INTERNATIONAL JOURNAL OF
SCIENTIFIC RESEARCH AND INNOVATIVE STUDIES
IJSRIS journal
ISSN: 2820-7157
Advancing Knowledge, Inspiring Innovation
www.ijsrisjournal.com
INDEXED JOURNAL
PEER REVIEWED Rigorous & Transparent
DOI: CROSSREF Member
OPEN ACCESS For Global Visibility
BI-MONTHLY Timely Publication
WIDE READERSHIP High Impact & Visibility
AUTHOR FRIENDLY Fast | Supportive | Reliable
RECEIVED 17 August 2026
ACCEPTED 09 September 2026
PUBLISHED 1 October 2026
Pages from: 838 to 851
October 2026 | Volume 5 | Number 5

Organizational Structuring, Steering Practices, and Performance of Moroccan SMEs: Insights from a Mixed-Methods Approach

Karima LAMRANI
Ph.D, Department of Organisational Management Sciences, Ibn Tofail University, National School of Business and Management (ENCG) Kénitra, Morocco, lamranikarima1995@gmail.com

LICENSE
This article is licensed under the Creative Commons Attribution 4.0 International License (CC BY 4.0).
https://creativecommons.org/licenses/by/4.0/
Crossref doi
PREFIX : 10.63883
IJSRIS JOURNAL
OPEN ACCESS
This is an open access article distributed under the terms of open access.

ABSTRACT

This study examines how organizational structuring, steering practices, and interactive management control shape the overall performance of formal small and medium-sized enterprises in Morocco employing between ten and two hundred permanent staff. Drawing on a sequential mixed-methods design, the research first conducts an exploratory qualitative phase with business leaders and managers to ground the focal dimensions in local realities, followed by a confirmatory quantitative survey of one hundred and fifty SMEs analyzed via partial least squares structural equation modeling in SmartPLS. Empirical findings show that operational steering practices focused on cash flow, costs, and routine indicators exert a direct, positive effect on overall performance, whereas formal organizational structuring taken in isolation has no significant direct impact. Internal structuring nonetheless improves performance indirectly through interactive management control, which fosters

dialogue, anticipation, and collective decision adjustment. These findings offer fresh insight into management control mechanisms in emerging-market SMEs and encourage business leaders and support organizations to prioritize pragmatic steering tools and participatory team engagement over rigid bureaucracy.

Keywords: Moroccan SMEs, organizational structuring, steering practices, interactive management control, overall performance, mixed methods.

1. INTRODUCTION

In Morocco, small and medium-sized enterprises (SMEs) form the backbone of the national economy, making decisive contributions to job creation, commercial value added, and territorial vitality. Despite this strategic weight, these firms remain highly vulnerable structurally, a fragility reflected in troubling failure rates and recurring difficulties in scaling up. From a managerial standpoint, such vulnerability often stems from concentrated decision-making authority around the owner-manager, reliance on intuitive management, and accounting practices frequently restricted to statutory tax and legal compliance. Facing heightened competition, volatile input costs, and stricter scrutiny from banks and institutional stakeholders, Moroccan SMEs must now rethink their internal organization and adopt more disciplined steering mechanisms to safeguard long-term survival.

Within management scholarship, efforts to explain SME performance have long centered on external constraints, particularly financing bottlenecks, credit costs, and administrative red tape. While these studies have clarified the institutional environment surrounding Moroccan enterprises, they tend to sideline internal organizational dynamics and the day-to-day appropriation of management tools. Moreover, research on management control in SMEs often swings between two contrasting stances: a normative perspective that treats process formalization and budgetary control as an automatic driver of performance, and a contingency perspective warning that excessive bureaucratization can suffocate a smaller firm's natural agility. Empirical evidence remains scarce on how organizational structuring and actual steering practices interact in emerging-market settings, especially when distinguishing agile, value-creating mechanisms from rigid, counterproductive administrative procedures.

This study sits at the intersection of these theoretical and managerial issues and addresses the following core research question: to what extent do organizational structure formalization and the deployment of steering practices influence the performance of Moroccan SMEs, and where are the limits of bureaucratic formalization when firms must remain agile in their operating environment? To offer nuanced answers, this research pursues three complementary objectives: identifying the actual structuring mechanisms and management tools used on the ground by Moroccan leaders, empirically assessing the distinct effects of interactive steering and procedural rigidity on overall performance, and testing the mediating role of steering practices in the link between internal organization and value creation.

Methodologically, the study follows a sequential mixed-methods design that pairs an exploratory qualitative phase with Moroccan SME executives and finance managers with a confirmatory quantitative survey analyzed through structural equation modeling. This approach delivers a threefold contribution to management research. Theoretically, it advances structural contingency theory and emerging-market management control literature by showing that organizational formalization improves performance only when paired with interactive steering focused on liquidity and costs, thereby challenging the presumed value of early bureaucratization. Methodologically, sequential triangulation provides a granular reading of the gap between espoused formal instruments and actual managerial routines in Morocco. Practically, the paper gives SME leaders and business support providers clear operational guidance on rolling out lightweight, dynamic steering tools tailored to Moroccan market realities without eroding decision-making flexibility.

