Dutse Business Review (DBR): Volume 1, Issue 1 (2026) ISSN Print: 3156-4062 eISSN:3156-4852

EFFECT OF CONCENTRIC DIVERSIFICATION STRATEGY ON THE PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN NORTHEAST, NIGERIA

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Abstract
The increasingly competitive and dynamic business environment has made it difficult for many small and medium enterprises (SMEs) in Northeast Nigeria to sustain growth, improve profitability and maintain market competitiveness. The main objective of this study is to examine the effect of concentric diversification strategies on SMEs performance in northeast Nigeria. The study adopted a survey research design and data were collected through the use of questionnaires. The study population was 5,449 registered SMEs in northeast Nigeria and the study used Yamane's (1967) sample size determination formula to arrive at sample size of 373. Data obtained were analyzed using Structural Equation Modelling via Smart-PLS. Findings from the study revealed that all the concentric diversification strategy (Technology leveraging, market extension, and brand extension) used in this study have positive and significant impacts on SMEs performance in northeast Nigeria. The study concludes that concentric diversification strategy has significant effect on SMEs performance in northeast Nigeria and therefore recommends among others that SMEs managers should prioritize technology leveraging, market extension, and brand extension strategies to improve performance. Specifically, SME managers should invest in digital technologies, develop digital literacy skills, and expand their market reach both domestically and internationally. Additionally, SME managers should develop a strong brand identity and invest in brand building activities to increase brand awareness and loyalty.

Keywords: Concentric Diversification, Technology Leveraging, Market Extension, Brand Extension, Small and Medium Enterprises, Performance.

1.0 INTRODUCTION

Small and Medium Enterprises (SMEs) performance has remained a subject of considerable interest among scholars, policymakers and development practitioners due to the significant role SMEs play in economic development, employment generation, poverty reduction and industrial growth. When SMEs perform well, they can generate significant and sustainable profits, create

jobs, and boost individual incomes. Additionally, an optimal performing business can lead to improved employee compensation, increased production, and higher quality products for customers. The Nigerian SMEs has been identified as one of the major driver and engine room of the Nigerian economy. According to the National Bureau of Statistics, 2023 and PwC MSMEs survey report (2020), SMEs contribute 48.5% to Nigeria's Gross Domestic Product (GDP) and employ over 84% of the country workforce. The recognition of these vital roles in the Nigeria economy growth and development necessitated the Nigeria's 2021-2025 development plan which projected that Nigerian SMEs will retain a 48% share of Gross Domestic Product (GDP) and generate about 21 million new jobs.

However, the African Development Bank (AfDB) (2024) reports revealed that the Nigerian SMEs performance is stagnant. The reports explained that the Nigerian SMEs median sales grew was 2.3% in 2023, and 25% of the businesses were contracting. The sector was reported to be in need of about 31 billion (₦47 333 280 000 000) fund to facilitate expansion. Further studies such as Bala (2022); Opara (2023); Onuh, et al., (2024); Adesua-Lincoln (2025), reveals limited access to finance, inadequate infrastructure, poor electricity power supply, strict government regulatory, competitiveness, and technological constraints are some of the challenges limiting the performance of Nigerian SMEs.

Concentric diversification strategy has been identified as an effective strategic management approach for addressing the challenges faced by SMEs, particularly in Northeast Nigeria, where economic underdevelopment, inadequate infrastructure and security concerns constrain business growth (Stephen, 2024; Hardy, 2024; Chekwube, 2024). The strategy involves expanding into related products or markets by leveraging existing capabilities, technologies and customer bases, thereby enabling firms to achieve synergy and growth with lower risk and cost. In this study, concentric diversification is operationalized through technology leveraging, market extension, and brand extension strategies, which allow SMEs to utilize internal resources and market knowledge efficiently. Empirical evidence suggests that related diversification enhances business resilience and performance, as demonstrated by the findings of Oluwatosin-Otokiti et al. (2022) and Tijjani et al. (2024), who reported positive effects of concentric diversification on the performance of SMEs and MSMEs in Nigeria.

