stability. Companies that managed their cash properly while expanding their income sources through various methods also invested in prediction tools for better success during tough economic times. The sustainability of SMEs depended heavily on their ability to access different financing solutions including fintech options and crowdfunding platforms in addition to government grants. Financial institutions offer alternative funding avenues that enable companies to expand their operations implement sustainability measures and solve their funding challenges apart from conventional banking services.

##### **3.1.3. Digital Transformation and Technology Integration**

The synergy of artificial intelligence automation with cloud computing systems and e-commerce

infrastructures dramatically improved operational effectiveness for small to medium enterprises. Companies that implemented systems for automated workflows and predictive analytics joined digital collaboration tools saw their operational processes reach effectiveness and their operational expenses decrease while their decision-making capabilities enhanced. Digital marketing adoption resulted in dramatic improvements in customer engagement together with retention rates for businesses. Small businesses achieve better brand relations and market advantages in competitive fields through their use of specific social media marketing and personalized promotion methods in conjunction with AI-controlled CRM systems.

##### **3.1.4. Marketing Competency and Consumer Engagement**

The businesses that personalized their marketing approaches achieved superior customer retention and loyalty levels amongst consumers. Businesses attain effective customer need satisfaction due to their application of data analytics along with consumer segmentation and behavioral insights in their marketing campaign development. Digital branding strategies implemented by SMEs led to market competitiveness that extended from their domestic territory to international markets. Companies building consistent brand messaging together with an omnichannel presence and reputation management strategies achieved better long-term customer trust and brand recognition thus enhancing their digital market position.

##### **3.1.5. Environmental and Social Sustainability Initiatives**

SMEs which adopted circular economy practices managed to reduce their long-term costs even though they faced obstacles during their sustainability program implementation phase. The adoption of environmentally friendly supply chain waste management strategies along with energy-efficient manufacturing solutions allowed businesses to minimize operational expenses during successive periods. Brand reputation along with customer trust increased substantially when SMEs took part actively in community programs and CSR initiatives. Small businesses that built their business models to connect with social impact work along with ethical sourcing and environmental responsibility both improved their public image and gained dedicated clients who cared about sustainability. This generated a sustainable marketplace.

### 3.2 Descriptive Statistics

The descriptive analysis provides an overview of

SME adoption of various management strategies in table 1.

**TABLE 1: Descriptive Statistics of Key Management Strategies**

Variable	Mean	Std. Dev
Strategic Management Practices	3.04	1.15
Financial Sustainability	3.01	1.12
Digital Transformation	3.05	1.08
Marketing Competency	3.02	1.10
Environmental & Social Sustainability	2.98	1.14
Overall Business Performance	3.07	1.09

(Values on a 1-5 Likert scale; Mean and Standard Deviation reported)

Digital Transformation (M = 3.05) and Strategic Management Practices (M = 3.04) had the highest scores, indicating increasing adoption. Environmental & Social Sustainability (M = 2.98) scored the lowest, highlighting that sustainability initiatives face adoption challenges.

### 3.3 Correlation and Regression Analysis

A correlation analysis was conducted to examine which factors predict SME business performance in Table 2.

**TABLE 2: Correlation Matrix of Management Strategies and Business Performance**

Variable	Strategic Mgmt	Financial Sust.	Digital Trans.	Marketing Comp.	Env. & Soc. Sust.	Bus. Performance
Strategic Mgmt.	1.00	-0.004	-0.038	0.048	-0.046	-0.036
Financial Sust.	-0.004	1.00	-0.038	-0.001	-0.005	0.035
Digital Trans.	-0.038	-0.038	1.00	-0.007	0.043	-0.038
Marketing Comp.	0.048	-0.001	-0.007	1.00	-0.049	-0.016
Env. & Soc. Sust.	-0.046	-0.005	0.043	-0.049	1.00	-0.093
Bus. Performance	-0.036	0.035	-0.038	-0.016	-0.093	1.00

(Values on a 1-5 Likert scale; Mean and Standard Deviation reported)

Financial Sustainability (0.035) had the highest positive correlation with overall business performance. Environmental & Social Sustainability (-0.093) had a weak negative correlation, possibly due to the short-term financial costs of sustainability

investments.

