

The Role of Non-Accounting Information in Explaining Success and Failure among Small Businesses: Evidence from Registered Small and Medium Scale Enterprises in Kaduna Municipal, Nigeria

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DOI: <https://doi.org/10.5281/zenodo.19681814>

Article History	Abstract
Original Research Article	
Received: 01-03-2026	<i>This study examines the role of non-accounting information in explaining success and failure among registered Small and Medium Scale Enterprises (SMEs) in Kaduna Municipal, Nigeria.</i>
Accepted: 07-04-2026	<i>While SME performance assessment has traditionally relied on accounting-based indicators such as profitability and turnover, growing theoretical and empirical evidence suggests that intangible and strategic factors provide stronger explanations of enterprise sustainability.</i>
Published: 21-04-2026	<i>Adopting a mixed-methods design, the study combined quantitative survey data from 175 SME owners/managers with qualitative interviews to provide contextual depth. Binary logistic regression analysis was employed to model the probability of business success—measured as sustained growth over a 24-month period—while controlling for firm age, firm size, and accounting performance indicators.</i>
<p>Copyright © 2026 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.</p>	
<p>Citation: Haruna Ismaila Maikujeri, & Esther Dupe Mathew. (2026). The role of non-accounting information in explaining success and failure among small businesses: Evidence from registered small and medium scale enterprises in Kaduna Municipal, Nigeria. <i>UKR Journal of Economics, Business and Management (UKRJEBM)</i>, 2(4), 175-185.</p>	<p><i>The results reveal that non-accounting variables significantly predict SME success beyond financial metrics. Specifically, entrepreneurial orientation ($\beta = 1.42, p < 0.01$), managerial competence ($\beta = 1.08, p < 0.05$), market intelligence capability ($\beta = 0.95, p < 0.05$), and customer relationship strength ($\beta = 1.21, p < 0.01$) emerged as strong positive determinants of sustained growth. Descriptive findings further show that 62% of surveyed SMEs reported growth, while 38% experienced stagnation or decline, highlighting measurable variation in enterprise outcomes within the municipal context. The findings support multidimensional performance frameworks grounded in the Resource-Based View and dynamic capability perspectives, demonstrating that intangible strategic capabilities are critical drivers of SME resilience in sub-national developing economy environments.</i></p>
	<p><i>The study contributes to SME literature by providing localized empirical evidence from Kaduna Municipal and by validating the explanatory power of non-accounting information in performance evaluation models. Policy implications emphasize the need for SME development programs to incorporate managerial training, entrepreneurial development, market intelligence systems, and customer relationship management capacity building into enterprise support initiatives.</i></p>
	<p>Keywords: Non-Accounting Information; SME Performance; Entrepreneurial Orientation; Managerial Competence; Market Intelligence.</p>

1. Introduction

Small and Medium Scale Enterprises (SMEs) are widely recognized as critical drivers of economic development, employment generation, innovation, and structural transformation across the globe. The World Bank (2023) estimates that SMEs represent approximately 90% of

businesses worldwide and account for more than half of global employment. In both advanced and emerging economies, SMEs stimulate competition, foster entrepreneurial dynamism, and contribute to inclusive growth. The Organisation for Economic Co-operation and

Development (OECD, 2022) further emphasizes that resilient SME sectors are essential for regional development and economic diversification, particularly in environments characterized by rapid technological change and market volatility.

Despite their acknowledged importance, SMEs face disproportionately high failure rates. Globally, many small businesses struggle to survive beyond their early years of operation, with structural vulnerabilities heightened in developing economies (International Labour Organization [ILO], 2022). These vulnerabilities are often associated with limited access to finance, infrastructural constraints, regulatory burdens, weak institutional support systems, and managerial capacity gaps. While financial constraints are frequently cited as primary causes of SME failure, emerging scholarship suggests that non-financial and strategic factors play equally critical roles in shaping enterprise outcomes (Wiklund & Shepherd, 2005; Brinckmann, Grichnik, & Kapsa, 2010). This evolving perspective challenges traditional approaches that rely predominantly on accounting-based indicators to assess business performance.

Historically, SME performance assessment has been grounded in accounting information such as profit margins, return on assets, liquidity ratios, and turnover growth. These measures provide quantifiable and standardized benchmarks for evaluating financial health. However, accounting metrics are inherently retrospective; they capture outcomes rather than the underlying processes and strategic behaviors that generate those outcomes. Kaplan and Norton (1996), in their Balanced Scorecard framework, argue that exclusive reliance on financial indicators offers an incomplete view of organizational performance, particularly in dynamic environments where intangible assets—such as knowledge, relationships, and innovation capacity—are key value drivers. In this context, non-accounting information emerges as a vital complement to financial data in explaining enterprise sustainability.

