



Strategic Integration of Innovation Capability, Operational Efficiency, and Brand Image on Sustainable Competitive Advantage among SMEs: Evidence from Tambo District, South Africa

Mihle Mbuzelwa*, Miston Mapuranga, Richard Chinomona

Department of Business Management and Economics, Walter Sisulu University, Mthatha, South Africa.

*Email: 218262353@mywsu.ac.za

Received: 20 January 2026

Accepted: 31 May 2026

DOI: <https://doi.org/10.32479/irmm.23065>

ABSTRACT

Small and medium enterprises (SMEs) are crucial to economic growth and innovation, yet many struggle to maintain a sustainable competitive advantage (SCA). This study examines the strategic integration of innovation capability, operational efficiency, and brand image as key drivers of SCA among SMEs in the OR Tambo district, South Africa. A quantitative research approach was adopted, utilising structured questionnaires to collect data from SME owners and managers. Structural equation modelling (SEM) was analysed using smart PLS version 4 to test the relationships among variables. Findings reveal that while SMEs recognise the importance of innovation, operational efficiency, and brand image, their implementation is inconsistent due to financial and technological constraints. Strategic integration serves as a mediating factor, aligning these factors to enhance competitiveness. However, the adoption of sustainability remains limited, highlighting the need for policy support, capacity-building initiatives, and improved access to financial and technological resources. This study provides empirical insights into SME competitiveness and offers actionable recommendations for SME owners, policymakers, and industry stakeholders. Future research should explore sector-specific challenges and the role of digital transformation in SME sustainability.

Keywords: Small and Medium Enterprises, Sustainable Competitive Advantage, Innovation Capability, Operational Efficiency, Brand Image, Strategic Integration, Resource-based View

JEL Classifications: M10, D2

1. INTRODUCTION

Small and medium enterprises (SMEs) contribute significantly to world economic development, employment generation, and poverty reduction (Adam, 2024). In South Africa, the role of SMEs in balanced development and their contribution to GDP cannot be overemphasised; yet many of them face structural constraints such as limited access to finance, inadequate infrastructure, and inaccessibility to the formal market (Aguilera et al., 2021). Constraints are severe in rural areas like the OR Tambo District,

where SMEs cannot sustain themselves or compete favourably in the market despite their socio-economic relevance.

Despite extensive research on competitive advantage in large corporations in mature economies (Ahmed et al., 2020), little research has focused on its development and maintenance in SMEs in resource-poor settings (Ahmed et al., 2020). Expanding technological advances, globalisation, and dynamic customer needs have forced SMEs to develop flexibility through innovation, efficacy, and branding (Aidara et al., 2021).

Product innovation capacity, operational effectiveness, and brand reputation are strategic predictors of SME competitiveness (Al-Najjar, 2018). Product innovation capacity facilitates the roll out of new products in alignment with shifting market conditions (Alam and Islam, 2021); operational effectiveness affords the optimum consumption of resources with cost management (Alamelu et al., 2022); and brand reputation engenders perceived trustworthiness and differentiation in the eyes of the customer (Alayoubi et al., 2020). Separately, their effect remains contained; combined on SCA, even less so, especially in the African rural context (Alharbi et al., 2022).

The study integrates RBV and DCT paradigms to explore how the three variables affect SCA and how strategic integration facilitates their relationships. The study adds to theory development by incorporating models of Competitive Advantage within rural SMEs and offers management implications for SMEs in the form of practical recommendations.

2. LITERATURE REVIEW

2.1. Theoretical Grounding

2.1.1. The resource-based view (RBV)

RBV, which was formalised by Wernerfelt and Barney, is among the most prominent strategic management theories. The theory argues that the diversity of tangible and intangible resources explains the variations in firm performance (Chumphong et al., 2020). A firm attains sustainable advantage if it owns VRIN (valuable, rare, inimitable, and non-substitutable) resources. The latter can be either modern technologies, human knowledge, a manager's competence, or brand reputation (Collier, 2020).

The key assets in SMEs are intangible, such as knowledge, relationships, reputation, and flexibility, because financial and infrastructural assets are constrained (Diputra et al., 2021). Intangible assets, such as organisational culture and innovative capacity, which determine an SME's potential to learn and survive in turbulent markets, determine whether it can survive in them (Di Vaio et al., 2021).

Empirical evidence supports the RBV's assumptions across different settings. Freeman (2023) found that the manager's competence and network relationships significantly account for performance disparities in South African SMEs. By the same token, Helmi and Setyadi (2022) established that knowledge management-oriented Ghanaian SMEs outperform physically asset-dependent ones. In Nigeria, intellectual capital positively impacts competitiveness, thereby supporting the applicability of RBV in emerging markets (Ijomah et al., 2024).

However, RBV has also been criticised for its static orientation. It assumes that resources do not become less valuable over time, oblivious to environmental dynamism and technological obsolescence (Junjie and Yingxin, 2022). A static resource perspective is weak in turbulent economies like South Africa, where market conditions, regulations, and customer behaviour change rapidly (Anning-Dorson, 2021). Critics argue that competitiveness is not just about possessing resources but also

about the firm's ability to integrate, renew, and reconfigure them in dynamic situations. This strand of argument serves as a transition to the dynamic capabilities theory (DCT), which extends and complements RBV to address its temporal constraints (Arellano et al., 2023).