A multiple regression analysis was conducted to examine which factors predict SME business performance in table 3.

**TABLE 3: Regression Model Summary**

Predictor	Coefficient (β)	Std. Error	t-value	p-value
Constant	2.48	0.21	11.81	<0.001
Strategic Management Practices	-0.017	0.032	-0.53	0.597
Financial Sustainability	0.064	0.031	2.07	0.039*
Digital Transformation	-0.029	0.030	-0.96	0.338
Marketing Competency	-0.014	0.031	-0.46	0.646
Environmental & Social Sustainability	-0.091	0.034	-2.68	0.008**

(Dependent Variable: Business Performance)

Financial Sustainability (β = 0.064, p = 0.039) was a significant positive predictor of business performance. Environmental & Social Sustainability (β = -0.091, p = 0.008) had a negative association, suggesting that initial sustainability investments can reduce short-term profits before generating long-term benefits.

### 3.4. Insights from SME Case Studies and Interviews

#### 3.4.1 Best Practices and Innovative Approaches

*AI Integration in E-Commerce SME (Thailand):* Implemented AI-driven recommendation engines, increasing sales conversion by 30%. *Sustainability Leadership in Manufacturing (Malaysia):* Shifted to green raw materials, reducing waste by 40% and increasing brand trust.

*Failed SME Case Study (Indonesia):* A retail SME invested heavily in digital transformation but lacked financial planning, leading to bankruptcy within two years. Lesson Learned: Digital investments must be paired with strong financial planning for sustainable growth.

### 3.5. Common Challenges and Risk Mitigation

*Financial Barriers to Digital Transformation:* SMEs struggled with the high upfront costs of digitalization, requiring subsidized loan programs. *Regulatory Challenges in Sustainability Adoption:* Complex compliance procedures slowed down SME participation in green initiatives. *Survivorship Bias in High-Performing SMEs:* While many SMEs successfully adopted sustainability, failed cases show that misaligned financial priorities lead to failure.

### 3.6. Analysis Across Different Industries and

### Markets

Table 4 presents a comparative analysis of SME performance across industries, highlighting key differences in digital transformation, sustainability initiatives, and financial stability. E-commerce & retail SMEs excel in digital adoption but lag in sustainability. Manufacturing SMEs lead in sustainability and financial stability, while tech startups prioritize digitalization but face financial challenges. Traditional SMEs show low innovation but moderate financial stability due to conventional business models.

**TABLE 4: Comparative Analysis Across Different Industries and Markets**

Industry	Digital Transformation	Sustainability Initiatives	Financial Stability
E-Commerce & Retail	High	Low	Moderate
Manufacturing	Moderate	High	High
Tech Startups	High	Moderate	Low
Traditional SMEs	Low	Low	Moderate

Retail & E-Commerce benefited most from digital marketing strategies. Manufacturing SMEs led in sustainability adoption but faced cost challenges.

## 4. DISCUSSION

This research delivers essential knowledge about how SMEs in the Asia-Pacific region should manage their business growth to be sustainable. The results connect quantitative survey data with qualitative case studies to demonstrate how strategic leadership together with financial planning digital evolution marketing capabilities and sustainability initiatives results in business success. The analysis examines research results about current articles and reveals theoretical and practical effects alongside policy suggestions and identification of research constraints.

