Measurement of Success without Measures: A Critical Review of Performance Indicators and the Strategy - Performance Link among Small and Medium Enterprises in Kabwe District, Zambia

Yanda L. Ndila[1*], Austin Mwange[2], Clement Mwaanga[3]

[1*]Scholar, The University of Zambia, Lusaka – Zambia

[2]Lecturer, The University of Zambia, Lusaka – Zambia

[3]Lecturer, Mulungushi University, Kabwe – Zambia

Corresponding Author*

DOI: https://doi.org/10.47772/IJRISS.2026.101000705

Received: 02 September 2026; Accepted: 07 September 2026; Published: 16 November 2026

ABSTRACT

Small and Medium Enterprises (SMEs) in Zambia are widely reported to fail or stagnate, yet owner-managers routinely describe their firms as successful. This paradox raises a prior question that strategy research seldom asks: how is SME performance conceptualized and measured, and can the measures in use carry the inferential weight placed on them? This paper critically appraises the performance indicators SMEs in Kabwe District, Central Province, Zambia, use and examines whether those indicators are empirically linked to the strategic management practices (SMPs) theorised to drive performance.

Grounded in Resource-Based Theory and Dynamic Capabilities Theory, the study adopted a concurrent mixed-methods design. Structured questionnaires were completed by 202 owner-managers of registered SMEs (response rate 91.8%), and semi-structured interviews were held with 100 of them. We examined six indicators: sales target attainment, profitability, customer satisfaction, product and service quality, revenue and market-share growth, and employee satisfaction. Quantitative data were analyzed using exploratory and confirmatory factor analysis and bootstrapped mediation analysis; qualitative data were analyzed using directed content analysis.

The six indicators formed a reliable, convergent construct (Cronbach's $\alpha = 0.888$; AVE = 0.670), and between 94.6% and 100% of respondents agreed that their firms met each indicator. However, reported performance was statistically unrelated to environmental scanning, strategy formulation, strategy implementation, and strategy evaluation and control ($r = -0.137$ to 0.002); no model explained more than 3.3% of the variance in performance, and innovation was negatively associated with reported performance ($b \approx -0.31$, $p < .05$). Interviews revealed the mechanism: owner-managers invoked sales, profits and customers as measures but could not quantify any of them.

The study makes four contributions. Theoretically, it shows that the feedback loop assumed by Resource-Based and Dynamic Capabilities theories is open, where performance is not measured, positioning performance measurement as a micro-foundation of sensing capability. Methodologically, it demonstrates that a perceptual scale can pass conventional psychometric tests yet fail a substantiation test. Practically, it recommends that SME support programmes build record-based measurement before strategy training. Contextually, it extends SME strategy research to an under-studied post-mining district. As a cross-sectional study of registered, surviving firms, the findings are associational and bounded to that population.

Keywords: SME Performance, Performance Indicators, Performance Measurement, Strategic Management Practices, Mixed Methods, Resource-Based Theory, Dynamic Capabilities Theory, Zambia.

INTRODUCTION

Ask the owner of a small business in Kabwe how the business is doing, and the answer is almost invariably "well." In this study, 100% of 202 owner-managers agreed that their firms consistently meet or exceed sales targets, with 83.7% agreeing strongly. However, the Zambian literature portrays a sector in distress: three out of five enterprises fail early, about 70% of sampled firms in Lusaka were failing or static, and their contribution to gross domestic product (GDP) remains far below that of counterparts in Ghana and South Africa. Owner-managers also face high interest rates and collateral requirements that constrain access to finance. Both narratives cannot be fully true. Either the national account of SME distress is overstated, or the way owners and researchers measure SME performance does not capture what it purports to capture (Ndila, 2025; Chivwindi et al., 2023; Cherono & Njeru, 2024; Kamunge et al., 2014; World Bank, 2021).

This paper interrogates the second possibility. Performance is the dependent variable in almost every study of small business strategy. Strategic Management Practices (SMPs), namely environmental scanning, strategy formulation, strategy implementation, and strategy evaluation and control, are promoted to SMEs on the promise that they improve performance. If the indicators used to operationalise performance are weak, the entire inference chain from strategy to success is compromised (Cherono & Njeru, 2024; Wheelen & Hunger, 2012).

The study is situated within a longstanding debate on organizational performance measurement. Venkatraman and Ramanujam (1986) argued that business performance is a multidimensional construct that financial figures alone cannot represent, and Kaplan and Norton (1992) operationalized that argument through the balanced scorecard. Dess and Robinson (1984) showed that subjective, perceptual measures can proxy objective measures when accounting records are unavailable, as is common for privately held small firms. A subsequent stream of research cautioned that such measures are susceptible to common-method variance and social desirability bias (Podsakoff et al., 2003; Richard et al., 2009; Wall et al., 2004). Work specific to SMEs further shows that small firms rarely operate formal performance measurement systems and that what they do measure is operational, financial and short-term in nature (Garengo et al., 2005; Hudson et al., 2001; Rojas-Lema et al., 2021).

The African SME literature has largely bypassed this debate. Studies in Kenya, Nigeria, Zimbabwe and Zambia typically ask owner-managers to rate their own performance on Likert items and then correlate those ratings with self-rated strategic practices. These studies report positive associations and recommend strategic management, even though they seldom report or validate the performance items themselves (Agwu, 2018; Cherono & Njeru, 2024; Sekere et al., 2023). This study addresses that gap. Using mixed-methods evidence from Kabwe District, the capital of Zambia's Central Province and a former mining town whose economy now depends heavily on small enterprises, the paper pursues three objectives:

1. To establish which indicators SMEs in Kabwe District employ to judge their own performance;
2. To assess whether those indicators form a reliable and valid measure of SME performance; and
3. To examine whether performance, so measured, is empirically linked to the Strategic Management Practices expected to drive it, directly or through innovation.