Small and medium enterprises (SMEs) accounts for 96% of the national enterprise population, 84% of employment and about 48% of nominal Goss Domestic Products (Moniepoint, 2025).

Despite this contribution, many SMEs experience poor performance, with about half failing within their first year and only 5% surviving beyond five years (Moniepoint, 2025). To address this, concentric diversification strategy, which involves expanding into related products or markets using existing capabilities, has been identified as a viable approach for improving firm survival and performance (Mwariri et al., 2025). Previous studies indicate that firms adopting this strategy often achieve higher sales growth and greater cost efficiency than those that do not diversify (Oluwatosin-Otokiti et al., 2022; Tijjani et al., 2024). However, since these studies were conducted in different contexts, their findings may not necessarily apply to the present study. In view of the above, the study is conducted to;

i. examine the effect technology leveraging strategy on small and medium enterprises performance in northeast Nigeria.
ii. assess the effect of market extension strategy on SMEs Performance in northeast Nigeria.
iii. examine the effect of brand extension strategy on SMEs Performance in northeast Nigeria.

2.0 LITERTURE REVIEW

2.1 SMEs Performance

Small and Medium Enterprises performance refers to the extent to which a business achieves its predetermined objectives and desired outcomes over a specific period. Performance is generally assessed by evaluating how effectively an enterprise utilizes its resources to attain operational, financial and strategic goals. Cho and Lee (2018) viewed SMEs performance as the extent to which small and medium-sized enterprises attain desired business outcomes through improved profitability, sales growth, market expansion, customer satisfaction and innovation. Their definition recognizes the unique characteristics of SMEs and the importance of both financial and strategic indicators in evaluating business success.

Santos and Brito (2012), Taouab and Issor (2019), Richard et al. (2009), and Akinwale and Mutongoza (2025) view SME performance as a multidimensional concept that extends beyond financial outcomes. They emphasize that performance encompasses profitability, market success, operational efficiency, customer satisfaction, innovation, competitiveness and long-term sustainability. These scholars argue that SME performance should be assessed using both financial

and non-financial indicators, reflecting the ability of firms to achieve strategic objectives, utilize resources effectively and sustain growth over time.

2.2 Concentric Diversification Strategy

Concentric diversification strategy involves a firm's expansion into related business areas that share similar resources, capabilities and value-chain activities, enabling the firm to create strategic synergies and leverage its core competencies for improved performance (Ansoff, 1957; Pearce & Robinson, 2020). The strategy allows organizations to exploit existing technological expertise, market knowledge and brand strengths in related businesses to achieve growth and competitive advantage (Le & Nguyen, 2024; Kalama et al., 2024). According to Yator et al. (2024), concentric diversification is an important growth strategy that enhances a firm's appeal to customers and market position. In this study, concentric diversification strategy is operationalized through technology leveraging strategy, market extension strategy and brand extension strategy.

Technology Leveraging Strategy

Technology leveraging refers to the strategic use of a firm's existing technological assets, knowledge and capabilities to develop new products and business opportunities while minimizing innovation costs (Larabi, 2025; Wilfred, 2014). Within the context of concentric diversification, it involves redeploying existing technologies, equipment and R&D outputs to achieve economies of scope and competitive advantage. The concept has been variously described as technology-based diversification, technological related diversification and digital expansion along the technological trajectory (Kim, 2017; Kang et al., 2020; Changalima et al., 2025). By utilizing existing technological resources, firms can reduce development costs, accelerate innovation processes and improve overall performance (Wang et al., 2024; Lin & Maruping, 2025).