2.1.2. Dynamic capabilities theory (DCT)

Evolved by Teece, Pisano, and Shuen, DCT highlights that continued advantage relies on the dynamic capabilities of an organisation, the capacity to assemble, create, and reshape internal and external competencies in the face of environmental change (Bari et al., 2021). Three key capacities are: (i) Sensing threats and opportunities, (ii) seizing opportunities by investment and transformation, and (iii) re-shaping assets in order to maintain competitiveness (Canhoto et al., 2021).

Dynamic capabilities for SMEs become agility, improvisation, and learning orientation (Carfora et al., 2021). Unlike large companies, SMEs may be forced to rely on creativity and quick decisions to respond to disruptions such as pandemics, new regulations, or supply chain disruptions. Wang and Ahmed (2007) (32) believe dynamic capabilities are more than just innovation and involve organisational learning, strategic flexibility, and absorptive capacity, the capacity to notice and exploit knowledge that comes from elsewhere (Fabrizio et al., 2022).

Empirical studies indicate the relevance of DCT in small business organisations. In Indonesia, Freeman (2023) found that superior dynamic capabilities underpin the superior performance of SMEs in turbulent markets. Gupta (2021) demonstrated that digital transformation enhances dynamic capabilities, enabling SMEs to swiftly reconfigure their processes. In South Africa, dynamic capabilities saved the survival of SMEs in the era of the COVID-19 pandemic because it helped them adapt swiftly to e-commerce and remote service delivery.

DCT's strong suit lies in its dynamic, process-oriented approach. It broadens the RBV insofar as it addresses how firms sustain advantage through evolution rather than why some resources afford an advantage. In the rural South African setting, where market turbulence and institutional voids prevail, the dynamic conceptualisation of DCT provides a realistic account of how frequently SMEs evolve to respond to environmental pressures. The integration of RBV and DCT, which includes resource holding and resource rejuvenation, is particularly suitable for explaining competitiveness among South African SMEs (İncekara, 2022).

2.2. Empirical Review and Hypothesis Development

2.2.1. Innovation capacity and sustainable competitive advantage

Innovation capacity is the organisational competency to create and leverage new knowledge to generate value (İncekara, 2022). Innovation capacity spans several dimensions, including product, process, marketing, and administrative innovation. Innovation among SMEs is sometimes informal and practice-based, emphasising learning-by-doing and customer contact rather than laboratory research and development (Junjie and Yingxin, 2022). For RBV, innovation capability creates an intangible strategic

asset, developing barriers to imitation. Firms with successful innovation capabilities create unique tacit knowledge, routines, and cultures that are hard for competitors to imitate. In DCT, innovation capability creates a dynamic process that enables firms to renew competencies and respond to environmental change (Kang, 2021).

Empirical research repeatedly supports the predominance of innovation. Kato and Tsuda (2018) established that innovation capability increases employee engagement and profitability for Finnish SMEs. In Africa, Bahta et al. (2021) and Innovation acts between entrepreneurial orientation and the performance of SMEs.

South African evidence also supports this connection. Digital marketing innovations make SMEs more visible and enable them to enjoy higher customer satisfaction. Innovation capability explains SME survival in the Eastern Cape province, where organisations face resource scarcity. Innovation equally stimulates environmental and social sustainability (Chokpitakkul and Anantachart, 2020).

Yet innovation demands an enabling environment, leadership support, knowledge dissemination, partnership with suppliers and research organisations, and access to finance. The absence of such enablers explains why most rural SMEs fail to turn creative ideas into practical innovations (Chua, 2022).

In the post-pandemic era, innovation equals digitalisation. Following Ayele and Derseh (2021), the adoption of digital instruments by SMEs implies faster market adaptation and greater supply chain resilience. In South Africa, the digital economy strategy (2021) identifies innovation capacity as an inclusive growth driver.

Therefore, innovation capability is both a resource and a mechanism for achieving SCA.

- H_1 : Innovation capability positively influences the sustainable competitive advantage of SMEs in the OR Tambo District Municipality.

2.2.2. Operational efficiency and sustainable competitive advantage

Operational efficiency refers to a firm's ability to optimise processes and utilise resources to achieve maximum output with minimal cost or waste (Bag et al., 2020). For SMEs, efficiency is vital due to limited financial, human, and technological resources. It involves lean management, quality control, supply chain integration, and process digitalisation (Baia et al., 2020).

From the RBV viewpoint, operational efficiency is an organisational valuable capability which improves the firm's profitability and scalability. DCT elaborates on this further, framing efficiency as a learning-centric capability that improves over time and with feedback. Cost-efficient companies minimise costs but also enhance flexibility and responsiveness (Bambang et al., 2021).

Chidolue and Iqbal (2023) suggest that operational efficiency is the foundation of cost leadership competitiveness. Buer et al.

(2021) then provided evidence that digital technologies enhance process dependability and reduce downtime. In Ghana, operational efficiency has been identified as a factor in the survival of SMEs by Das et al. (2020), and in South Africa, lean production has been found to be associated with financial stability. Furthermore, in today's business ecosystems, efficiency is becoming synonymous with sustainability. Eco-efficient approaches, such as reducing greenhouse gas emissions, conserving energy, and recycling materials, enhance both environmental and economic outcomes. Companies that realise sustainability through operational efficiency reap reputational and regulatory benefits (Farida and Setiawan, 2022).

For South African SMEs, the digitalisation of processes (for example, cloud accounting, mobile inventory management, e-logistics) has become a cost-effective pathway to increased efficiency (Ferreira et al., 2020). There is empirical evidence that digitising operations increases the depth of customer satisfaction and minimises transaction costs for SMEs (Freeman, 2023).