The study contributes originality in three ways. First, it reverses the usual analytical order. Rather than assuming the performance scale is sound and testing what predicts it, the study treats the dependent variable as the object of inquiry and asks whether owner-managers can substantiate their ratings. This substantiation test is rarely applied in African SME research, which has relied on psychometric reliability as sufficient evidence of measurement quality.

Second, the study integrates Resource-Based Theory, Dynamic Capabilities Theory and the strategic management process model around an assumption they share but seldom state: that performance is observed and fed back into decisions. By showing what happens when that assumption fails, the study positions performance measurement not as an administrative routine but as a precondition for strategic learning in small firms (Teece, 2007; Garengo et al., 2005).

Third, the study situates the analysis in Kabwe, a post-mining district underrepresented relative to Lusaka and

the Copperbelt, and combines a near-complete survey with 100 interviews with the same respondents. This design allows every quantitative pattern to be checked against the owner-manager's own account, providing evidence of why a strategy–performance link does or does not appear rather than only whether it does.

Practically, the findings are relevant to owner-managers, who are trained in strategy before they can measure its results; to agencies such as the Ministry of Small and Medium Enterprise Development and the Zambia Development Agency, which require credible evidence that support programmes work; and to researchers who rely on single-source perceptual scales as the sole evidence of SME performance. The remainder of the paper reviews the relevant theory and literature, develops five propositions, describes the methodology, presents the results, discusses their implications, and concludes with the study's contributions, limitations, and directions for future research.

LITERATURE REVIEW

Theoretical Foundations

This study is anchored on two theories of the firm and one process model. Resource-Based Theory (RBT) posits that performance heterogeneity arises from resources that are valuable, rare, inimitable and non-substitutable (Barney, 1991). In small firms, such resources are predominantly intangible: the owner's knowledge, customer relationships and reputation. Dynamic Capabilities Theory (DCT) extends RBT by arguing that competitive advantage in changing environments depends on the capacity to sense opportunities, seize them and reconfigure resources (Teece et al., 1997; Teece, 2007). The strategic management process model provides the operational mechanism through which both are expected to function: environmental scanning, strategy formulation, strategy implementation, and evaluation and control (Wheelen & Hunger, 2012).

All three perspectives share an implicit assumption that is rarely stated: each presupposes performance as an observable outcome that feeds back into decision-making. Evaluation and control, by definition, involve comparing measured results with intended ones. Sensing and reconfiguring require a signal that something is or is not working. If a firm lacks a dependable measure of its own results, the feedback loop upon which these theories depend remains open.

How SME Performance is Measured

Performance measurement quantifies the efficiency and effectiveness of action (Neely et al., 1995). The literature on SME performance reflects three positions. The first is financial: Srinivasarao et al. (2020) identify cash flow, product profitability, and returns on sales, capital and equity as key performance indicators (KPIs) for SMEs. The second is multidimensional. Following Venkatraman and Ramanujam (1986) and Kaplan and Norton (1992), performance is conceptualized to include customer, quality, growth and people outcomes alongside financial metrics. Reviews by Zulkiffli and Perera (2011) and Rojas-Lema et al. (2021) confirm that SME studies most frequently employ sales, profit, customer growth, retention, satisfaction and product quality.

The third position concerns data sources. Because small private firms seldom publish accounts, researchers rely on perceptual measures. Dess and Robinson (1984) and Wall et al. (2004) reported correlations between perceptual and objective measures, thereby legitimizing the practice. However, Richard et al. (2009) caution that subjective measures are vulnerable to halo and recall effects, and Podsakoff et al. (2003) demonstrate that when predictor and outcome are obtained from the same respondent using the same instrument, common-method variance can inflate or suppress observed relationships. Self-ratings of one's own enterprise are also exposed to social desirability bias, the tendency to present oneself favorably (Chilangwa et al., 2023; Fisher, 1993).

Performance Measurement inside Small Firms

A distinct literature examines what SMEs actually do, as opposed to what researchers ask them. Garengo et al. (2005) and Hudson et al. (2001) conclude that performance measurement in SMEs is informal, unplanned, backwards-looking and dominated by operational and financial figures, largely because owners lack time,

skills and information systems. Mintzberg and Waters (1985) offer a complementary explanation: small-firm strategy is largely emergent, formed in action without written targets against which results could be compared. Where formal structures are adopted mainly for legitimacy, they may be displayed without being used to guide action (Meyer & Rowan, 1977).

Strategy and Performance in African SMEs

Empirical studies in the region predominantly report that SMPs improve performance. Sekere et al. (2023) fou-

nd that environmental scanning influenced the performance of Kenyan SMEs; Agwu (2018) reported positive effects of strategic management on Nigerian SMEs; and Cherono and Njeru (2024) found similar results in Nairobi County. These studies share a common design: cross-sectional, single-respondent and perceptual on both sides of the equation. None report whether respondents could substantiate their performance ratings, and few report the distribution of the performance items before estimating structural relationships.