Market Extension Strategy

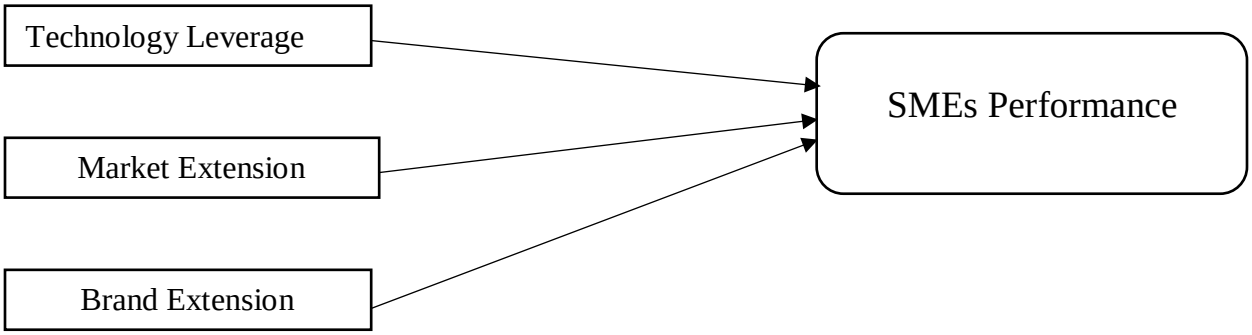
Market extension strategy refers to the expansion of existing or slightly modified products into new geographic, demographic or distribution channels that are closely related to a firm's current markets (Zugay & Zakaria, 2023). The strategy enables firms to leverage existing managerial capabilities, sales networks, warehousing facilities and customer-service infrastructure to enter new markets at lower costs (Lin et al., 2021; Penrose, 2024; Rakesh et al., 2022). Unlike unrelated diversification, market extension builds on existing organizational resources and capabilities to enhance competitiveness and market reach. Firms often pursue this strategy through acquisitions,

greenfield investments, and joint ventures to strengthen their position relative to competitors (Rakesh et al., 2022).

Brand Extension Strategy

Brand extension refers to the use of an established brand name to introduce new products in related product categories, allowing firms to transfer existing brand equity and reputation to new offerings (Peng et al., 2023). For a concentric brand extension to succeed, there must be a strong fit between the parent brand and the new product in terms of product attributes and brand image (Cutolo & Ferriani, 2024; Burmann et al., 2025). Grounded in signaling theory, brand extension reduces consumer uncertainty and promotional costs by using the parent brand as a credible indicator of quality (Strano, 2023; Peng et al., 2023). However, firms must maintain a balance between familiarity and innovation, as excessive similarity may lead to product cannibalization, while weak fit can dilute brand identity (Hoang, 2025; Motadel et al., 2025; Ozer et al., 2025). Consequently, effective brand extension can enhance customer adoption, pricing power, and overall business performance.

Figure 1: *Conceptual Model*



Source**:** Researcher's Compilation (2026).

In view of the aforementioned, technology leveraging, market extension and brand extension are thus conceptually distinct yet mutually reinforcing facets of concentric diversification. Each proxy concentric diversification strategy exploits specific locus on the strategic synergy such as: production knowledge, distribution scope and consumer goodwill while remaining bounded by the firm's extant value-chain architecture. Their simultaneous deployment offers SMEs the prospect of compound economies of scope that can translate into superior financial performance without the resource demands of unrelated diversification. Figure 1 presents the conceptual model.

2.3 Empirical Review

Changalima et al.'s (2025) study examined the relationship between technological absorptive capacity and the business performance of small and medium enterprises, as well as the mediating effect of e-business innovation using data from 179 sunflower oil-processing SMEs in Tanzania and analyzed the data using partial least square modeling. Findings from the study suggest that technological absorptive capacity (such as: leveraging existing R&D and IT) explain 34% of the variance in SMEs performance. The studies under review were conducted outside the scope of this study using Structural Equation Modeling, as such, their findings cannot be generalized.

Kang et al. (2020) examined the relationship between technological knowledge diversification and firm growth among Korean manufacturing SMEs. The study found that technological knowledge diversification enhances existing market segments and supports the development of new products for new markets. The authors recommended that firms should accumulate specialized knowledge and apply it across diverse market segments to improve growth. However, the study's focus on Korean manufacturing SMEs limits the generalizability of its findings to other contexts, creating a geographical gap that the present study seeks to address by examining SMEs in Northeast Nigeria.