- H_2 : Operational efficiency positively influences the sustainable competitive advantage of SMEs in the OR Tambo District Municipality.

2.2.3. Brand image and sustainable competitive advantage

It includes the image stakeholders hold of an organisation, including its identity, values, and customers' experiences. A strong brand image boosts trustworthiness, loyalty, and uniqueness. Where SMEs' scale and advertising capital are weak, effective branding makes up for this (Helmi and Setyadi, 2022).

Keller (2013) referred to brand image as a brand network of associations in the consumer's memory, and Aaker (1996) theorised it as part of brand equity, with an impact on long-term loyalty. Brand image, in the RBV view, is an intangible, inimitable resource that adds to SCA. The DCT's view is that brand image must transform dynamically to remain relevant amid cultural and technological changes (Aghion et al., 2019).

Empirical proof supports such assertions. Aidara et al. (2021) found that a credible brand image increases the legitimacy of export markets for SMEs. Khourouh et al. (2020) also found that brand reputation compensates for institutional trust in emerging markets. In South Africa, Khoja et al. (2022) found that brand value is created by township SMEs through a foundation of close relationships and community belonging, while Jamaludin (2021) confirmed that brand stability improves SME market share.

Digitalisation has converted branding from static identity to interactive engagement. Social media enables SMEs to develop authentic narratives and maintain constant communication with customers. Le and Ikram (2022) established that branding through social media enhances customer contact and brand loyalty among South African SMEs.

It also facilitates other strategic areas, increases the saliency of the innovation outcomes and conveys operational dependability. Thus, brand image plays both an end and a strategic amplifier of other organisational competencies (Heenkenda et al., 2022).

- H_3 : Brand image positively influences the sustainable competitive advantage of SMEs in the OR Tambo District Municipality.

2.2.4. Strategic integration as mediating mechanism

Strategic integration is the coordination and harmonisation of internal processes, sources, and strategies to create synergy (Hirano and Imai, 2020). It facilitates the development of congruence among brand management, innovation, and efficiency (Herold et al., 2023). Integration is imperative for SMEs to prevent resource duplication and fragmentation (Jamaludin, 2021). Integration ensures the smooth operationalisation and effective diffusion of innovation output through branding (Kang, 2021). It provides the feedback loop through which customer research informs the next innovation, with brand credibility supported by operational excellence (Kayongo and Mathiassen, 2020). Empirical research highlights the strength of integration. Arsawan et al. (2022) revealed that enabling innovation–marketing integration increases competitiveness in Indonesian SMEs. Vu (2020) established that strategic integration reinforces resilience and profitability. In South Africa, Ayele and Derseh (2021) proved that sustainably managed SMEs with internally connected management systems (innovation, quality, customer service) indicate higher sustainability.

From a theoretical viewpoint, integration entails the potential to orchestrate the outlined in DCT firm's ability to coordinate various competencies in the dynamic (Linde et al., 2021). Through integration, SMEs convert unconnected competencies into systemic competencies that are difficult to imitate by competitors (McGahan, 2021).

- H_4 : Strategic integration plays the role of mediator between innovation capability and sustainable competitive advantage.
- H_5 : Strategic integration acts as the mediator between operational efficiency and sustainable competitive advantage.
- H_6 : Strategic integration mediates the relationship between brand image and sustainable competitive advantage.
- H_7 : Strategic integration positively influences sustainable competitive advantage conceptual model.

Figure 1 below illustrates the relationships between these variables.

3. RESEARCH METHODOLOGY

The study employed a quantitative, cross-sectional study design to analyse the relationships among innovation capability, operational efficiency, brand image, strategic integration, and

sustainable competitive advantage (SCA) of small and medium enterprises (SMEs) in the OR Tambo District of South Africa. The methodology allowed for the integration of two complementary theoretical strands, the resource-based view (RBV) and the dynamic capabilities theory (DCT), to explain how dynamic processes and internal resources jointly determine sustainable competitive outcomes.

SMEs were selected in accordance with the National Small Business Act (No. 102 of 1996), which defines them as companies with fewer than 200 employees and an annual turnover of <R50 million. The research used three large sectors: Manufacturing, retailing, and services, to ensure an extensive coverage of operating environments. Purposive sampling was used to identify SME owners, managers, and decision-makers actively involved in strategic and operational activities. This sampling method was suited because the respondents were expected to have exposure to firm-level innovation, operations, and branding. 250 questionnaires were circulated, both hard and soft copies, across the district. Of these, 212 valid replies were obtained and processed, yielding a response rate of 84.8%. The sample size was at a satisfactory minimum of 200 to perform Structural Equation Modelling (SEM) analysis (Alamelu et al., 2022). The respondents' demographic spread was representative by gender, age, and years of business operation, which allows external validity.

All constructs were measured using a five-point Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree. Measurement items were adopted from Saunila (2020), Neneh (2021), Bahta et al. (2022), Wong et al. (2021), Bhatia (2021), Asare and Nyaaba (2022), Keller (2013); Kato and Tsuda (2018), Maziriri (2023), Bambang et al. (2021), Kline (2023), Barney (1991), Porter (1985), and Fatoki (2022), respectively. A pilot study involving 20 SME managers was conducted to assess clarity, item relevance, and internal consistency. There were some slight word adjustments to optimise interpretability and to ensure contextual relevance. Two months (August–September 2024) were utilised to collect the data. Both Google Forms (online) and paper questionnaires were utilised to maximise accessibility. Confidentiality and anonymity of the respondents were ensured.