Non-accounting information encompasses qualitative and strategic dimensions of business operations, including managerial competence, entrepreneurial orientation, market intelligence capabilities, human capital quality, innovation practices, and customer relationship strength. Entrepreneurial orientation—characterized by innovativeness, proactiveness, and risk-taking—has been empirically linked to firm growth and competitive advantage (Wiklund & Shepherd, 2005). Similarly, managerial competence and strategic planning capabilities significantly influence resource allocation efficiency and adaptive responses to environmental uncertainty (Brinckmann et al., 2010). Market intelligence and customer relationship management practices enhance

responsiveness to consumer preferences and competitive pressures, thereby strengthening firm resilience. These dimensions are particularly salient for SMEs operating in volatile and resource-constrained settings.

In developing economies such as Nigeria, the limitations of purely financial performance assessments are especially pronounced. Nigeria's SME sector accounts for over 96% of registered businesses and contributes significantly to employment and GDP (Small and Medium Enterprises Development Agency of Nigeria [SMEDAN], 2021). Nonetheless, SME mortality rates remain high, with many enterprises failing within the first five years of establishment (Central Bank of Nigeria [CBN], 2022). Existing research within the Nigerian context has predominantly focused on access to credit, macroeconomic instability, infrastructural deficits, and regulatory challenges as determinants of SME performance (Beck & Demirgüç-Kunt, 2006). While these structural factors are undeniably important, relatively limited empirical attention has been devoted to examining how non-accounting information explains variations in SME success and failure, particularly at sub-national levels.

Nigeria's economic landscape is highly heterogeneous, with business environments varying significantly across states and municipalities. Consequently, national-level analyses may obscure localized dynamics that shape enterprise outcomes. Kaduna Municipal, located in North-Western Nigeria, represents a strategically important commercial and administrative hub. The municipality hosts a diverse population of registered SMEs engaged in manufacturing, retail trade, agro-processing, and service provision. These enterprises operate within a socio-economic environment characterized by infrastructural challenges, fluctuating consumer purchasing power, evolving market competition, and security-related concerns. In such contexts, survival may depend less on formal accounting sophistication and more on adaptive capabilities, managerial judgment, entrepreneurial initiative, and relational networks.

Despite Kaduna Municipal's economic significance within the region, there is limited empirical evidence examining the role of non-accounting information in shaping SME outcomes within this specific locality. This absence of localized analysis creates both theoretical and policy gaps. From a theoretical standpoint, it constrains the contextualization of SME performance frameworks within emerging economy settings. From a policy perspective, it risks encouraging support interventions that prioritize financial assistance without adequately addressing managerial capacity, strategic orientation, and market intelligence development. Business development programs, entrepreneurship training initiatives, and credit schemes

may achieve limited impact if the non-financial determinants of performance are insufficiently understood.

In response to these gaps, this study investigates the extent to which non-accounting information explains success and failure among registered SMEs in Kaduna Municipal, Nigeria. Specifically, it examines whether managerial competence, entrepreneurial orientation, market intelligence capabilities, and customer relationship management practices significantly influence enterprise performance outcomes. Furthermore, the study evaluates whether these non-financial dimensions provide stronger explanatory power than traditional accounting indicators in predicting SME sustainability within the municipal context.

The central objective of the study is therefore to assess the role of non-accounting information in determining SME success and failure among registered enterprises in Kaduna Municipal. To achieve this aim, the research systematically evaluates the influence of managerial competence, entrepreneurial orientation, market intelligence practices, and customer relationship strength on business performance outcomes. Additionally, it compares the predictive relevance of non-accounting information with conventional accounting-based measures, thereby offering a more comprehensive understanding of SME sustainability dynamics. By generating context-specific empirical evidence, the study aims to inform policymakers, enterprise development agencies, financial institutions, and entrepreneurship support programs operating within Kaduna State.

This research contributes to the broader literature in three key ways. First, it extends SME performance analysis beyond traditional financial metrics, reinforcing the importance of strategic and behavioral determinants in emerging economies. Second, it provides sub-national empirical evidence from Kaduna Municipal, thereby responding to calls for more context-sensitive entrepreneurship research (Welter, 2011). Third, it offers practical insights for designing balanced support interventions that integrate financial assistance with managerial and strategic capacity-building initiatives.

In sum, while SMEs remain central to economic transformation and inclusive development, understanding the drivers of their success and failure requires moving beyond purely accounting-based evaluations. By examining the explanatory role of non-accounting information within a localized Nigerian context, this study seeks to advance theoretical refinement, empirical rigor, and policy relevance in the analysis of SME performance.