Akhgari et al. (2025) investigated the effect of market-extension diversification on the performance of 377 Iranian food-processing SMEs using PLS-SEM. The study found that expanding into additional export markets significantly improved firm performance, increasing return on assets and sales growth. However, the study is limited by its use of PLS-SEM, which does not adequately capture curvilinear or interaction effects that multiple regression analysis can assess. Additionally, the findings may not be directly applicable to Northeast Nigeria due to differences in infrastructure, institutional support, and access to export markets, highlighting the need for further research in the Nigerian context.

Complementing the above, Fredrick et al. (2022) regressed geographic expansion intensity, using number of new Nigerian states entered on profit margin for 256 Agro-Processing SMEs located in the south-west geopolitical zone. The panel OLS estimates (2017-2021) indicated that each additional state contributed 0.15% to profit margin ($p < 0.05$). Although the study was conducted within Nigeria, but the study embodies a geographical gap because the south-west enjoys seaports,

relatively stable electricity, and relatively good road networks, which northeast Nigerian SMEs may lack

Sezen et al. (2024) quantified the performance impact of feature-similarity-driven line extensions across 847 CPG stock-keeping-units and treat each high-fit launch as a concentric diversification strategy. Using hierarchical Bayesian modelling on store-level scanner data, the study findings revealed that low feature similarity yields 3.2% increment in the brand sales, whereas overlap exceeding 70% erodes 5.8% of sales and sub-brand architectures deepen the loss to 8.4% ($p < 0.01$). While these estimates are precise, a knowledge gap remains: the study reports scanner-based revenue elasticities rather than firm-level profitability, leaving the impact on SME return on assets unspecified. Methodologically, the study relies on secondary data; consequently, the 3.2% uplift is yet to be tested with multiple regression analysis based on primary financial indicators, which is the exact estimator adopted in the present northeast Nigerian SMEs inquiry. Geographically, the findings are embedded in the data-rich U.S. planogram shelves; northeast Nigeria States fragmented open-air markets may reduce similarity cues, thereby flattening both internal competition and marginal benefits.

Hesse et al. (2022) examined how consumers evaluate green brand extensions using content analysis, focus groups, and interviews in Germany's FMCG sector. The study found that credible third-party eco-labels positively influence consumer perceptions and brand loyalty, while self-issued labels can have negative effects. The findings suggest that both brand-extension fit and credibility are important determinants of attitudinal performance. However, the study is limited by its qualitative approach, as it does not quantify the impact of green brand extensions on performance indicators such as sales, market share, or profitability. Furthermore, its findings are based on the German market and may not be directly applicable to contexts such as Northeast Nigeria, where consumer awareness of eco-certification may be lower.

2.4 Theoretical Framework

The Resource-Based Theory (RBT): Drawing on the resource-based perspective (Wernerfelt, 1984; Barney, 1991), this study argues that concentric diversification is essentially a resource-redeployment strategy: SMEs recombine existing, idiosyncratic assets (production technology, market networks, brand equity), rather than acquiring new ones. Technology leveraging enables firms to stretch proprietary know-how across adjacent products; market extension exploits established distribution and customer data; brand extension transfers reputation capital to related