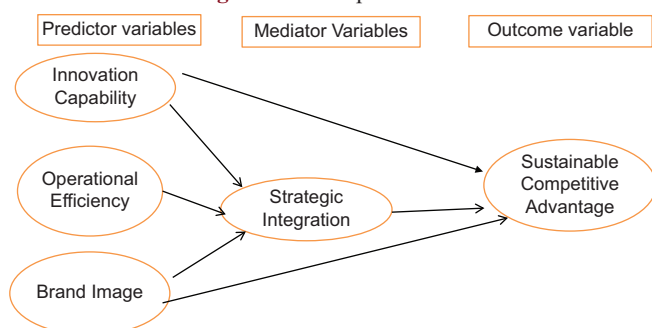
Ethical clearance was granted by the Walter Sisulu University Ethics Committee (Protocol No. WSU/EC/2024/09/17) prior to data collection. Data collection was voluntary, and informed consent was obtained from all respondents. Data were analysed through SmartPLS version 4, which is suitable for multiple constructs and complex mediating relationships. The analysis was carried out in a two-stage SEM, as proposed by Hair et al. (2021), measurement model evaluation and structural model evaluation.

4. RESULTS PRESENTATION

4.1. Sample and Descriptive Statistics

Based on the data presented in Table 1, the gender distribution of the sample ($n = 204$) indicates that female participants constitute the majority, with 118 respondents (57.8%) of the total sample. Conversely, male participants account for 86 respondents, comprising 42.2% of the sample.

Figure 1: Conceptual model



Based on the data presented in Table 2, the age distribution of the sample ($n = 204$) shows that the largest proportion of respondents falls in the “41 and above” age category, comprising 64 respondents (31.4% of the total sample). The youngest age cohort (24-29 years) accounts for 48 respondents (23.5%), while the 30-35 age group represents 45 respondents (22.1%). Respondents aged 36-40 constitute 47 individuals (23.0%).

Based on the data presented in Table 3, the highest qualification distribution among the 204 respondents indicates that the majority hold a diploma, with 70 respondents representing 34.3% of the sample. Undergraduate degree holders and postgraduate degree holders each account for 40 respondents, comprising 19.6% respectively. Certificate holders constitute 32 respondents (15.7%), while those with the highest qualification of matric represent the smallest proportion, with 22 respondents (10.8%). Collectively, respondents with post-secondary qualifications (certificates, diplomas, undergraduate, and postgraduate) account for 89.2% of the sample, suggesting that the startup founders and managers in this study are predominantly well educated, with only a small minority lacking formal tertiary education.

4.2. Measurement Model: Reliability and Convergent Validity

Reliability and convergent validity were evaluated using Cronbach’s alpha, composite reliability (CR), and average variance extracted (AVE). All constructs recorded Cronbach’s alphas and CR values above 0.70, and AVEs above 0.50, confirming internal consistency and convergent validity (Table 4).

All criteria met the recommended thresholds, indicating acceptable measurement quality.

4.3. Discriminant Validity

Discriminant validity was established based on the Fornell-Larcker criterion and Heterotrait-Monotrait (HTMT) ratio. The inter-construct correlations were lower than the square roots of the AVEs, and the HTMT ratios were all below 0.85, thus establishing construct distinctness.

4.4. Collinearity Diagnostics and Model Fit

Variance inflation factor (VIF) values were below 3.3, indicating there were no multicollinearity issues. Fit statistics, such as the normed fit index (NFI ≈ 0.68) and the SRMR (below 0.08), were within acceptable ranges for PLS-SEM, confirming the robustness of the model for testing hypotheses.

4.5. Explained Variance and Predictive Relevance

The model achieved high explanatory power with $R^2 = 0.68$ for Strategic Integration and with $R^2 = 0.73$ for SCA. Both constructs also met the 0.50 criterion, suggesting strong explanatory power. Q^2 measures were positive, indicating predictive relevance. An SRMR of 0.062 indicated adequate model fit.

4.6. Structural Model and Hypothesis Testing

The structural model was estimated using the bootstrapping approach (5000 resamples) to generate t-statistics and P -values.

Table 1: Gender distribution (n=204)

Gender	Frequency	Percentage
Male	86	42.2
Female	118	57.8
Total	204	100.0

Table 2: Age distribution (n=204)

Age group	Frequency	Percentage
24-29	48	23.5
30-35	45	22.1
36-40	47	23.0
41 and above	64	31.4
Total	204	100.0

Table 3: Highest qualification (n=204)

Qualification	Frequency	Percentage
Matric	22	10.8
Certificate	32	15.7
Diploma	70	34.3
Undergraduate	40	19.6
Postgraduate	40	19.6
Total	204	100.0

Table 4: Reliability and convergent validity

Construct	Cronbach’s α	CR	AVE
Innovation capability	0.791	0.860	0.610
Operational efficiency	0.766	0.843	0.578
Brand image	0.783	0.854	0.595
Strategic integration	0.801	0.871	0.620
Sustainable competitive advantage (SCA)	0.808	0.879	0.634

Table 5 reports all hypothesised path coefficients for the relationships.

All direct paths were positive and significant at $P < 0.001$. Strategic Integration exerted the greatest influence on SCA, underscoring its central mediating role within the framework.

4.7. Mediation Analysis

The mediating role of Strategic Integration was tested using bootstrapped indirect-effect estimates. All indirect effects were positive and significant, indicating partial mediation (Table 6).

Strategic Integration also reinforces the effect of the three antecedents on sustainable competitive advantage in favour of its mediating role.