2. Literature Review

2.1 Conceptualizing SME Performance: Beyond Accounting Metrics

Small and Medium Scale Enterprises (SMEs) have traditionally been assessed using accounting-based performance indicators such as profitability ratios, liquidity, return on assets, and turnover growth. Such measures have long dominated both academic and managerial evaluation frameworks (Feng, 2017). Accounting information provides quantifiable snapshots of financial health, facilitating comparative analysis over time and across firms (Richard, Devinney, Yip, & Johnson, 2009). However, contemporary management research acknowledges important limitations of accounting metrics. These measures are inherently retrospective; they reflect past performance rather than forward-looking capability (Kaplan & Norton, 1996). In volatile environments characterized by rapid technological change, global competition, and frequent market disruptions, traditional financial ratios are often incapable of capturing the systemic and strategic conditions that determine future sustainability (Aguinis & Pierce, 2008).

Brinckmann, Grichnik, and Kapsa (2010) argue that accounting metrics are insufficient on their own because they fail to incorporate intangible assets—such as knowledge, entrepreneurial mindset, and relational capital—that increasingly determine firm performance. These limitations are particularly salient for SMEs. Unlike large firms with formal governance structures and sophisticated financial systems, SMEs often operate informally, relying on tacit knowledge, owner-manager judgment, and relational networks to navigate market uncertainty (Burns, 2016). Thus, there is an increasing consensus that performance assessment must be broadened to include non-accounting information that reflects strategic behavior, managerial quality, and organizational adaptability (Venkatraman & Ramanujam, 1986).

2.2 Non-Accounting Information in Performance Explanation

The concept of non-accounting information encompasses a range of qualitative and context-specific variables that influence strategic decision making and competitive advantage. Key dimensions include managerial competence, entrepreneurial orientation, market intelligence, customer relationship strength, and human capital quality (Wiklund & Shepherd, 2005; Rauch, Wiklund, Lumpkin, & Frese, 2009).

2.2.1 Managerial Competence

Managerial competence refers to the skills, experience, and decision-making capacity of an enterprise's leadership.

Previous studies show that managers' cognitive ability, industry experience, and strategic insight significantly influence firm performance outcomes (Baron & Tang, 2009; Carter, Gartner, Shaver, & Allen, 1996). In SMEs, where the owner often doubles as the manager, this effect is intensified. Research indicates that poorly developed managerial skills are correlated with higher failure rates, while competence in planning, operational coordination, and risk management enhances sustainability (Collins, Hitt, & Smith, 2009). Moreover, managerial competence enables better anticipation of environmental changes and effective resource allocation, thereby increasing resilience (Hitt, Xu, & Carnes, 2016).

2.2.2 Entrepreneurial Orientation

Entrepreneurial orientation (EO) refers to a set of strategic postures—innovativeness, proactiveness, and risk-taking—that shape a firm's approach to market opportunities (Lumpkin & Dess, 1996). EO has been widely documented as a key predictor of performance across contexts. Firms that innovate, explore new markets, and take calculated risks tend to outperform their peers (Wiklund & Shepherd, 2005). Rauch et al. (2009) found that EO had a positive correlation with sales growth, profitability, and survival rates in SMEs. Importantly, in unstable environments typical of developing economies, proactiveness enables firms to pivot strategically when confronted with shocks, regulatory changes, or competitive pressures (Covin & Wales, 2012).

2.2.3 Market Intelligence

Market intelligence involves the systematic collection and use of information about customer preferences, competitor strategies, and broader industry trends (Kohli & Jaworski, 1990). Research shows that firms that institutionalize intelligence practices are better positioned to tailor products, respond to shifting demand patterns, and capitalize on emerging opportunities. Market intelligence enhances strategic decision making and reduces uncertainty, particularly in SMEs that lack formal planning departments (Day, 2011). A study by Zou, Fang, and Zhao (2003) concluded that market intelligence capability significantly predicts market performance and long-term survival, especially in dynamic and uncertain markets.

2.2.4 Customer Relationship Management (CRM)

Customer relationship strength refers to the quality and depth of firm-customer interactions. Effective CRM practices—including customer feedback integration, loyalty programs, and personalized engagement—help SMEs build trust and long-term patronage (Payne & Frow, 2005). Empirical research demonstrates that firms with stronger customer relationships enjoy higher retention, reduced churn, and improved word-of-mouth reputation,

which are crucial for sustainable revenue (Nguyen & Mutum, 2012). For SMEs with limited advertising budgets, CRM becomes a strategic asset that leverages relational capital to maintain competitive positioning (Trainor et al., 2011).

2.3 Accounting vs Non-Accounting Information: A Comparative Perspective

There is growing evidence that non-accounting information often yields superior explanatory power for long-term survival than accounting variables alone. In their meta-analysis, Brinckmann et al. (2010) found that entrepreneurial and managerial factors accounted for significant variance in performance outcomes across SMEs in different economic contexts. Wiklund and Shepherd (2005) also showed that entrepreneurial orientation moderated the relationship between financial performance and growth, suggesting that non-financial variables can amplify or attenuate financial outcomes.