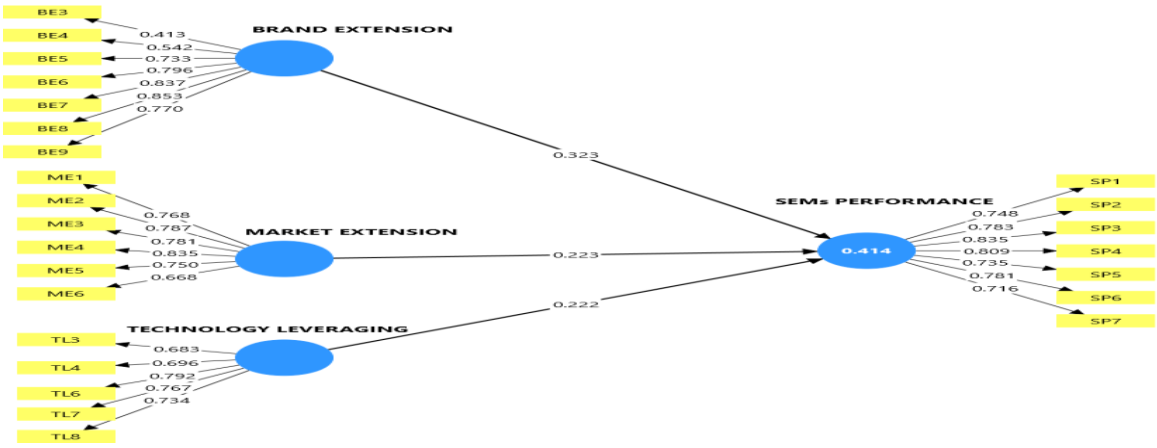
offerings. Because these assets are rare, difficult to imitate and imperfectly mobile, their recombination generates heterogeneity that translates into superior performance (Haseeb et al., 2019; Hossain et al., 2019). Thus, SMEs that systematically combine and reconfigure internal resources through technology, market and brand extensions are posited to achieve both short-run efficiency gains and long-run competitive advantage over rivals that remain resource-static (Okegbemiro & Adim, 2023).

3.0 METHODOLOGY

This study used a descriptive survey design, focusing on Small and Medium Enterprises (SMEs) in the northeast Nigerian. The population of the study is 5,449 registered SMEs within the region (SMEDAN, 2020). Sample of 373 respondents were determined using Yamane's (1967). A structured questionnaire with a 5-point Likert scale was used, adapting items from existing literature; items on brand extension were adapted from Bosinakis and Johansson (2009), items on performance were adapted from Wang (2007), and items on market extension were adapted from Daisy (2023), while items on technology leveraging were developed by the study.

4.0 RESULTS AND DISCUSSION

Figure 1: *Structural Model Showing the Factor Loadings and Paths Relationships between Constructs.*



Composite reliability, AVE, and Cronbach's alpha of the three constructs namely, Brand Extension, Market Extension and Technology Leveraging were below thresholds of *0.70, 0.50, 0.70* suggested by Hair et al. (2017), this prompt the deletion of items with low outer loadings as advised by Hair et al. (2017). Specifically, items BE1, BE2, ME7, ME8, TL1, TL2 and TL5 were

deleted as shown in Figure 1. This deletion process is aimed at improving the model fit by eliminating items that contributes poorly to study's construct validity (Hair et al., 2017).

Table 1: *Constructs Reliability and Validity*

Constructs	Items	Loadings	AVE	CR	CA	VIF	R^2
SMEs Performance	SP1	0.748	0.598	0.891	0.887	-	0.414
	SP2	0.783					
	SP3	0.835					
	SP4	0.809					
	SP5	0.735					
	SP6	0.781					
	SP7	0.716					
Brand Extension	BE1	Deleted	0.522	0.874	0.838	1.667	-
	BE2	Deleted					
	BE3	0.413					
	BE4	0.542					
	BE5	0.733					
	BE6	0.796					
	BE7	0.837					
	BE8	0.853					
	BE9	0.770					
Market Extension	ME1	0.768	0.588	0.865	0.859	1.660	-
	ME2	0.787					
	ME3	0.781					
	ME4	0.835					
	ME5	0.750					
	ME6	0.668					
	ME7	Deleted					
	ME8	Deleted					
Technology Leveraging	TL1	Deleted	0.541	0.790	0.787	1.529	
	TL2	Deleted					
	TL3	0.683					
	TL4	0.696					
	TL5	Deleted					
	TL6	0.792					
	TL7	0.767					
	TL8	0.734					

Source: Field Survey, (2026)