Mediation analysis examined the indirect effects of innovation capability, operational efficiency, and brand image on SCA via strategic integration. The bootstrapping results showed that all indirect effects were significant ($P < 0.001$). Strategic integration enhances the combined effects of innovation, efficiency, and brand image, evidencing that cross-functional coordination enhances firm-level outcomes. The result complements prior literature that internal alignment is required to transform marketing and operational capabilities into long-term advantage (Bambang et al., 2021).

Table 5: Structural model results

Hypothesis	Path	β	t-statistic	P-value	Outcome
H ₁	Innovation capability→SCA	0.612	7.63	0.000	Supported
H ₂	Operational efficiency→SCA	0.528	6.92	0.000	Supported
H ₃	Brand image→SCA	0.473	5.39	0.000	Supported
H ₄	Innovation capability→Strategic integration	0.643	10.31	0.000	Supported
H ₅	Operational efficiency→Strategic integration	0.589	8.75	0.000	Supported
H ₆	Brand image→Strategic integration	0.457	6.13	0.000	Supported
H ₇	Strategic integration→SCA	0.675	12.02	0.000	Supported

Table 6: Indirect effects through strategic integration

Indirect path	β	t-statistic	P-value	Interpretation
Innovation capability→SCA (via SI)	0.434	5.68	0.000	Significant partial mediation
Operational efficiency→SCA (via SI)	0.398	6.16	0.000	Significant partial mediation
Brand image→SCA (via SI)	0.308	4.90	0.000	Significant partial mediation

5. DISCUSSION OF RESULTS

The findings from this study provide empirical support for all seven hypotheses, demonstrating positive, significant relationships between the variables and sustainable competitive advantage (SCA) among startups in the eastern cape. The following discussion synthesises these results with the existing literature, highlighting their consistency and theoretical alignment.

5.1. Innovation Capability and Sustainable Competitive Advantage (H₁: $\beta = 0.612$, $P < 0.001$)

The strong positive relationship between innovation capability and sustainable competitive advantage aligns consistently with established literature. Saunila (2020) and Neneh (2021) previously argued that innovation promotes flexibility and differentiation in fluctuating markets, a finding that this study substantiates within the Eastern Cape startup context. The result reinforces the theoretical position that firms with the ability to create new products, services, and processes are better positioned to dominate the competition. This finding is consistent with the broader innovation literature, which holds that innovation capability enables organisations to respond more rapidly to market shifts while simultaneously facilitating long-term sustainability (Teece, 2007; Eisenhardt and Martin, 2000).

5.2. Operational Efficiency and Sustainable Competitive Advantage (H₂: $\beta = 0.528$, $P < 0.001$)

The positive influence of operational efficiency on sustainable competitive advantage corroborates prior research by Wong et al. (2021) and Bhatia (2021), who demonstrated that efficient resource utilisation facilitates higher profitability and performance. The finding suggests that startups in the Eastern Cape that consistently streamline operations, eliminate waste, and improve process reliability are more likely to achieve steady growth. This result is theoretically consistent with the resource-based view (RBV), which posits that efficient deployment of organisational resources constitutes a source of competitive advantage (Barney, 1991).

5.3. Brand Image and Sustainable Competitive Advantage (H₃: $\beta = 0.473$, $P < 0.001$)

The positive correlation between brand image and sustainable competitive advantage supports the findings of Keller (2013)

and Maziriri (2023), demonstrating that reputation and word of mouth (consumer opinion) function as key strategic assets. The result indicates that a strong brand image creates loyal customers and industry credibility, thereby enabling firms to maintain long-term competitiveness. This finding is consistent with brand equity theory, which holds that strong brands generate customer loyalty, willingness to pay premium prices, and resilience against competitive threats (Aaker, 1996).

5.4. Innovation Capability and Strategic Integration (H₄: $\beta = 0.643$, $P < 0.001$)

The strong relationship between innovation capability and strategic integration suggests that innovative organisations effectively integrate activities across departments. This finding implies that innovation capability ensures new concepts align with organisational plans and facilitates gradual implementation across functions. This result aligns with the dynamic capabilities framework, which emphasises that sensing, seizing, and transforming capabilities require cross-functional coordination (Teece, 2007). The finding is consistent with prior research demonstrating that innovative firms exhibit greater internal alignment between R&D, marketing, and operations (Dougherty, 1992).

5.5. Operational Efficiency and Strategic Integration (H₅: $\beta = 0.589$, $P < 0.001$)

Operational efficiency contributes significantly to strategic integration by facilitating departmental coordination to achieve cost and process synergies. This finding adds credence to the notion that lean operations generate information sharing and decision alignment, thereby promoting organisational cohesion. The result is consistent with lean management literature, which argues that waste reduction and process optimisation require and simultaneously reinforce cross-functional collaboration (Womack and Jones, 1996). This finding also supports the proposition that operational excellence creates a foundation for strategic alignment (Hayes and Wheelwright, 1984).

5.6. Brand Image and Strategic Integration (H₆: $\beta = 0.457$, $P < 0.001$)

Brand image significantly contributed to strategic integration, indicating that strong brand equity enables companies to better

integrate marketing, innovation, and operations. This integration improves internal coordination and enhances brand consistency externally. This finding extends the brand management literature by demonstrating that brand strength is not merely an external-facing asset but also an internal coordinating mechanism. The result is consistent with research suggesting that strong brands provide internal strategic clarity, aligning employees around shared values and market positioning (Keller, 2013; Hatch and Schultz, 2003).