The research shows that agile leadership approaches together with data-based decision processes serve as essential factors for sustaining SMEs. Strategic agility allows SMEs to make proactive market adjustments according to Soltaninezhad *et al.* (2021). Business performance directly results from SMEs' capability to foresee industry changes adapt their business operations and build resilient management systems. Strategic leadership showed no significant relationship ( $p = 0.597$ ) with total business performance according to the regression analysis. The results indicate that leadership needs additional tangible business strategies such as financial stability and technological adoption to achieve optimal performance. Curado, Jesus, and Bontis (2022) explain that leadership functions independently only when it combines with operational guidelines and financial control

measures. The case study of an Indonesian SME illustrates how business failure happens when organizations have weak financial planning combined with excessive digitalization efforts without proper leadership structures. The findings support Islam *et al.*'s (2024) view that SME growth requires a complete approach that combines leadership with financial stability and digital implementation. Financial sustainability proved to be the strongest factor impacting SME growth based on statistical analysis ( $\beta = 0.064$ ,  $p = 0.039$ ). Paul (2024) demonstrated that stable revenues together with financial risk management capabilities and reinvestment potential serve as fundamental factors for the sustainable long-term success of SMEs. SMEs need financial planning specifically for sustainability investments according to Factor and Ulhøi (2021). Our study revealed that sustainability initiatives produced a negative relationship with short-term business achievement with  $\beta$  equal to  $-0.091$  ( $p = 0.008$ ). The study by Dey *et al.* (2022) supports the idea that sustainability practice implementation costs heavily burden businesses particularly those with restricted capital resources. Although sustainability investments lead to extended competitive positions they might present difficult initial financial challenges. In his work Olazo (2023) states sustainable marketing together with CSR-driven business models builds trust in brands while boosting customer loyalty. A Malaysian SME business using green materials together with circular economy principles achieved better brand trust and lasting financial benefits across their operations thus demonstrating sustainability brings value yet demands adequate financial strength. Sustainable

SME development requires both alternative funding practices from fintech lenders and crowdfunding systems. According to Abdul Ghani Azmi et al. (2023), non-traditional financing helps SMEs solve their capital constraints. Sustainability loans with government subsidies along with tax relief programs should become available to help SMEs adopt green practices without financial challenges.

The analysis showed that digital transformation failed to establish a relationship with SME business performance ( $p = 0.338$ ). The findings by Williams et al. (2024) disagree with this research because they demonstrate digital maturity as a crucial factor for SME growth. Digital technology adoption alone does not result in business success since digitalization effectiveness depends on industry conditions combined with financial stability coupled with proper strategic approaches. The failure story of an Indonesian SME supports this observation. AI-driven automation received significant investment from the business before it went bankrupt because of financial instability combined with poor strategic planning. Hassan et al. (2023) indicate that digital transformation needs matched investments in human capital development as well as employee training and strategic management oversight. The adoption of digital technologies delivered superior benefits to e-commerce and tech-based SMEs but traditional businesses experienced challenges because of lacking infrastructure and skills. The study confirms Yao et al. (2024) by showing that cross-border e-commerce SMEs obtain major digital platform benefits but non-digitized organizations encounter larger adoption challenges. Marketing competency demonstrated a moderate impact on SME sustainability according to Olazo (2023) who proved that innovative marketing approaches boost SME competitive advantage. SMEs obtaining enhanced customer retention achieved better results through personalized marketing along with AI-based consumer analytics and social media engagement. The statistical analysis of marketing competency failed to establish its connection to business performance ( $p = 0.646$ ) according to the regression results. Marketing by itself does not lead to business success because companies need financial stability and strategic leadership to achieve their goals. Zhang, Yuan, and Su (2024) explain that marketing represents a vital component for SMEs but they need to integrate their marketing activities with operational efficiency and digital transformation strategies.

The research shows that sustainability initiatives demonstrate a negative relationship with short-term

business performance results. Our research verifies that businesses face problems with starting sustainability programs because of their initial price tag despite all their proven long-term advantages (Dey et al., 2022). The Malaysian manufacturing SME experienced higher initial costs from switching to eco-friendly raw materials which later led to better brand reputation and consumer trust. The research of Tran, Lau, and Ong (2024) supports the notion that sustainability innovation leads to improved organizational efficiency and extended business competitiveness. The advantages do not resolve the regulatory compliance challenges nor the financial restraints that multiple SMEs face. Islam et al. (2024) explain that sustainability needs to be harmonized with operational and financial sustainability through the Quadruple Bottom Line approach.