After the deletion of the said items, the refined measurement model shows satisfactory Composite Reliability (CR) values of 0.874, 0.865, 0.790 and 0.891 for Brand Extension, Market Extension, Technology Leveraging and SMEs Performance respectively; Average Variance Extracted (AVE) values of 0.522, 0.588, 0.541 and 0.598 were gotten for Brand Extension, Market Extension, Technology Leveraging and SMEs Performance; and Cronbach's Alpha (CA) values of 0.838, 0.859, 0.787 and 0.887 for Brand Extension, Market Extension, Technology Leveraging and SMEs Performance respectively, indicating adequate reliability (Hair et al., 2017). Convergent validity was supported by AVE values exceeding 0.50 for all constructs (Hair et al., 2014) while the variance inflation factor (VIF) values for inner model constructs were below 5, suggesting absence of severe multicollinearity (Hair et al., 2017) as shown in Table 1 above.

Table 2: *Heterotrait-Monotrait (HTMT) Ratio Criterion*

Construct	BE	ME	SP	TL
BE				
ME	0.657			
SP	0.644	0.593		
TL	0.622	0.636	0.601	

Furthermore, discriminant validity was established as indicated by Heterotrait-Monotrait (HTMT) ratios being below 0.90 (Hair et al., 2017) as presented in Table 2 above.

Table 3: *Effect Size*

Construct	f^2
Brand Extension – SMEs Performance	0.107
Market Extension – SMEs Performance	0.051
Technology Leveraging – SMEs Performance	0.055

The effect sizes (f^2) values of 0.107, 0.051 and 0.055 respectively indicated Brand Extension *(f^2 = 0.107)* has a small effect on SMEs performance in northeast Nigeria, Market Extension *(f^2 = 0.051)* has no effect size on SMEs performance in northeast Nigeria and Technology Leveraging (f^2 *0.055*) has no effect size on SMEs performance in northeast Nigeria (Cohen., 1988) as shown in Table 3.

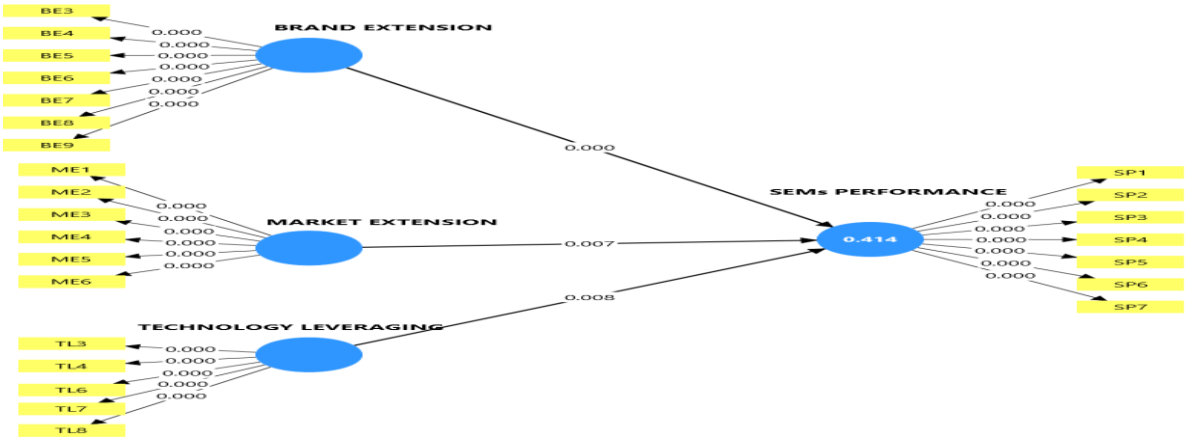
Table 4: *Path Coefficient (Hypotheses Test Results)*

Hypotheses	**Beta**	**S. mean (M)**	**(STDEV)**	**T Value**	**P values**	**Decision**
H_{A1}: TL -> SP	0.222	0.222	0.084	2.660	0.008	Accepted
H_{A2}: BE -> SP	0.323	0.326	0.084	3.847	0.000	Accepted
$H_{A3:}$ ME -> SP	0.223	0.230	0.082	2.720	0.007	Accepted