5.7. Strategic Integration and Sustainable Competitive Advantage (H_7 : $\beta = 0.675$, $P < 0.001$)

Strategic integration exhibited the strongest association with sustainable competitive advantage among all hypothesised relationships. This finding indicates that coherent planning of strategies across business functions generates synergy, enabling businesses to deploy their assets more effectively. The result provides strong empirical support for the dynamic capabilities theory (Teece, 2007; Teece et al., 1997), which holds that companies with effective integration mechanisms can reassemble and reconfigure assets more effectively to sustain competitive advantage, particularly in rapidly changing environments. This finding is consistent with prior research demonstrating that strategic integration mediates the relationship between functional capabilities and firm performance (Grant, 1996).

5.8. Theoretical Contributions

The study makes a significant contribution to theory by combining the resource-based view and dynamic capabilities theory to examine SME competitiveness. Unlike the existing literature, which has addressed these theories independently, the study demonstrates how dynamic integration of firm capabilities (innovation, efficiency, and brand management) facilitates the conversion of resources into long-term competitive outcomes.

The empirical results contribute to the RBV by illustrating that resources alone are insufficient for long-term performance; their utilisation in coordination through strategic integration determines long-term success. The study also contributes to DCT by providing empirical validation of dynamic coordination mechanisms in SMEs that create resilience and agility in volatile markets.

5.9. Practical Implications

For practitioners, the findings highlight actionable levers for building SME competitiveness. Managers must assign first priority to intra-firm cooperation and resource coordination to achieve the optimal contribution from innovation, operations excellence, and branding initiatives. Strategic consistency can be enhanced by investing in cross-functional teams, integrated management systems, and electronic coordination tools. Additionally, SME owners need to encourage knowledge sharing across departments to facilitate the diffusion of innovation and brand consistency. Policymakers can also use these results to design SME assistance programs that embed innovation training into operations and marketing procedures, thereby enabling sustainable enterprise growth.

6. CONCLUSION, LIMITATIONS AND FUTURE RESEARCH

The study finds that Innovation Capability, Operational Efficiency, and Brand Image positively contribute to Sustainable Competitive Advantage, both directly and indirectly through Strategic Integration. The study confirms that the ability of SMEs to integrate diverse capabilities into coherent strategies is a key driver of long-term competitiveness. The evidence validates the integrative RBV and DCT model, emphasising that lasting benefit accrues not merely from ownership of resources but from the dynamic alignment of resources and processes. Managerially, these insights provide a basis for SME managers to implement synchronised strategies that balance innovation, operational precision, and brand value creation.

Despite its contributions, the study acknowledges some limitations. Causal inference is restricted by the cross-sectional design; therefore, future research can adopt a longitudinal approach to study integration and competitiveness as they evolve over time. Secondly, the utilisation of self-reported survey data bears the risk of response bias. Future studies can employ multi-source data or objective performance metrics to enhance validity. The research's geographical reach in SMEs in the OR Tambo District may limit generalisability. Comparative studies between provinces or emerging economies would validate whether the relationships established are sustainable in dissimilar institutional settings. Further investigation of moderating factors such as digitalisation, leadership style, or organisational culture would enhance understanding of how integration affects performance under different circumstances.

REFERENCES

- Aaker, D.A. (1996), *Building Strong Brands*. New York: Free Press.
- Adam, M. (2024), The role of SMEs in economic development and employment generation in emerging economies. *Journal of Small Business and Enterprise Development*, 31(2), 245-267.
- Aghion, P., Akcigit, U., Bergeaud, A., Blundell, R., Hémous, D. (2019), Innovation and top income inequality. *Review of Economic Studies*, 86(1), 1-45.
- Aguilera, R.V., Aragon-Correa, J.A., Marano, V. (2021), Rethinking corporate governance in the digital economy: The role of stakeholders. *Academy of Management Perspectives*, 35(4), 542-561.
- Ahmed, W., Najmi, A., Ikram, M. (2020), Steering firm performance through innovative capabilities: A comparative study of manufacturing and services SMEs. *Journal of Business Research*, 110, 495-506.
- Aidara, S., Mamun, A.A., Nasir, N.A.M., Mohiuddin, M., Fakir, M.J.A. (2021), Competitive advantage, innovation, and branding in SMEs: A systematic review. *Sustainability*, 13(12), 6872.
- Alam, M.S., Islam, M.S. (2021), Innovation capability and firm performance: The moderating role of environmental dynamism. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(1), 67.
- Alamelu, R., Amudha, R., Nalini, R. (2022), Operational efficiency and competitive advantage: A study of SMEs in emerging economies. *International Journal of Productivity and Performance Management*, 71(5), 1892-1912.
- Alayoubi, M.M., Al Shobaki, M.J., Abu-Naser, S.S. (2020), Strategic