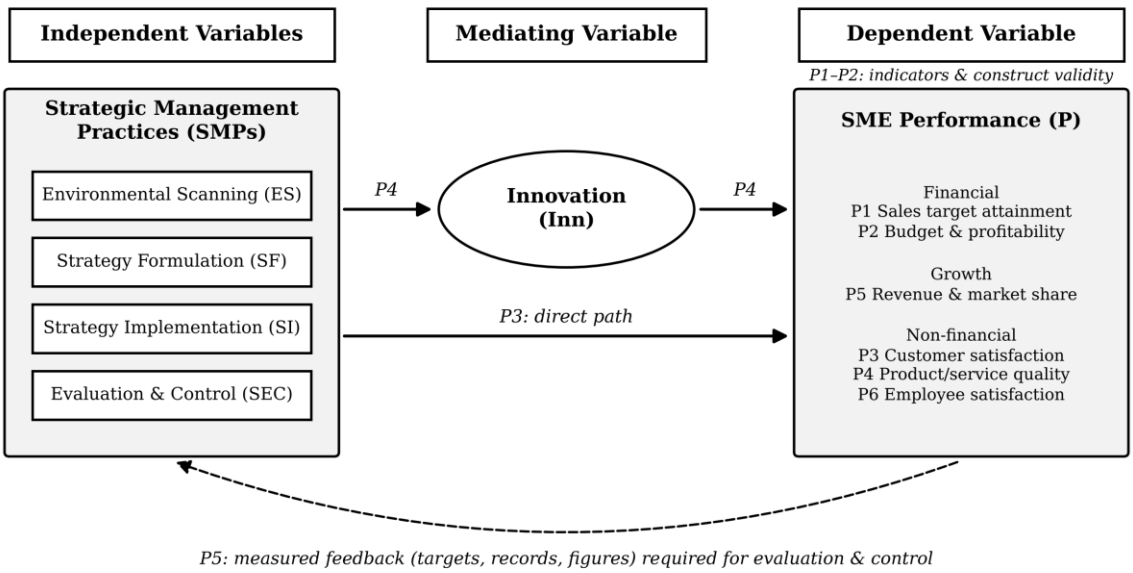
Synthesis and Research Gap

The argument can be synthesized as follows. Theory posits that strategy enhances performance through a measured feedback loop. The measurement literature establishes that SME performance is multidimensional and that perceptual scales are acceptable but fallible. The SME literature indicates that small firms rarely measure formally. Regional studies nevertheless treat perceptual scales as sufficient. Three gaps remain: a contextual gap, since researchers rarely study Zambian districts outside Lusaka and the Copperbelt; a measurement gap, since researchers assume the performance construct's validity rather than test it; and a methodological gap, since researchers seldom check perceptual ratings against what owners can demonstrate. What is missing is a study that tests the performance scale itself and compares it with owner-managers' evidence.

Conceptual Framework and Propositions

Figure 1 presents the conceptual framework. Strategic management practices are positioned as the independent variables, innovation as the mediating variable and SME performance, measured through six financial, growth and non-financial indicators, as the dependent variable. The dashed path represents the measured feedback from performance to evaluation and control on which the strategic management model depends. Five propositions follow.

Figure 1: Conceptual Framework



Source: Authors' Conceptualization, 2025

P1: SMEs in Kabwe District judge performance on both financial and non-financial indicators, as predicted by the multidimensional view (Kaplan & Norton, 1992; Venkatraman & Ramanujam, 1986).

P2: These indicators form a reliable and valid single construct, as assumed in prior perceptual studies (Dess & Robinson, 1984; Wall et al., 2004).

P3: Performance is positively associated with environmental scanning, strategy formulation, strategy implementation, and strategy evaluation and control, as predicted by the strategic management model and regional studies (Agwu, 2018; Cherono & Njeru, 2024; Sekere et al., 2023; Wheelen & Hunger, 2012).

P4: Innovation mediates the relationship between SMPs and performance, as implied by DCT: firms that sense and plan should innovate, and innovation should yield returns (Teece, 2007).

P5: Owner-managers can substantiate their performance ratings with targets, records or figures, which is the condition under which perceptual measures constitute valid proxies (Dess & Robinson, 1984; Richard et al., 2009).

P3 and P4 represent conventional claims. P2 and P5 are the conditions that must hold for those claims to be testable. If P2 holds but P5 fails, the scale measures a shared belief about performance, not performance itself.

STUDY METHODOLOGY

This section describes the research philosophy and design, the study setting and sample, the instruments and measures, the analytical procedures, the treatment of threats to validity, and the ethical considerations.

Research Philosophy and Design

The study adopted a pragmatist philosophy and a concurrent mixed-methods design (Creswell & Plano Clark, 2018). Pragmatism was appropriate because the research question required both measurement and explanation. A questionnaire can establish how strongly owner-managers rate their performance and how those ratings relate to strategic practices, but it cannot reveal what lies behind a rating. Semi-structured interviews conducted with the same respondents allow each quantitative pattern to be checked against the respondent's own account. The study collected quantitative and qualitative strands in parallel, analyzed them separately, and integrated them at the interpretation stage, using interview evidence to test P5 and explain the quantitative results. The design is cross-sectional. The data originated from the first author's doctoral study (Ndila, 2025).

Study Setting, Population and Sampling

Kabwe District was purposively selected for three reasons: its post-mining economy depends heavily on small enterprises; it is under-studied compared with Lusaka and the Copperbelt; and its compact business district made a near-complete survey feasible. The unit of analysis was the enterprise, and the respondent was its owner or manager.

The sampling frame comprised 500 SMEs listed in the records of the Patents and Companies Registration Agency (PACRA) and Kabwe Municipal Council that met the Zambian national definition of an SME and had held trading licences for more than five years. Slovin's formula at a 5% margin of error yielded a target of 222 firms, rounded to 220. Firms were selected by simple random sampling, and 202 firms returned usable questionnaires, a response rate of 91.8%. A pilot with 22 firms (10% of the target sample) was used to refine both instruments. Interviews were conducted with the same owner-managers until thematic saturation was reached at the 100th interview.

Research Instruments and Measures

The questionnaire comprised 45 items on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree), adapted from the strategic management and performance measurement literature, together with items on respondent and firm characteristics. Table 1 presents the operationalization of the constructs.