*** p< 0.01; **p< 0.05; *p <0.1

In addition to this, results indicated significant paths from Technology Leveraging (β = 0.222; t = 2.660, t >1.96; p =0.008, p <0.05), Brand Extension (β = 0.323; t = 3.847, t>1.96; p =0.000, p <0.05) to SME performance, and Market Extension (β = 0.223; t = 2.720, t >1.96; p =0.007, p <0.05) supporting Hypotheses 1, 2 and 3, as shown in Figure 2 (Bootstrapping Results Diagram) and summarized in Table 4. Predictive relevance was supported by positive Q^2 values (0.375; Q^2 > 0) obtained via PLS-Predict procedures, suggesting the model's ability to predict endogenous constructs (Hair et al., 2017). The conceptual relationships are illustrated in Figure 2. In view of the above, these findings collectively show the effect of TL, BE, and ME concentric diversification dimensions in enhancing SMEs performance in northeast Nigeria.

Figure 2: *Bootstrapping Results Diagram Showing Hypotheses Results.*



4.1 Discussion of Findings

The present study investigated on the effect of concentric diversification strategy on SMEs' performance in northeast Nigeria. The SEM analysis revealed that technology leveraging strategy (TL), market extension strategy (ME), and brand extension strategy (BE) collectively explain approximately 41.4% of the variance in SMEs' performance, showing the significance of these strategies in driving SMEs performance. The finding of this study is consistent with the findings of Kang et al. (2020), which highlighted the role of technological knowledge diversification in improving market segments and product development, this study confirms that TL (*β = 0.222, p = 0.008*) is a crucial driver of SMEs' performance in northeast Nigeria. This suggests that SMEs can leverage technology to enhance their competitiveness and performance.

Similarly, the positive association between ME and SMEs' performance ($\beta = 0.223$, $p < 0.007$) aligns with Akhgari et al.'s (2025) study, which demonstrated the revenue effects of geographic expansion. This finding implies that SMEs in northeast Nigeria can benefit from expanding their market reach, both domestically and internationally. The significant coefficient for BE ($\beta = 0.323$, $p = 0.000$) is consistent with Sezen et al.'s (2024) study, which found that brand extension strategies can enhance firm performance. This suggests that SMEs in northeast Nigeria can leverage their brand equity to drive growth and performance.

The findings of this study are consistent with the resource-based view (RBV) of the firm, which posits that firms can leverage their resources and capabilities to achieve competitive advantage (Wernerfelt, 1984). The results suggest that SMEs in northeast Nigeria can enhance their performance by adopting concentric diversification strategies, such as leveraging technology, extending markets, and branding. However, the modest effect sizes of the predictors suggest that other factors, such as internal resources and capabilities, may also play a significant role in determining SME performance (Eze & Nwachukwu, 2020). This highlights the complexity of the relationship between concentric diversification strategy and SMEs' performance, and the need for further research to explore other influencing factors.

5.0 CONCLUSION AND RECOMMENDATIONS

This study investigated the relationship between concentric diversification strategy and SMEs' performance in northeast Nigeria. The findings suggest that technology leveraging strategy, market extension strategy, and brand extension strategy are significant predictors of SMEs' performance, collectively explaining approximately 41.4% of the variance in performance outcomes. The study's results support the resource-based view (RBV) of the firm, which highlight the importance of leveraging internal resources and capabilities to achieve competitive advantage. The findings also show the complexity of the relationship between concentric diversification strategy and SMEs' performance, and suggests that other factors, such as internal resources and capabilities, may also play a significant role in determining SME performance. Based on the findings of the study, the following recommendations are made;

i. SMEs in northeast Nigeria should focus on investing in digital technologies, such as e-commerce, social media, and data analytics, to boost their online presence and customer engagement.

ii. Furthermore, SMEs should seek new domestic and international markets by conducting market research, understanding customer preferences, and forming local partnerships.

iii. Building a strong brand identity is crucial, requiring brand audits and proactive reputation management.

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