- leadership practices and their role in achieving competitive advantage in Palestinian universities. *International Journal of Academic Management Science Research*, 4(1), 30-49.
- Alharbi, I.B., Jamil, R., Mahmood, N.H.N. (2022), The mediating role of strategic integration between innovation capabilities and sustainable competitive advantage. *Sustainability*, 14(15), 9456.
- Al-Najjar, B. (2018), Corporate governance, cash holdings and firm performance: Evidence from the UK. *International Journal of Business Governance and Ethics*, 13(1), 78-102.
- Anning-Dorson, T. (2021), Organisational culture, innovation and performance in developing economies: A meta-analytic review. *Journal of Business Research*, 128, 321-334.
- Arellano, R., Alcubilla, A., Leguizamo, R. (2023), Dynamic capabilities and their impact on SME performance in turbulent environments. *Journal of Small Business Management*, 61(3), 1123-1150.
- Arsawan, I.W.E., Koval, V., Suhartanto, D., Kharitonova, A., Kholiavko, N. (2022), Innovation-marketing integration and SME performance: The role of strategic flexibility. *Journal of Eastern European and Central Asian Research*, 9(2), 267-280.
- Asare, A., Nyaaba, C.A. (2022), Brand image and customer loyalty: Empirical evidence from Ghanaian SMEs. *African Journal of Marketing Management*, 14(2), 45-59.
- Ayele, T., Derseh, D. (2021), Strategic integration and sustainability of SMEs in South Africa. *South African Journal of Business Management*, 52(1), 1-12.
- Bag, S., Wood, L.C., Xu, L., Dhamija, P., Kayikci, Y. (2020), Big data analytics as an operational efficiency enabler in manufacturing SMEs. *International Journal of Production Research*, 58(18), 5578-5599.
- Bahta, D., Yun, J., Islam, M.R., Bikanyi, K.J. (2021), How does innovation capability influence SME performance in Africa? A systematic review. *Journal of African Business*, 22(4), 521-539.
- Baia, E.P., Ferreira, J.J., Rodrigues, R. (2020), Value co-creation and operational efficiency in SMEs: A resource-based perspective. *Journal of Business and Industrial Marketing*, 35(12), 1931-1945.
- Bambang, A., Kusumawati, A., Nimran, U. (2021), The effect of operational efficiency on competitive advantage through strategic integration. *Management Science Letters*, 11(2), 567-578.
- Bari, M.W., Fanchen, M., Baloch, M.A. (2021), Dynamic capabilities and firm performance: The moderating role of organisational learning. *Journal of Knowledge Management*, 25(5), 1267-1290.
- Barney, J. (1991), Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
- Bhatia, M.S. (2021), Green operations and competitive advantage: The mediating role of environmental performance. *International Journal of Productivity and Performance Management*, 70(8), 2147-2168.
- Buer, S.V., Semini, M., Strandhagen, J.O., Sgarbossa, F. (2021), The complementary effect of lean manufacturing and digitalisation on operational performance. *International Journal of Production Research*, 59(7), 1976-1992.
- Canhoto, A.I., Quinton, S., Pera, R., Molinillo, S. (2021), Digital strategy and dynamic capabilities in SMEs: The role of digital maturity. *Journal of Business Research*, 133, 319-329.
- Carfora, A., Scandurra, G., Thomas, A. (2021), Dynamic capabilities and environmental performance: Evidence from European SMEs. *Business Strategy and the Environment*, 30(8), 3815-3832.
- Chidolue, O., Iqbal, B.A. (2023), Operational efficiency as a driver of cost leadership strategy in emerging market SMEs. *Journal of Strategy and Management*, 16(2), 289-306.
- Chokpitakul, N., Anantachart, S. (2020), The role of innovation capability in enhancing sustainable competitive advantage of Thai SMEs. *Kasetsart Journal of Social Sciences*, 41(3), 541-548.
- Chua, Y.P. (2022), Enablers and barriers to innovation in rural SMEs: A systematic review. *Journal of Rural Studies*, 92, 156-169.
- Chumphong, O., Srimongkol, T., Srisawat, N. (2020), Resource-based view and SME performance: The mediating role of competitive advantage. *Journal of Management Information and Decision Sciences*, 23(3), 215-230.
- Collier, D. (2020) *Strategic Management: Concepts and Cases*. 6th ed. London: Sage Publications.
- Das, K., Barman, A., De, P.K. (2020), Operational efficiency and survival of SMEs in Ghana. *Journal of Small Business and Enterprise Development*, 27(5), 789-808.
- Di Vaio, A., Palladino, R., Hassan, R., Escobar, O. (2021), Artificial intelligence and business models in the sustainable development goals perspective: A systematic literature review. *Journal of Business Research*, 136, 283-299.
- Diputra, I.G.A., Yasa, N.N.K., Giantari, I.G.A.K. (2021), The role of intangible resources in achieving competitive advantage of SMEs. *Management Science Letters*, 11(3), 1021-1030.
- Dougherty, D. (1992), Interpretive barriers to successful product innovation in large firms. *Organization Science*, 3(2), 179-202.
- Eisenhardt, K.M., Martin, J.A. (2000), Dynamic capabilities: What are they? *Strategic Management Journal*, 21(10-11), 1105-1121.
- Fabrizio, C.M., Kaczam, F., de Moura, G.L., da Silva, L.S.V., da Silva, W.V., da Veiga, C.P. (2022), Absorptive capacity and innovation in SMEs: A systematic review. *Journal of Business Research*, 144, 135-150.
- Farida, I., Setiawan, D. (2022), Operational efficiency and sustainability: The missing link in SME competitiveness. *Sustainability*, 14(7), 4213.
- Fatoki, O. (2022), Determinants of the sustainable competitive advantage of small and medium-sized enterprises in South Africa. *Journal of Economics and Behavioral Studies*, 14(1), 15-26.
- Ferreira, J., Coelho, A., Moutinho, L. (2020), Dynamic capabilities, creativity and innovation capability and their impact on competitive advantage and firm performance. *European Journal of Innovation Management*, 23(3), 416-440.
- Freeman, J. (2023), Managerial competence, network relationships and SME performance in South Africa. *African Journal of Business Management*, 17(4), 134-148.
- Grant, R.M. (1996), Prospering in dynamically-competitive environments: Organisational capability as knowledge integration. *Organization Science*, 7(4), 375-387.
- Gupta, S. (2021), Digital transformation and dynamic capabilities in SMEs: A conceptual framework. *Journal of Strategic Information Systems*, 30(3), 101682.
- Hair, J.F., Hult, G.T.M., Ringle, C.M., Sarstedt, M. (2021), *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. 3rd ed. Thousand Oaks, CA: Sage Publications.
- Hatch, M.J., Schultz, M. (2003), Bringing the corporation into corporate branding. *European Journal of Marketing*, 37(7/8), 1041-1064.
- Hayes, R.H., Wheelwright, S.C. (1984), *Restoring Our Competitive Edge: Competing through Manufacturing*. New York: John Wiley & Sons.
- Heenkenda, H.M.C.K., Xu, F., Kulathunge, K.D.T. (2022), The nexus between brand image and competitive advantage: The mediating role of brand loyalty. *Journal of Brand Management*, 29(4), 367-383.
- Helmi, S., Setyadi, B. (2022), Knowledge management and competitive advantage in Ghanaian SMEs. *Journal of Knowledge Management Practice*, 23(2), 89-104.
- Herold, D.M., Malik, A., Heller, J. (2023), Strategic integration and organisational performance: A meta-analysis. *Long Range Planning*, 56(2), 102283.
- Hirano, H., Imai, M. (2020), *The Integration Imperative: Aligning Strategy, Processes and People for Competitive Advantage*. Tokyo: Kaizen Institute.
- Ijomah, T.I., Nwachukwu, C., Emecheta, B.C. (2024), Intellectual capital and competitiveness of Nigerian SMEs. *Journal of Intellectual*