Table 1: Operationalization of Constructs

Construct	Code	No. of Items	Operational Definition
Environmental Scanning	ES	7	Monitoring customers, competitors, regulation and trends
Strategy Formulation	SF	8	Development of vision, mission, goals and strategic choice
Strategy Implementation	SI	6	Translation of plans into action, resources and structure
Strategy Evaluation and Control	SEC	6	Reviewing results and taking corrective action
Key Success Factors	KSF	9	Employee involvement, resources, motivation, support for creativity
Innovation	Inn	3	New products, services and processes
Organizational Performance	P	6	P1 sales targets; P2 budget and profitability; P3 customer satisfaction; P4 quality; P5 revenue and market-share growth; P6 employee satisfaction
Total		**45**	

Source: Authors' compilation based on Wheelen and Hunger (2012), Teece (2007), Kaplan and Norton (1992), Venkatraman and Ramanujam (1986) and Ndila (2025)

The six performance items combine two financial indicators (P1, P2), one growth indicator (P5) and three non-financial indicators (P3, P4, P6), consistent with the multidimensional view proposed by Venkatraman and Ramanujam (1986) and Kaplan and Norton (1992). The interview guide probed, for each stage of the strategic management process, how the firm measured effectiveness and its effect on sales, profitability, customer numbers, and employee satisfaction. Where a respondent named an indicator, follow-up probes asked for the target, the record in which results were kept, and the most recent figure. These probes operationalized the substantiation test in P5.

Data Analysis Procedures

Quantitative data were analyzed in IBM SPSS 27 and AMOS. Sampling adequacy was assessed using the Kaiser–Meyer–Olkin (KMO) measure and Bartlett's test of sphericity. Exploratory Factor Analysis (EFA) employed principal axis factoring with Promax rotation; items with loadings < 0.45 or communalities < 0.30 were removed. Confirmatory Factor Analysis (CFA) tested the measurement model against the criteria of Hu and Bentler (1999) and Hair et al. (2019). Internal consistency was assessed using Cronbach's α (Cronbach, 1951) and composite reliability (CR), with $\alpha \geq 0.70$ deemed acceptable (Nunnally & Bernstein, 1994). Convergent validity was assessed through average variance extracted (AVE ≥ 0.50), and discriminant validity through the Fornell–Larcker criterion (Fornell & Larcker, 1981).

Associations between performance and the SMPs were examined through latent correlations. Mediation was tested using PROCESS Macro Model 4 with 5,000 percentile bootstrap samples and 95% confidence intervals (Hayes, 2022), following earlier Zambian studies (Mwaanga, 2022); an indirect effect was judged significant when its confidence interval excluded zero. Qualitative data were analyzed through directed content analysis, using the strategic management model as the initial coding frame (Hsieh & Shannon, 2005). For each named indicator, responses were coded as substantiated where the respondent cited a target, a record or a figure, and as unsubstantiated otherwise.

Threats to Validity and Common Method Variance

Because the predictor and outcome were drawn from the same respondents, common method variance was treated as a substantive threat rather than a technicality (Podsakoff et al., 2003). The principal remedy was methodological triangulation: interview evidence from 100 of the same respondents was used to test whether

ratings could be substantiated. Table 2 summarizes this and the other threats anticipated in the design, together with the strategies adopted to mitigate them.

As a statistical check, we conducted Harman's single-factor test. Principal Axis Factoring extracted 7 factors with eigenvalues > 1, together accounting for 53.98% of the total variance. Crucially for common method bias, the first unrotated factor accounted for only 20.60% of the variance (19.51% after extraction), well below the 50% threshold in Harman's single-factor test (Podsakoff et al., 2003). No single factor dominates the data, indicating that common method variance is unlikely to have seriously biased the results. This is consistent with the near-zero and negative inter-construct correlations reported in Table 4 (r = -0.170 to 0.002).

Table 2: Validity Threats and Mitigation Strategies

No.	Potential Pitfall	Why It Matters in This Context	Adopted Mitigation Strategy
1	Single-source self-report bias	Both SMP and performance ratings were obtained from the same respondent using the same instrument, risking inflated correlations	Methodological triangulation through semi-structured interviews with 100 respondents to verify whether ratings could be substantiated; cautious interpretation of effect sizes
2	Survivor bias	Sampling frame restricted to firms with > 5 years' trading license; failed firms are systematically absent	Explicitly acknowledged as a boundary condition; findings generalized only to established, registered SMEs in Kabwe District
3	Frame bias	Unregistered and informal enterprises excluded from PACRA and Municipal Council records	Sampling frame cross-checked between two official sources (PACRA and Kabwe Municipal Council); informal sector identified as a direction for future research
4	Instrument weakness	Items adapted from international literature may not fit the Zambian SME context	Pilot study with 22 firms (10% of target sample), followed by EFA and CFA on the main sample to establish contextual validity
5	Model over-fitting	Acceptable fit can be achieved artificially by deleting low-loading items and correlating error terms	Full disclosure of all 13 item deletions and 16 correlated error covariances; fit indices interpreted cautiously
6	Qualitative subjectivity	Directed content analysis risks forcing data into pre-determined categories	Fixed coding frame derived from the strategic management model applied to all 100 transcripts; verbatim quotations reported with participant codes (P1–P100) for audit trail
7	Common Method Variance (CMV)	Single method/single respondent can inflate observed relationships	Harman's single - factor test: first unrotated factor explained 20.60% (19.51% after extraction) of total variance below the 50% threshold; interview triangulation used to test substantiation of ratings

Source: Authors' compilation, adapted from Podsakoff et al. (2003)

Ethical Considerations

The authors obtained ethical clearance through introductory letters from the University of Zambia and the Kabwe Chamber of Commerce and Industry. Participation was voluntary, informed consent was secured before each questionnaire and interview, and anonymity was maintained by reporting interview evidence only under participant codes.

STUDY RESULTS

This section presents the respondent profile, followed by the results for each proposition in turn. Of the 220 SMEs sampled, 202 returned usable questionnaires (91.8%), with no missing data.

Respondent and Firm Profile

Table 3: Respondent and Firm Profile (n = 202)

Variable	Category	Frequency	Percentage
Gender	Male	151	74.8
	Female	51	25.2
Age	26–45 years	158	78.3
	Other age groups	44	21.7
Highest qualification	Bachelor's degree	61	30.2
	Diploma	58	28.7
	Postgraduate	26	12.9
	Other	57	28.2
Sector	Goods	87	43.1
	Services	82	40.6
	Goods and services	33	16.3
Reported firm age	1–3 years	15	7.4
	4–6 years	53	26.2
	7–12 years	64	31.7
	≥ 12 years	70	34.7

Source: Field data, 2025

Respondents were predominantly male (74.8%) and in mid-career (78.3% aged 26–45), and most held a tertiary qualification. Goods and services firms were almost equally represented. Reported firm age was 1–3 years for 7.4% of firms; because the sampling frame required more than five years of licensing, this is attributed to respondents reporting their own tenure rather than the firm's licensing history. The profile indicates educated, established owner-managers, the group most likely to have been exposed to strategy training.