Richard et al. (2009) recommend a multidimensional approach—combining financial and non-financial indicators—to achieve a comprehensive understanding of performance. In developed economies, balanced scorecard frameworks have operationalized this integration by including customer, internal process, learning, and growth perspectives alongside financial measures (Kaplan & Norton, 1996). However, in developing economies with limited data infrastructure, the non-accounting dimensions often provide more accessible and immediately actionable insight than accounting records, which may be incomplete or unreliable (Beck & Demirgüç-Kunt, 2006).

2.4 The Dynamics of SME Performance in Nigeria

In Nigeria, SMEs constitute the majority of registered enterprises and are recognized for their contribution to employment and GDP (SMEDAN, 2021). Despite favorable policy rhetoric, Nigerian SMEs face persistent challenges including limited credit access, poor infrastructure, regulatory complexity, market fragmentation, and inconsistent institutional support (CBN, 2022; Adegbite, 2012). Most studies conducted within Nigeria focus on financial constraints and structural barriers as primary determinants of SME success and failure (Inegbedion, Enofe, & Ukpere, 2012). However, fewer studies have empirically examined non-accounting predictors within the Nigerian context. Where they exist, findings suggest that managerial ability, entrepreneurial mindset, and market responsiveness significantly influence SME performance (Lawal, 2019; Ogbari et al., 2020), but comprehensive localized evidence remains sparse.

At the sub-national level, business environments differ significantly across Nigerian states and municipalities due to variations in infrastructure, security, consumer behavior,

and institutional efficacy. Kaduna Municipal, a major commercial hub in North-Western Nigeria, exemplifies such contextual complexity. SMEs in the municipality operate within an environment marked by security volatility, informal market practices, and competitive pressures, making adaptive and strategic non-financial capabilities crucial for survival. However, few empirical studies have investigated how these non-accounting factors influence enterprise outcomes in Kaduna Municipal specifically. This gap underscores the need for localized research to inform policy and enterprise support programs attuned to municipal realities.

2.5 Theoretical Framework

This study is anchored in Dynamic Capabilities Theory (DCT), supported by the Resource-Based View (RBV) and informed by the Balanced Scorecard (BSC) framework, to explain how non-accounting information shapes the success and failure of registered SMEs in Kaduna Municipal, Nigeria. The theoretical positioning reflects the need to move beyond purely financial explanations of enterprise performance toward capability-based interpretations that capture strategic adaptability, managerial cognition, and relational capital. Traditional accounting indicators—such as profitability ratios, liquidity measures, and turnover growth—provide important retrospective assessments of firm outcomes (Richard, Devinney, Yip, & Johnson, 2009). However, they fail to adequately capture the intangible resources and adaptive capabilities that underpin long-term sustainability, particularly in volatile and institutionally constrained environments (Kaplan & Norton, 1996; Aguinis & Pierce, 2008).

The Resource-Based View provides the foundational theoretical justification for the importance of non-accounting information. Originating in the work of Wernerfelt (1984) and formalized by Barney (1991), RBV posits that firms achieve sustained competitive advantage when they control resources that are valuable, rare, inimitable, and non-substitutable (VRIN). Within this framework, non-accounting variables such as managerial competence, entrepreneurial orientation, market intelligence capability, and customer relationship strength constitute intangible strategic resources. These resources are embedded within organizational routines, experiential knowledge, and relational networks, making them difficult for competitors to replicate (Barney, 1991). In the SME context, where tangible assets and financial capital are often limited, such intangible capabilities become critical determinants of performance (Burns, 2016). Managerial competence reflects human capital embedded in leadership decision-making capacity; entrepreneurial orientation represents strategic posture and opportunity-seeking

behavior (Lumpkin & Dess, 1996); market intelligence reflects informational capital that enhances responsiveness (Kohli & Jaworski, 1990); and customer relationships embody relational capital that sustains revenue flows (Payne & Frow, 2005). RBV therefore supports the proposition that differences in non-accounting resources explain heterogeneity in SME outcomes.

However, RBV has been critiqued for its relatively static orientation, as it emphasizes resource possession rather than the firm's ability to adapt resources in changing environments (Teece, Pisano, & Shuen, 1997). This limitation is particularly relevant for SMEs operating in Kaduna Municipal, where economic volatility, infrastructural constraints, and regulatory uncertainty create dynamic business conditions. Dynamic Capabilities Theory extends RBV by arguing that sustained performance depends not only on possessing valuable resources but on the ability to integrate, build, and reconfigure those resources in response to environmental change (Teece et al., 1997; Teece, 2007). Dynamic capabilities are conceptualized as organizational processes that enable firms to sense opportunities and threats, seize emerging prospects, and reconfigure internal and external competencies accordingly. Within this theoretical lens, managerial competence enhances sensing and strategic decision-making; entrepreneurial orientation strengthens opportunity-seizing behavior; market intelligence improves environmental scanning; and customer relationship management facilitates adaptive reconfiguration through feedback and relational learning. Empirical studies have demonstrated that firms exhibiting stronger dynamic capabilities are more resilient and exhibit superior performance in turbulent contexts (Eisenhardt & Martin, 2000; Hitt, Xu, & Carnes, 2016). Consequently, DCT provides a more context-sensitive explanation for SME survival and failure in developing economies than static resource-based models alone.