This research strengthens SME sustainability literature by establishing financial sustainability as the most influential factor for business success because organizations need stable revenue and reinvestment plans and financial stability to achieve long-term growth. The research contradicts traditional beliefs about digital transformation by showing that technology implementation alone does not ensure business expansion for SMEs until organizations align strategic goals with digital adoption while having sufficient financial resources. This research shows how organizations must bear initial monetary costs for sustainability and CSR investments which then result in better brand image and operational performance. The research shows that successful sustainable business adoption requires a combined approach of financial methods with marketing approaches leadership practices and sustainability principles for developing adaptable complete business frameworks. Practical implementation for SMEs includes developing sustainable financial resilience adopting digital transformation in stages and implementing sustainability solutions based on market demands. Financial support through subsidized loans combined with sustainability tax incentives should be established to assist SMEs in funding their green business practice expenses. Digital training programs need expansion to help SMEs master technology implementation while regulatory simplifications will boost sustainable initiative participation from SMEs. SMEs must use an approach that combines financial elements with technological and strategic considerations to maintain long-term sustainability. Sustainable competitive growth with scalability becomes achievable for Asia-Pacific SMEs through these enhancements in their business operations.

## 5. CONCLUSION

This study provides a comprehensive evaluation of the key management strategies influencing SME sustainability in the Asia-Pacific region, integrating quantitative (n=350) and qualitative (n=6) insights to identify financial sustainability, digital transformation, marketing competency, and sustainability initiatives as critical success factors. The findings confirm that financial sustainability ( $\beta = 0.064$ ,  $p = 0.039$ ) is the most significant predictor of long-term SME success, emphasizing the need for structured reinvestment, risk mitigation, and access to alternative financing. Additionally, while digital transformation ( $p = 0.338$ ) enhances operational efficiency, its effectiveness is contingent upon strategic alignment with financial and business planning. The study also highlights the short-term financial constraints associated with sustainability investments ( $\beta = -0.091$ ,  $p = 0.008$ ), reinforcing the importance of regulatory support and financial incentives to encourage SME participation in green

business practices. Case study insights further reveal that SMEs implementing AI-driven automation saw a 30% increase in sales conversion, while those shifting to green raw materials achieved a 40% reduction in waste. However, SMEs that over-invested in digital transformation without financial planning failed within two years, demonstrating the necessity of balancing innovation with fiscal discipline. Practical recommendations include the introduction of subsidized loans, tax incentives for sustainable initiatives, regulatory simplifications, and enhanced digital training programs to support SMEs in navigating sustainability challenges. By adopting an integrated approach that balances financial stability, technological innovation, and sustainability-driven strategies, SMEs can achieve long-term resilience, scalability, and competitiveness. This research contributes valuable insights to the SME sustainability discourse, offering empirical evidence and strategic frameworks to support sustainable business practices in dynamic market environments.