Indicators Used by SMEs to Judge Performance (P1)

Table 4: Performance Indicators Reported by SMEs in Kabwe District (n = 202)

Indicator	Code	Undecided n (%)	Agree n (%)	Strongly Agree n (%)	Total Agree (%)	Mean	SD	EFA Loading
Meets or exceeds sales targets	P1	0 (0.0)	33 (16.3)	169 (83.7)	100	4.84	0.37	0.629
Operates within budget and is consistently profitable	P2	9 (4.5)	49 (24.3)	144 (71.3)	95.6	4.67	0.56	0.709
Customers are consistently satisfied	P3	11 (5.4)	61 (30.2)	130 (64.4)	94.6	4.59	0.6	0.848
Delivers high-quality goods and services	P4	11 (5.4)	57 (28.2)	134 (66.3)	94.5	4.61	0.59	0.815

Steady growth in revenue and market share	P5	3 (1.5)	53 (26.2)	146 (72.3)	98.5	4.71	0.49	0.797
Employees are valued, motivated and satisfied	P6	0 (0.0)	53 (26.2)	149 (73.8)	100	4.74	0.44	0.766

Source: Field data, 2025

Note: Scale: 1 = Strongly Disagree to 5 = Strongly Agree. No respondent selected Disagree or Strongly Disagree for any item. Loadings were extracted via principal axis factoring with Promax rotation.

No respondent disagreed with any item; total agreement ranged from 94.6% to 100%, and item means ranged from 4.59 to 4.84, with standard deviations of 0.37 to 0.60. Interview responses invoked the same indicators at every stage of the strategic management process. The pattern supports P1: SMEs in Kabwe District judge performance on both financial and non-financial indicators, with sales, profit and customer metrics at the core. The distribution also reveals a pronounced ceiling effect, which restricts the variance available for any subsequent test of association.

Reliability and Validity of the Performance Construct (P2)

The data were suitable for factor analysis (KMO = 0.803; Bartlett's χ^2 (741) = 3711.95, $p < .001$). EFA extracted seven factors explaining 53.98% of the variance. The performance items loaded on a single factor (0.629–0.848) without cross-loadings. Table 5 reports the fit of the re-specified CFA measurement model, and Table 6 reports reliability, convergent validity and discriminant validity.

Table 5: Confirmatory Factor Analysis Model Fit Indices

Fit Index	Recommended Threshold	Obtained Value	Assessment
χ^2/df	< 3.00	1.689	Excellent
Comparative Fit Index (CFI)	≥ 0.90 (≥ 0.95 good)	0.914	Acceptable
Tucker–Lewis Index (TLI)	≥ 0.90 (≥ 0.95 good)	0.901	Acceptable
Root Mean Square Error of Approximation (RMSEA)	≤ 0.08 (≤ 0.06 good)	0.059	Acceptable
Standardized Root Mean Square Residual (SRMR)	≤ 0.08	0.063	Excellent

Source: Field data, 2025; Thresholds from Hu and Bentler (1999) and Hair et al. (2019)

Table 6: Reliability, Convergent Validity and Discriminant Validity (n = 202)

Construct	Cronbach's α	CR	AVE	√AVE	Correlation with Performance (r)	Shared Variance (r^2)
Performance (P)	0.888	0.888	0.67	0.818	–	–
Environmental Scanning (ES)	0.905	0.913	0.599	0.774	0.002	0.00%
Strategy Formulation (SF)	0.805	0.712	0.452	0.672	−0.068	0.46%
Strategy Implementation (SI)	0.851	0.842	0.471	0.686	−0.137	1.88%
Strategy Evaluation and Control (SEC)	0.865	0.888	0.616	0.785	−0.098	0.96%
Key Success Factors (KSF)	0.784	0.793	0.49	0.7	−0.134	1.80%
Innovation (Inn)	0.79	0.8	0.575	0.758	−0.170*	2.89%

Source: Field data, 2025

Note: *p < .05; all other correlations with Performance are non-significant (p > .05). Thresholds: α ≥ 0.70; CR ≥ 0.70; AVE ≥ 0.50 (Hair et al., 2019; Nunnally & Bernstein, 1994). AVE values for SF, SI and KSF are marginal but were retained owing to adequate CR. Discriminant validity was assessed via the Fornell–Larcker criterion (Fornell & Larcker, 1981). All constructs exceeded the 0.70 threshold for both Cronbach's α and CR. The performance construct recorded α = 0.888, CR = 0.888 and AVE = 0.670, establishing convergent validity. The square root of the AVE for performance (0.818) exceeded all of its correlations with the other constructs (0.002 to 0.170), confirming discriminant validity. P2 is supported: by every conventional psychometric standard, the six indicators form a sound measure.

Association between Performance and Strategic Management Practices (P3)

No SMP was significantly correlated with performance (r = −0.137 to 0.002), and the maximum variance shared with any SMP was 1.88%. By contrast, the SMPs were strongly inter-related (e.g., SF–SI r = 0.641, p < .001), indicating that respondents' strategy ratings were internally coherent. Performance therefore sits outside the strategy system. P3 is not supported.