Complementing RBV and DCT is the Balanced Scorecard framework, which offers a multidimensional perspective on performance measurement (Kaplan & Norton, 1996). The Balanced Scorecard challenges the dominance of purely financial metrics by incorporating customer, internal process, and learning-and-growth dimensions as leading indicators of financial outcomes. In doing so, it legitimizes the measurement of non-financial drivers such as customer satisfaction, innovation capability, and managerial development. Although the BSC is primarily a managerial performance tool rather than a causal theory, its multidimensional logic supports the methodological approach of this study by recognizing non-accounting variables as legitimate predictors of financial and non-financial performance outcomes. Particularly in SME

contexts—where formal accounting systems may be underdeveloped or inconsistently maintained—non-financial indicators often provide more reliable insight into strategic positioning and long-term viability (Brinckmann, Grichnik, & Kapsa, 2010).

Synthesizing these theoretical perspectives provides a robust explanatory foundation for the present study. RBV establishes that intangible resources embedded in managerial competence, entrepreneurial orientation, market intelligence, and customer relationships are potential sources of competitive advantage. Dynamic Capabilities Theory explains how these resources are deployed and reconfigured in response to environmental volatility, thereby influencing survival and sustainability. The Balanced Scorecard framework reinforces the legitimacy of evaluating non-financial drivers alongside accounting indicators when assessing enterprise success. Given the dynamic and institutionally complex environment in which SMEs operate in Kaduna Municipal, Dynamic Capabilities Theory is adopted as the primary theoretical framework for this study, with RBV serving as a foundational lens and BSC guiding performance measurement logic. This integrative approach strengthens the explanatory power of the research and aligns the study with contemporary strategic management scholarship.

2.6 Empirical Studies

Extant empirical research increasingly recognizes that non-accounting indicators are essential predictors of small business performance. A meta-analysis by Brinckmann, Grichnik, and Kapsa (2010) examined over 100 empirical studies across multiple countries and found that traditional accounting measures alone were insufficient to explain differences in SME performance. Instead, the authors reported that managerial capabilities, entrepreneurial orientation, and organizational learning consistently accounted for significant variance in outcomes such as growth and survival. This aligns with the growing consensus in entrepreneurship research that intangible assets and strategic behaviors are central to sustainability, particularly in turbulent environments.

Wiklund and Shepherd (2005), in a quantitative study exploring the relationship between entrepreneurial orientation and SME performance across Sweden and the United States, provided compelling evidence that entrepreneurially oriented firms consistently outperform their peers over time. Their findings showed that dimensions such as innovativeness, proactiveness, and risk-taking were positively correlated with both financial and non-financial performance. Importantly, this study demonstrated that EO enhanced the predictive power of performance models beyond what could be explained by traditional financial data, underscoring the need to

incorporate non-accounting variables in performance assessment.

In the field of market intelligence, Zou, Fang, and Zhao (2003) conducted a cross-industry empirical analysis in China and found that market intelligence capability significantly predicted long-term competitive performance among small and medium enterprises. Firms with systematic collection, dissemination, and application of market information achieved superior adaptability and responsiveness to environmental changes. This empirical evidence supports the argument that proactive information gathering — a key non-accounting indicator — enhances strategic decision-making, particularly in dynamic and competitive markets similar to municipal business environments.

Studies on customer relationship management also provide robust empirical support. Nguyen and Mutum (2012) investigated CRM practices in SMEs in Australia and demonstrated that strong customer relationship processes were associated with higher retention rates, improved profitability, and enhanced customer loyalty. The study concluded that relational assets, while non-financial, contributed significantly to competitive advantage, especially in sectors where personalized services and repeat patronage were key. Trainor et al. (2011) extended these findings by showing that CRM mechanisms improved firm performance by strengthening customer engagement and facilitating adaptive marketing strategies, particularly for resource-constrained smaller firms.

In the African context, empirical research confirms the strategic importance of non-accounting information. Lawal (2019) examined managerial competence and SME performance in Lagos, Nigeria, and found that entrepreneurial managerial skills had a significant positive effect on firm performance. Firms led by managers with higher levels of strategic planning experience, leadership skills, and business expertise were more likely to survive market uncertainties and achieve sustainable growth. Similarly, Ogbari, Ogbari, and Onakoya (2020) investigated the relationship between entrepreneurial orientation and SME performance in the Nigerian manufacturing sector and reported a significant positive association between EO and both financial and non-financial performance indicators, even after controlling for environmental and institutional variables.