## REFERENCE

- Abdul Ghani Azmi, I., Che Hashim, R., Mohamed, H. A. B., & Sahol Hamid, N. (2023). A Study of Muslim Women Entrepreneurs' SMEs Challenges and Motivation in the Asia Pacific Region. In *Open Innovation in Small Business: Creating Values for Sustainability* (pp. 195-213). Singapore: Springer Nature Singapore.
- Astuty, E., Sudirman, I. D., & Aryanto, R. (2024). Sustainable resilience strategy: unleash the micro-businesses' potential in the digitalization and sustainability era. *Cogent Business & Management*, 11(1), 2313672.
- Curado, C., Jesus, M., & Bontis, N. (2022). SMEs managers' perceptions of MCS: a mixed methods approach. *Journal of Small Business Strategy*, 32(4), 30-47.
- Dey, P. K., Malesios, C., De, D., Budhwar, P., Chowdhury, S., & Cheffi, W. (2022). Circular economy to enhance sustainability of small and medium sized enterprises. In *Supply chain sustainability in small and medium sized enterprises* (pp. 10-45). Routledge.
- Factor, A., & Ulhøi, J. P. (2021). *Sustainability and Small and Medium-sized Enterprises*. Routledge. DOI, 10, 9780429426377.
- Hassan, M. H. A., Shari, W., Wahab, N. A., Ezanee, A. A. M., & Wahab, N. M. A. (2023). Towards Sustainable Small and Medium Enterprises (SMEs): Awareness and Overcoming Challenges. *Asia-Pacific Management Accounting Journal*, 18(3).
- Ho, C. S. M., Chiu, M. M., Chiu, S. W. K., & Liu, L. C. K. (2024). Development and validation of the adolescent's entrepreneurial attributes inventory: A mixed-methods approach. *The International Journal of Management Education*, 22(3), 101033.
- Islam, A., Wahab, S. A., & Tehseen, S. (2024). Rethinking holistic sustainable growth of Malaysian SMEs: a University Helix-Quadruple Bottom Line perspective. *International Journal of Innovation Science*.
- Oka, I. M. D., & Subadra, I. N. (2024). Digital marketing for sustainable tourism village in Bali: A mixed methods study. *Journal of Infrastructure, Policy and Development*, 8(7), 3726.
- Olazo, D. B. (2023). Marketing competency, marketing innovation and sustainable competitive advantage of small and medium enterprises (SMEs): a mixed-method analysis. *Asia Pacific Journal of Marketing and Logistics*, 35(4), 890-907.
- Paul, J. *Trends in Asia Pacific Business and Management Research*.
- Raman, R., Leal Filho, W., Martin, H., Ray, S., Das, D., & Nedungadi, P. (2024). Exploring sustainable development goal research trajectories in small island developing states. *Sustainability*, 16(17), 7463.
- Ray, A., Sachdeva, I., Rana, N. P., Nunkoo, R., & She, L. (2024). Is the information on green hotel websites aligned with the drivers affecting customers' intention to visit green hotels? A mixed-methods

- approach. *Journal of Hospitality Marketing & Management*, 33(1), 1-32.
- Rowley, C., & Paul, J. (Eds.). (2022). *Trends in asia pacific business and management research: Relevance and use of literature reviews*. Routledge.
- Sherman, L., Halila, H., & Chappell, K. (2024). An Overview of Continuing Medical Education/Continuing Professional Development Systems in Europe: A Mixed Methods Assessment. *Journal of CME*, 13(1), 2435731.
- Soltaninezhad, A., Sharifabadi, A. M., Ahmadabadi, H. Z., & Jafarnejad, A. (2021). Developing a model for strategic agility in knowledge-based companies using a mixed methods approach. *Journal of Industrial Engineering and Management*, 14(2), 176-198.
- Wang, X., Zeng, Y., Lai, Q., & Lin, M. S. (2024). Why do start-up tourism small and medium-sized enterprises imitate? A mixed-methods research design. *Journal of Hospitality and Tourism Management*, 61, 11-22.
- Williams, C., Krumay, B., Schallmo, D., & Scornavacca, E. (2024). Digital maturity model for SMEs: validation through a mixed-method approach. *Pacific Asia Journal of the Association for Information Systems*, 16(1), 2.
- Yao, G., Dato'Mansor, Z., Ghazali, H. B., & Yan, Z. (2024). A comprehensive mixed-methods study on cross-border e-commerce SMEs, digital transformation and dynamic managerial capabilities. *Environment and Social Psychology*, 9(4), 2255.
- Yap, W. M. (2023). *A mixed methods study of affective well-being among SME employees in Malaysia* (Doctoral dissertation, University of Nottingham).
- Zhang, Y., Yuan, Y., & Su, J. (2024). Systematic investigation of the logistics service quality of cross-border e-commerce: a mixed-methods perspective. *Asia Pacific Journal of Marketing and Logistics*, 36(3), 549-564.