Mediating Role of Innovation (P4)

Table 7: Bootstrapped Mediation Results with Performance as Outcome Variable (PROCESS Macro Model 4, 5,000 Bootstrap Samples, n = 202)

X	M	X → M b (p)	M → P b (p)	Direct Effect b (p)	Total Effect b (p)	Indirect Effect (ab)	95% Bootstrap CI	R^2
ES	Inn	−0.071 (0.004) **	−0.309 (0.028) *	−0.007 (0.890)	0.015 (0.756)	0.022	[0.002, 0.054]	0.029
SF	Inn	0.027 (0.464)	−0.306 (0.026) *	0.009 (0.896)	0.001 (0.988)	−0.008	[−0.036, 0.012]	0.029
SI	Inn	−0.003 (0.931)	−0.306 (0.025) *	−0.094 (0.171)	−0.093 (0.179)	0.001	[−0.025, 0.023]	0.033
SEC	Inn	0.052 (0.220)	−0.300 (0.030) *	−0.033 (0.690)	−0.048 (0.559)	−0.016	[−0.048, 0.007]	0.025
SI	KSF	0.084 (0.320)	−0.127 (0.029) *	−0.083 (0.231)	−0.093 (0.179)	−0.011	[−0.035, 0.009]	0.033

Source: Field data, 2025

Note: Unstandardized coefficients reported. *p < .05; **p < .01. CI = confidence interval. An indirect effect is significant if the CI does not include zero. Mediation tested following Hayes (2022). X = predictor; M = mediator; Inn = Innovation; ES = Environmental Scanning; SF = Strategy Formulation; SI = Strategy Implementation; SEC = Strategy Evaluation and Control; KSF = Key Success Factors.

Three results stand out. First, the total effect of every practice on performance was non-significant (all p > .17), replicating the P3 finding with a different estimator. Second, innovation was negatively related to performance in all four innovation models (b = −0.300 to −0.309, p < .05): firms reporting more innovation reported slightly lower performance. Third, four of the five indirect effects had confidence intervals that included zero. The exception was Environmental Scanning, where a small positive indirect effect (0.022, 95% CI [0.002, 0.054]) arose from the product of two negative paths and therefore does not represent the theorized mechanism. Overall, the models explained very little variance in performance (R^2 = 0.025 to 0.033). P4 is not supported in the form predicted by theory.

Substantiation of Performance Ratings (P5)

The interviews tested whether the high ratings could be substantiated. Across the 100 interviews, owner-managers readily named sales, profits and customers as the measures by which they judged their businesses, and did so at every stage of the strategic management process. However, when asked about targets, record-

keeping systems, or the most recent figures, respondents rarely provided quantified answers. Performance was described in evaluative terms rather than measured terms. The indicators were therefore named but not quantified, and P5 is not supported.

Sales, profits and customers were quoted by participants as measures of performance without any quantifiable target, record or figure when probed.

Sales as an indicator named, but not quantified

"When we have increased sales…" (P16)

"When what we plan to sell in a given period is achieved…" (P60)

"Rate of returns against sales for the month, it is conducted every month" (P36)

P16 and P60 name sales growth as the criterion, but neither states a baseline, a target amount, a percentage increase, or a period figure when probed. P36 asserts a monthly calculation, "rate of returns against sales", yet provides no rate, numerator, denominator or record to substantiate it.

The trailing ellipsis in P60's response reflects the typical pattern in the interviews: the claim stopped at the general assertion.

Profits and customers show the same pattern;

"When we have business growth e.g increases in revenue collection" (P47)

"Once we see more customers, we do tell that our services are of quality and appreciated by our customers" (P4)

"Large customer/consumer base" (P19)

P47 invokes revenue/profit growth with no figure. P4 and P19 treat a visible increase in customers as proof of performance, but neither could cite a customer count, retention rate, repeat-purchase rate, or satisfaction score.

Similarly, on customer feedback: Through employer engagement and customer feedback" (P14)

P14 cites feedback as evidence, but no feedback instrument, score or record was produced.

Out of the 100 interviewees, all performance claims remained at the level of general assertion, i.e., "increased," "more," "large," "growth. "Note for you as author: If your full coding sheet shows 1-2 exceptions, replace "0" with the exact count (e.g., "2 of 100") and name them. Do not leave the 0 if you recall any exception.

Thus, Table 3's near-unanimous agreement (94.6%–100%) reflects aspirational self-report rather than measured performance.

Summary of Results

Table 8: Propositions and Outcomes

Proposition	Evidence	Outcome
P1: Indicators are financial and non-financial	Six-item scale; interview themes at all four stages	Supported
P2: Indicators form a reliable, valid construct	$\alpha = 0.888$; AVE = 0.670; loadings 0.629–0.848	Supported

P3: Performance is associated with SMPs	r from −0.137 to 0.002; all total effects p > .17	Not supported
P4: Innovation mediates SMP–performance	Innovation–performance path negative; four of five indirect effects include zero	Not supported
P5: Ratings can be substantiated	Indicators named, almost never quantified	Not supported

Source: Authors' compilation, 2025

The results that require the most discussion are the combination of P2 with P3 and P5, and the negative sign on innovation.

DISCUSSION OF THE FINDINGS

The study tested whether the indicators Kabwe's SMEs use to judge themselves can carry the inferential weight that strategy research places on them. They are coherent but unanchored. Owner-managers share a consistent vocabulary of success and rate themselves highly, yet cannot evidence the rating. A scale built on those ratings is internally sound and externally silent.

A Vocabulary of Performance without a Measurement System (P1, P2 and P5)

SMEs in Kabwe have a vocabulary of performance but no system for measuring it. The lexicon aligns closely with international reviews (Rojas-Lema et al., 2021; Zulkiffli & Perera, 2011), and the indicators cohere statistically. However, if performance measurement is the quantification of action (Neely et al., 1995), what Kabwe's owner-managers practice is performance naming. The apparatus that converts a word into a measure, namely a target, a record, a period and a comparison, is absent. The high reliability of the scale is better read as evidence of a shared belief about what success looks like than as evidence that success has been achieved.

Practical implication: Owner-managers should convert the indicators they already use into measures by writing down a target for each, recording actual results and reviewing the difference at fixed intervals.