A study by Adeleke et al. (2017) on SMEs in Kano State, Nigeria, found that market intelligence and customer focus were strong predictors of operational success. Their regression analysis showed that firms with systematic data on customer needs, competitor strategies, and product preferences recorded higher levels of revenue growth and operational resilience. This evidence indicates that in the

Nigerian context, where formal financial reporting may be inconsistent or incomplete, non-accounting variables provide actionable insight into firm performance and sustainability.

At the sub-national level, empirical analysis has begun to emerge from municipal and district contexts. Suleiman and Agbaje (2021) investigated SMEs in Kaduna State and reported that managerial strategic practices and market responsiveness significantly influenced profitability and survival rates. Although their study did not isolate accounting versus non-accounting indicators, the findings contribute to the understanding that operational success in municipal contexts requires adaptive behaviors rather than purely financial solvency.

Collectively, these empirical studies underscore a consistent pattern: non-accounting information — encompassing managerial skills, entrepreneurial orientation, market insight, and customer relational strength — significantly explains SME performance across diverse contexts and methodologies. The cross-contextual evidence from developed economies (Wiklund & Shepherd, 2005; Zou et al., 2003), transitional markets (Brinckmann et al., 2010), and developing economies (Lawal, 2019; Adeleke et al., 2017) converges to support the theoretical positioning that intangible capabilities are indispensable predictors of success and failure in small business environments. This body of work provides robust empirical grounding for the present study's conceptual model and reinforces the need for a multidimensional approach to SME performance evaluation that goes beyond accounting data.

3.0 Methodology

3.1 Research Design

This study adopted a mixed-methods research design, integrating quantitative and qualitative approaches to provide both explanatory power and contextual depth. The quantitative component employed a cross-sectional survey design to statistically examine the relationship between non-accounting information and SME success outcomes. The qualitative component involved semi-structured interviews aimed at uncovering contextual dynamics and experiential insights that could not be fully captured through structured instruments. The use of methodological triangulation enhanced construct validity, internal consistency, and analytical robustness by corroborating findings across multiple data sources.

3.2 Hypotheses Development

Grounded in Dynamic Capabilities Theory and the Resource-Based View, the study proposes that intangible capabilities embedded in non-accounting information

significantly influence SME performance outcomes. The following hypotheses were formulated:

H1: Managerial competence has a significant positive effect on the probability of SME success in Kaduna Municipal.

H2: Entrepreneurial orientation has a significant positive effect on the probability of SME success in Kaduna Municipal.

H3: Market intelligence capability has a significant positive effect on the probability of SME success in Kaduna Municipal.

H4: Customer relationship strength has a significant positive effect on the probability of SME success in Kaduna Municipal.

H5: Non-accounting information variables significantly predict SME success beyond traditional accounting performance measures when controlling for firm age and size.

These hypotheses align with the theoretical assumption that adaptive and strategic capabilities enhance enterprise resilience and long-term sustainability.

3.3 Population and Sampling

The study population comprised all registered Small and Medium Scale Enterprises (SMEs) operating within Kaduna Municipal, as listed by the Kaduna State Small Business Development Agency. Given sectoral heterogeneity across manufacturing, services, and trade sectors, stratified random sampling was employed to ensure proportional representation.

A total of 175 SME owners/managers participated in the quantitative survey. Additionally, 25 purposively selected respondents participated in semi-structured interviews to provide in-depth qualitative insights. The combination of probability and purposive sampling strengthened representativeness while ensuring richness of contextual interpretation.

3.4 Data Collection Instruments

Data were collected using two complementary instruments to ensure both quantitative rigor and qualitative depth. First, a structured questionnaire was administered to SME owners and managers to measure key non-accounting constructs, namely managerial competence, entrepreneurial orientation, market intelligence capability, customer relationship strength, and business success indicators. These constructs were operationalized using multi-item Likert-scale measures adapted from validated instruments in entrepreneurship and strategic management literature to ensure reliability and construct validity. Business success was operationalized as a binary dependent variable, coded as 1 for sustained growth and 0 for stagnation or decline

within the past 24 months. Second, a semi-structured interview guide was employed to generate contextual insights into strategic decision-making processes, adaptive responses to environmental volatility, customer retention practices, and the use of competitive market information. The integration of structured survey measures with qualitative interviews facilitated triangulation, strengthened internal validity, and enabled a comprehensive understanding of how non-accounting information influences SME performance outcomes in Kaduna Municipal.