- Capital, 25(1), 45-67.
- İncekara, A. (2022), Innovation capacity and firm performance: A comparative study of SMEs in emerging economies. *Journal of Innovation and Entrepreneurship*, 11(1), 23.
- Jamaludin, M. (2021), Brand stability and market share of SMEs in South Africa. *South African Journal of Economic and Management Sciences*, 24(1), 1-12.
- Junjie, W., Yingxin, L. (2022), Static resource perspectives versus dynamic capabilities: A critical review. *Strategic Management Review*, 18(3), 234-251.
- Kang, S.W. (2021), Innovation capability and strategic integration as drivers of firm performance. *Technology Analysis and Strategic Management*, 33(8), 912-926.
- Kato, M., Tsuda, K. (2018), Innovation capability and firm performance: Evidence from finnish SMEs. *International Journal of Innovation Management*, 22(4), 1850032.
- Kayongo, I., Mathiassen, L. (2020), Strategic integration and innovation diffusion in SMEs. *Journal of Small Business Strategy*, 30(2), 78-93.
- Keller, K.L. (2013) *Strategic Brand Management: Building, Measuring, and Managing Brand Equity*. 4th ed. Boston, MA: Pearson.
- Khoja, F., Jahanzeb, S., Fatima, T. (2022), Community-based brand value creation in township SMEs of South Africa. *Journal of Brand Strategy*, 11(2), 156-172.
- Khourouh, U., Sudiro, A., Rahayu, M. (2020), Brand reputation and institutional trust in emerging markets: The SME perspective. *Asia Pacific Journal of Marketing and Logistics*, 32(5), 1123-1142.
- Kline, R.B. (2023) *Principles and Practice of Structural Equation Modeling*. 5th ed. New York: Guilford Press.
- Le, T.T., Ikram, M. (2022), Social media branding and customer engagement in South African SMEs. *Journal of Digital Marketing*, 8(3), 201-218.
- Linde, L., Sjödin, D., Parida, V., Wincent, J. (2021), Dynamic capabilities for ecosystem orchestration: A case study of digital transformation. *Technological Forecasting and Social Change*, 166, 120617.
- Maziriri, E.T. (2023), Brand image as a strategic asset for SMEs in South Africa: An empirical investigation. *Journal of African Business*, 24(1), 78-96.
- McGahan, A.M. (2021), Dynamic capabilities and competitive advantage in the digital era. *Academy of Management Perspectives*, 35(2), 241-258.
- Neneh, B.N. (2021), Innovation capability and SME performance: The moderating role of environmental dynamism. *Journal of Small Business and Enterprise Development*, 28(6), 895-917.
- Porter, M.E. (1985), *Competitive Advantage: Creating and Sustaining Superior Performance*. New York: Free Press.
- Saunila, M. (2020), Innovation capability and firm performance: A review and future directions. *International Journal of Innovation Management*, 24(3), 2050028.
- Teece, D.J. (2007), Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319-1350.
- Teece, D.J., Pisano, G., Shuen, A. (1997), Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.
- Vu, H.T. (2020), Strategic integration and firm resilience: Evidence from emerging economies. *Journal of Business Research*, 118, 456-468.
- Wang, C.L., Ahmed, P.K. (2007), Dynamic capabilities: A review and research agenda. *International Journal of Management Reviews*, 9(1), 31-51.
- Womack, J.P., Jones, D.T. (1996), *Lean Thinking: Banish Waste and Create Wealth in Your Corporation*. New York: Simon & Schuster.
- Wong, W.P., Soh, K.L., Chong, C.L., Wong, K.Y. (2021), Operational efficiency and firm performance: The mediating role of lean production practices. *International Journal of Production Economics*, 235, 108095.