The Decoupling of Strategy and Reported Performance (P3)

The null strategy–performance link, together with 100% agreement on meeting sales targets amid reported inflation and competition, requires explanation. Three mechanisms plausibly interact. The first is survivor bias: the sampling frame excluded firms that had failed. The second is social desirability, the tendency to present one's enterprise favorably (Fisher, 1993). The third, and the one the interviews point to most directly, is the absence of written targets: a target that is not specified cannot be missed. The resulting ceiling effect restricts variance and explains part of the null result, but not all of it. The interviews also indicate that strategy is espoused but not enacted, while performance is believed but not measured. This pattern is consistent with emergent strategy (Mintzberg & Waters, 1985) and with the ceremonial adoption of formal structures that are displayed rather than used (Meyer & Rowan, 1977).

Practical implication: Support agencies should not assume that strategy training will improve performance where firms cannot observe their results; evaluation and control must be anchored in recorded figures before planning can be linked to outcomes.

The Negative Innovation–Performance Association (P4)

The negative association between innovation and reported performance runs counter to DCT's expectation that innovation yields return (Teece, 2007). Three explanations are plausible. Costs of innovation may precede its returns, so that a cross-sectional design captures the investment but not the payoff. Struggling firms may innovate in response to difficulty, reversing the causal direction. Alternatively, firms that innovate may also scrutinize their results more closely and therefore rate themselves more soberly. Each explanation is testable with longitudinal or record-based data, and none supports a simple positive claim.

Practical implication: Owner-managers and financiers should evaluate innovation over a time horizon long enough for returns to materialize, and should track its costs and returns separately.

Theoretical Implications

The findings refine RBT and DCT. Evaluation and control ($r = -0.098$) cannot function without measured results, which reduces the strategic management model to activities without feedback. For DCT, performance measurement emerges not as an administrative routine but as a micro-foundation of sensing capability itself (Teece, 2007). For RBT, reliable performance information is itself a valuable and rare resource among small firms (Barney, 1991).

Building on Garengo et al. (2005) and Hudson et al. (2001), who characterized SME performance measurement as informal, this study identifies a further condition: nominality, in which indicators are named but not measured. It also bridges the measurement-validity debate and African SME research. Dess and Robinson (1984) validated perceptual measures among managers who knew their figures, the very condition shown here not to hold (Podsakoff et al., 2003; Richard et al., 2009; Wall et al., 2004).

Finally, the study departs from regional studies reporting positive SMP effects (Agwu, 2018; Cherono & Njeru, 2024; Sekere et al., 2023). This departure does not invalidate those studies, but it shows that a positive correlation between two self-rated scales is weak evidence: the same design applied in Kabwe yields null results when the performance scale is examined directly.

POLICY AND RESEARCH IMPLICATIONS

Policy implication: The Ministry of Small and Medium Enterprise Development, the Zambia Development Agency, and the Kabwe Chamber of Commerce and Industry should sequence capacity building by prioritizing record-keeping first and strategy second, and should require baseline measurement to demonstrate the effects of support programmes.

Research implication: Researchers should pair perceptual scales with verifiable anchors, such as turnover bands or transaction records, and should report item distributions and ceiling effects before estimating structural relationships.

CONCLUSION

This study critically appraised the indicators SMEs in Kabwe District use to judge their performance and examined whether those indicators link to the strategic management practices expected to drive them. SMEs judge themselves on six indicators: sales, profitability, customer satisfaction, quality, growth and employee satisfaction. These form a statistically reliable construct ($\alpha = 0.888$; AVE = 0.670), and nearly all owner-managers' report meeting them. However, reported performance is unrelated to environmental scanning, strategy formulation, strategy implementation, and strategy evaluation and control, and respondents cannot quantify it.

Three conclusions follow. First, a reliable scale is not necessarily a valid measure; reliability shows agreement, not accuracy. Second, the link between strategy and success runs through measurement; without measurement, the link can neither be observed nor operate. Third, SME support should build measurement habits before teaching strategy.

Theoretical contribution: The study makes explicit the measured feedback loop on which Resource-Based Theory, Dynamic Capabilities Theory and the strategic management process model depend, and shows that where performance is not measured, the loop is open and strategy cannot be linked to results. Performance measurement is thereby positioned as a micro-foundation of sensing capability in small firms.

Methodological contribution: The study demonstrates that a perceptual performance scale can satisfy conventional tests of reliability and validity while failing a substantiation test, and shows how interviews with the same respondents can be used to apply that test.

Practical contribution: For owner-managers, the study identifies a concrete starting point: three to five written indicators with targets, monthly recording of actual results, a fixed monthly variance review, and simple counts for non-financial outcomes.

Contextual contribution: By focusing on Kabwe, a post-mining district outside Zambia's main commercial centres, the study extends SME strategy research to a setting where small enterprises carry a large share of local economic activity but are rarely studied.

LIMITATIONS AND FUTURE RESEARCH

The cross-sectional design precludes causal inference. Future studies should track firms longitudinally, including those that fail, to establish whether measurement precedes performance improvements and to examine the innovation–performance relationship with appropriate time lags.

The data are single-respondent self-reports without record verification. Future research should validate perceptual ratings against turnover bands, tax records or mobile-money transaction records, and should consider intervention studies testing whether measurement training strengthens the SMP–performance link.

The sample is restricted to registered firms trading for more than five years in one district. Future research should include informal and younger enterprises and compare districts, using access to finance and firm age as moderators.

The performance items are heavily skewed, and CFA fit was achieved after re-specification, with three AVE values below 0.50. Future instruments should use anchored or behaviorally specific response formats that reduce ceiling effects, and should be validated on independent samples.

DECLARATIONS

Acknowledgements: The authors thank the owner-managers who participated in the study and the Kabwe Chamber of Commerce and Industry for facilitating access.

Funding: This research received no specific grant from any funding agency, but was self-sponsored.

Conflict of Interest: The authors declare no conflict of interest in this study

Data Availability: The data supporting the findings are available from the corresponding author on reasonable request.