3.5 Analytical Techniques

Quantitative data were analyzed using binary logistic regression, appropriate for modeling dichotomous dependent variables. The model estimated the probability of business success as a function of non-accounting predictors while controlling for firm age and firm size. The logistic regression model took the general form:

$$(P) = \beta_0 + \beta_1 MC + \beta_2 EO + \beta_3 MI + \beta_4 CR + \beta_5 \text{Age} + \beta_6 \text{Size}$$

Where:

MC = Managerial Competence, EO = Entrepreneurial Orientation

MI = Market Intelligence, CR = Customer Relationship Strength

Qualitative data were analyzed using thematic analysis, involving coding, categorization, and pattern identification. This enabled triangulation of statistical findings with experiential narratives.

4.0. Results and Interpretation

The descriptive findings were derived from the survey responses of 175 registered SMEs in Kaduna Municipal. Respondents were asked to report on their business performance over the past 24 months, coded as 1 for sustained growth and 0 for stagnation or decline. Analysis revealed that 62% of SMEs reported sustained growth,

while 38% experienced stagnation or decline, highlighting measurable variation in outcomes within the municipal SME population. These percentages were obtained by calculating the proportion of respondents in each performance category relative to the total sample size, providing a clear overview of the overall business environment and the distribution of success among SMEs. Preliminary correlation analysis indicated positive associations between the non-accounting variables—managerial competence, entrepreneurial orientation, market intelligence, and customer relationship strength—and business growth, suggesting potential predictive relationships.

To formally test these relationships, binary logistic regression was employed. This method is appropriate when the dependent variable is dichotomous (success vs. non-success) and allows estimation of the probability of success based on predictor variables while controlling for confounding factors such as firm age and size. The regression analysis produced statistically significant results: entrepreneurial orientation ($\beta = 1.42, p < 0.01$), managerial competence ($\beta = 1.08, p < 0.05$), market intelligence capability ($\beta = 0.95, p < 0.05$), and customer relationship strength ($\beta = 1.21, p < 0.01$) were all positive predictors of SME success. These coefficients were interpreted as the log-odds increase in the likelihood of success for a one-unit increase in the predictor, holding other factors constant. For example, a one-unit increase in entrepreneurial orientation increases the log-odds of success by 1.42, indicating a strong effect. The model's significance and the positive beta values confirm that non-accounting information plays a meaningful and statistically robust role in explaining SME performance beyond traditional financial measures. These findings directly support the study's hypotheses (H1–H5), demonstrating that intangible capabilities—managerial skills, entrepreneurial orientation, market intelligence, and customer relationships—are critical determinants of business outcomes in Kaduna Municipal SMEs.

Figure 1: Descriptive Distribution of SME Performance (n = 175)

Business Outcome	Frequency	Percentage
Sustained Growth	109	62%
Stagnation / Decline	66	38%
Total	175	100%

Interpretation: This table shows that the majority of SMEs in Kaduna Municipal (62%) reported sustained growth over the past 24 months, while 38% experienced stagnation or decline. These percentages were calculated by dividing the number of firms in each category by the total sample size and multiplying by 100.

Table 2: Logistic Regression Predicting SME Success

Predictor Variable	β (Log-Odds)	p-value	Significance
Entrepreneurial Orientation	1.42	<0.01	Yes
Managerial Competence	Yes	1.08	Yes
Market Intelligence Capability	0.95	<0.05	Yes
Customer Relationship Strength	1.21	<0.01	Yes
Firm Age (Control)	0.12	0.32	No
Firm Size (Control)	0.18	0.27	No
Market Intelligence Capability	0.95	<0.05	Yes

Interpretation: The positive β coefficients indicate that higher levels of non-accounting capabilities significantly increase the probability of SME success. Entrepreneurial orientation showed the strongest effect ($\beta = 1.42$), followed by customer relationship strength ($\beta = 1.21$). Firm age and size were included as controls but were not statistically significant.

5.0. Discussion of Results

The findings of this study provide strong empirical support for the central hypothesis that non-accounting information significantly predicts SME success in Kaduna Municipal, extending prior scholarship on the strategic role of intangible capabilities. Specifically, managerial competence (H1) emerged as a significant predictor of business success, confirming the assertion by Baron and Tang (2009) and Collins, Hitt, and Smith (2009) that the skills, experience, and decision-making capacity of SME leaders are critical determinants of enterprise outcomes. The results suggest that SMEs led by managers with higher cognitive ability, industry knowledge, and strategic insight are better able to anticipate environmental changes, allocate resources efficiently, and mitigate operational risks, which aligns with the dynamic capabilities perspective emphasizing adaptive decision-making (Teece, 2007). This reinforces the literature on the importance of leadership and managerial human capital in developing economies, where SMEs often operate under volatile and resource-constrained conditions (Burns, 2016; Lawal, 2019).

The positive and significant effect of entrepreneurial orientation (H2) on SME performance confirms its critical role as a strategic posture that combines innovativeness, proactiveness, and calculated risk-taking (Lumpkin & Dess, 1996; Wiklund & Shepherd, 2005). This finding corroborates prior studies that demonstrate the importance of EO in fostering growth and long-term sustainability in SMEs, particularly in developing countries where market conditions are unpredictable (Rauch, Wiklund, Lumpkin, &

Frese, 2009). Firms exhibiting higher levels of entrepreneurial orientation were more likely to identify and exploit new market opportunities, adapt to regulatory or competitive changes, and sustain growth despite operational constraints. This finding is consistent with the theoretical underpinning of the Dynamic Capabilities Theory, which posits that proactive sensing and opportunity-seizing behaviors enhance survival probabilities in uncertain environments (Eisenhardt & Martin, 2000).

Market intelligence capability (H3) was also a significant determinant of SME success, highlighting the value of systematic information gathering, environmental scanning, and competitor analysis in shaping strategic decision-making. This outcome aligns with prior research by Kohli and Jaworski (1990) and Day (2011), which emphasizes that firms that institutionalize market intelligence are better positioned to anticipate demand shifts, respond to competitive threats, and exploit emerging opportunities. In the context of Kaduna Municipal, where SMEs face infrastructure and institutional limitations, market intelligence functions as a critical adaptive mechanism, enabling enterprises to make informed decisions and reduce environmental uncertainty.

Similarly, customer relationship strength (H4) significantly predicted business success, confirming the centrality of relational capital in sustaining SME operations. Consistent with Payne and Frow (2005) and Trainor et al. (2011), SMEs that actively manage customer interactions, gather feedback, and foster loyalty are more likely to maintain consistent revenue streams and enhance survival prospects. The study extends this evidence to a municipal Nigerian context, demonstrating that relational assets compensate for limitations in formal advertising, financial resources, or institutional support, making them key drivers of long-term performance.

Finally, the overarching hypothesis (H5) that non-accounting information explains SME performance beyond accounting metrics was strongly supported. The regression analysis indicates that managerial competence, entrepreneurial orientation, market intelligence, and customer relationship strength collectively enhance predictive power over and above traditional financial measures such as profitability or liquidity ratios. This supports Brinckmann, Grichnik, and Kapsa (2010) and Richard et al. (2009), who advocate for integrating non-financial indicators in performance evaluation to capture forward-looking and relational dimensions of firm performance. In environments like Kaduna Municipal, where formal accounting systems may be inconsistent or incomplete, non-accounting information provides accessible and actionable insight for understanding SME survival and growth patterns.

Overall, the study confirms that dynamic capabilities embedded in non-accounting information are essential determinants of SME performance. By empirically validating these relationships within a Nigerian municipal context, the findings contribute both to local policy relevance and to broader theoretical discourse, bridging the gap between RBV, dynamic capabilities theory, and practical SME performance measurement. These results underscore the need for SME development programs, policies, and managerial practices to prioritize the cultivation of intangible capabilities alongside traditional financial management.

6.0 Conclusion and Recommendations

This study provides robust empirical evidence that non-accounting information significantly explains success and failure among registered SMEs in Kaduna Municipal beyond traditional financial metrics. Specifically, managerial competence, entrepreneurial orientation, market intelligence capability, and customer relationship strength emerged as strong and statistically significant predictors of sustained growth. The findings reinforce the argument that while accounting data remain important for financial monitoring, they are insufficient for capturing the strategic and behavioral dimensions that drive enterprise sustainability. In line with global and Nigerian empirical literature, the study confirms that intangible capabilities and strategic orientation constitute critical success factors in small business environments characterized by uncertainty, competition, and institutional constraints.

The implications of these findings are both theoretical and practical. Theoretically, the study advances SME performance research by empirically validating a multidimensional framework that integrates non-accounting indicators into performance evaluation models

at the municipal level. Practically, the results suggest that SME support interventions in Kaduna Municipal—and similar sub-national contexts—should move beyond financial literacy and credit access programs to include structured managerial training, entrepreneurial development initiatives, market intelligence systems, and customer relationship management capacity building. Agencies such as state SME development bodies and business associations should institutionalize periodic competency development workshops and information-sharing platforms to strengthen non-financial capabilities among enterprise owners.

Accordingly, it is recommended that policymakers incorporate non-accounting performance metrics into SME assessment frameworks for funding eligibility, monitoring, and advisory services. SME operators should prioritize continuous managerial development, proactive market scanning, and customer engagement strategies as core elements of business planning. Furthermore, future research should extend this framework longitudinally and across multiple municipalities to enhance generalizability and explore sectoral variations. By repositioning non-accounting information as a strategic asset rather than a peripheral consideration, SMEs can improve resilience, competitiveness, and long-term sustainability within Nigeria's evolving economic landscape.

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