REFERENCES

1. Agwu, M. E. (2018). Analysis of the impact of strategic management on the business performance of SMEs in Nigeria. *Academy of Strategic Management Journal*, 17(1), 1–20.
2. Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120.
3. Cherono, E. and Njeru, A. (2024). Strategic management practices and performance of small and medium-sized enterprises in Nairobi County, Kenya. *International Journal of Social Science and Humanities Research*, 2(3), 16–30.
4. Chivwindi, C., Hapompwe, C. and Banda, N. (2023). Modelling individual determinants of small and medium enterprises' growth-failure in Lusaka Central and Mwembeshi business areas. *International Journal of Economics, Finance and Management Sciences*, 6(1), 196–204.
5. Chilangwa, I. E., Mwaanga, C., & Siame, M. (2023). The influence of the college environment on the development of entrepreneurial intentions. African Journal of Business Management, 17(1), 13-22. https://doi.org/10.5897/AJBM2022.9391
6. Creswell, J. W. and Plano Clark, V. L. (2018). *Designing and Conducting Mixed Methods Research* (3rd ed.). Thousand Oaks, CA: SAGE Publications.

7. Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297–334.
8. Dess, G. G. and Robinson, R. B. (1984). Measuring organizational performance in the absence of objective measures: The case of the privately-held firm and conglomerate business unit. *Strategic Management Journal*, 5(3), 265–273.
9. Fisher, R. J. (1993). Social desirability bias and the validity of indirect questioning. *Journal of Consumer Research*, 20(2), 303–315.
10. Fornell, C. and Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.
11. Garengo, P., Biazzo, S. and Bititci, U. S. (2005). Performance measurement systems in SMEs: A review for a research agenda. *International Journal of Management Reviews*, 7(1), 25–47.
12. Hair, J. F., Black, W. C., Babin, B. J. and Anderson, R. E. (2019). *Multivariate Data Analysis* (8th ed.). Andover: Cengage Learning.
13. Hayes, A. F. (2022). *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach* (3rd ed.). New York: Guilford Press.
14. Hsieh, H.-F. and Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277–1288.
15. Hu, L. and Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modelling*, 6(1), 1–55.
16. Hudson, M., Smart, A. and Bourne, M. (2001). Theory and practice in SME performance measurement systems. *International Journal of Operations and Production Management*, 21(8), 1096–1115.
17. Kamunge, M. S., Njeru, A. and Tirimba, O. I. (2014). Factors affecting the performance of small and micro enterprises in Limuru Town Market of Kiambu County, Kenya. *International Journal of Scientific and Research Publications*, 4(12), 1–20.
18. Kaplan, R. S. and Norton, D. P. (1992). The balanced scorecard: Measures that drive performance. *Harvard Business Review*, 70(1), 71–79.
19. Meyer, J. W. and Rowan, B. (1977). Institutionalized Organisations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(2), 340–363.
20. Mintzberg, H. and Waters, J. A. (1985). Of strategies, deliberate and emergent. *Strategic Management Journal*, 6(3), 257–272.
21. Mwaanga, C. (2022). *Environmental Factors and the Formation of Students' Entrepreneurial Intentions: Perspectives from Zambia* [Doctoral thesis]. University of South Africa.
22. Ndila, Y. L. (2025). *Strategic Management Practices and their Contribution to the Performance of Small and Medium Enterprises (SMEs) in Kabwe District, Zambia* [Doctoral thesis]. University of Zambia.
23. Neely, A., Gregory, M. and Platts, K. (1995). Performance measurement system design: A literature review and research agenda. *International Journal of Operations and Production Management*, 15(4), 80–116.
24. Nunnally, J. C. and Bernstein, I. H. (1994). *Psychometric Theory* (3rd ed.). New York: McGraw-Hill.
25. Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y. and Podsakoff, N. P. (2003). Common method biases in behavioural research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903.
26. Richard, P. J., Devinney, T. M., Yip, G. S. and Johnson, G. (2009). Measuring organizational performance: Towards methodological best practice. *Journal of Management*, 35(3), 718–804.
27. Rojas-Lema, X., Alfaro-Saiz, J.-J., Rodríguez-Rodríguez, R. and Verdecho, M.-J. (2021). Performance measurement in SMEs: Systematic literature review and research directions. *Total Quality Management and Business Excellence*, 32(15–16), 1803–1828. https://doi.org/10.1080/14783363.2020.1774357
28. Sekere, K., Kiriri, P. and Njenga, K. (2023). Influence of environmental scanning on the performance of small and medium enterprises in Kenya. *The University Journal*, 5(3), 91–102.
29. Srinivasarao, Y., Reddy, T. N. and Babu, N. G. (2020). Small and medium-sized enterprises key performance indicators. *IOSR Journal of Economics and Finance*, 11(4), 1–6.
30. Teece, D. J. (2007). Explicating dynamic capabilities: The nature and micro foundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319–1350.

31. Teece, D. J., Pisano, G. and Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533.
32. Venkatraman, N. and Ramanujam, V. (1986). Measurement of business performance in strategy research: A comparison of approaches. *Academy of Management Review*, 11(4), 801–814.
33. Wall, T. D., Michie, J., Patterson, M., Wood, S. J., Sheehan, M., Clegg, C. W. and West, M. (2004). On the validity of subjective measures of company performance. *Personnel Psychology*, 57(1), 95–118.
34. Wheelen, T. L. and Hunger, J. D. (2012). *Strategic Management and Business Policy: Toward Global Sustainability* (13th ed.). Upper Saddle River, NJ: Pearson.
35. World Bank. (2021). *Zambia Economic Update*. Washington, DC: World Bank.
36. Zulkiffli, S. and Perera, N. (2011). A literature analysis on business performance for SMEs: Subjective or objective measures? In *Proceedings of the 2011 SIBR Conference on Interdisciplinary Business and Economics Research* (pp. 1–9). Society of Interdisciplinary Business Research.