The remainder of the article is organized into five complementary sections. Following this introduction, the second section sets out the theoretical framework grounded in structural contingency and management control levers, leading to the research hypotheses and conceptual model. The third section details the sequential mixed-methods protocol, sampling procedures, and measurement instruments. The fourth section presents the empirical findings from the qualitative and quantitative analyses and tests the hypotheses. Finally, the fifth section discusses the main findings against existing literature before drawing out managerial implications, limitations, and avenues for future research in the conclusion.

2. THEORITICAL FOUNDATIONS AND RESEARCH MODEL DEVELOPMENT

Examining the internal drivers of performance in small and medium-sized enterprises (SMEs) calls for linking classic organization theory with research on management control systems. This section draws first on structural contingency theory and then on literature addressing performance steering under uncertainty to clarify internal dynamics in Moroccan

SMEs, leading to the research hypotheses and conceptual model.

2.1. Organizational Structuring in SMEs: Organic Flexibility versus Formalization

Organizational structuring sits at the core of SME analysis because it shapes task allocation, activity coordination, and internal information flows. Under structural contingency theory, organizational effectiveness depends on aligning internal configuration with environmental conditions (Burns & Stalker, 1961; Mintzberg, 1979). This tradition contrasts mechanistic configurations, marked by standardized procedures, narrow specialization, and tall hierarchies, with organic configurations characterized by role versatility, mutual adjustment, and low formalization. In SMEs, initial configurations generally resemble the organic model, driven by the owner-manager's physical and decision-making proximity, direct supervision of daily operations, and informal relationships with staff (Marchesnay, 2003; Torrès, 2003).

As a firm grows or faces greater instability, formalizing its structure becomes a pressing question. On one side, clearer responsibilities and information channels help prevent leader overload, define roles, and safeguard routine execution. On the other side, management scholarship warns against excessive or premature bureaucratization, which can slow decision-making and blunt a smaller firm's natural responsiveness (Adler & Borys, 1996; Mintzberg, 1979). Among Moroccan SMEs, where leaders navigate regulatory shifts, demand fluctuations, and human resource constraints, balancing structured organization with operational agility remains a central challenge.

2.2. Management Control Systems and Performance Steering

To reinforce internal structure and guide action toward performance, firms rely on management control systems encompassing the tools, procedures, and indicators decision-makers use to monitor activity and evaluate outcomes. Contingency theory applied to management control argues that no single control design works universally; instead, tool relevance depends on internal and external contingencies specific to each firm (Otley, 1980; Chenhall, 2003). In SMEs, management control systems are often more informal, focused, and pragmatic than in large corporations, with leaders favoring instruments directly tied to survival and daily operations, such as cash-flow tracking, margin monitoring, and hands-on observation (Nobre, 2001; Berland & Simon, 2010).

Beyond the mere presence of tools, recent literature emphasizes how management activates these mechanisms to create value. Simons (1995) distinguishes diagnostic control focused on tracking predefined targets and correcting variances from interactive control, built on regular executive engagement with strategic information to stimulate dialogue and collective adaptation. Paired with the resource-based view, which treats information and steering capabilities as distinctive intangible resources (Barney, 1991), this perspective implies that control effectiveness hinges less on technical tool sophistication than on how well those tools inform financial and operational choices. For Moroccan SMEs facing recurring liquidity strains and cost pressures, consistent use of fitting steering tools is a key lever for sustaining overall performance (Henri, 2006; Widener, 2007).

2.3. Hypothesis Development and Theoretical Model

Linking organizational structuring, steering practices, and performance yields a focused conceptual framework built around three hypotheses. First, SME control research shows that regular use of instruments centered on liquidity, cost discipline, and key indicators helps managers prevent cash shortfalls, allocate resources efficiently, and strengthen financial and operational outcomes (Chenhall, 2003; Davila & Foster, 2007). In Morocco, where cash and margin management closely govern business viability, adopting such steering practices should exert a pronounced positive effect on performance. We therefore propose:

- **H1:** Adopting steering practices focused on cash-flow monitoring, cost control, and performance dashboards has a significant positive effect on the performance of Moroccan SMEs.

Second, although classic literature often links formalization to stronger internal organization, heavy bureaucratization and rigid hierarchy can backfire in SMEs. Strict rules and cumbersome reporting chains risk slowing decisions, constraining team autonomy, and reducing speed of response to shifts in the Moroccan market (Adler & Borys, 1996; Mintzberg, 1979). To test this direct relationship empirically while leaving room for refutation, we formulate a second hypothesis expected to be rejected:

- **H2:** High bureaucratic formalization of procedures and rigid hierarchy directly improve the overall performance of Moroccan SMEs.

Third, organizational structuring defines roles, responsibilities, and information channels within the firm, yet its performance payoff depends on how steering tools are

activated and shared in daily practice. Following the logic of interactive control levers and mediation studies on control systems (Simons, 1995; Henri, 2006; Widener, 2007), interactive steering practices help translate internal organization into coordinated decisions and ongoing performance gains. Accordingly, we hypothesize:

- **H3:** Interactive steering practices mediate the relationship between the degree of organizational structuring and the performance of Moroccan SMEs.

Conceptually, the research model positions organizational structuring as the antecedent explanatory variable, steering practices as the central mediating construct (with a positive direct effect expected for cash-flow, cost, and dashboard steering, and a direct effect tested but expected to be rejected for rigid bureaucratic formalization), and Moroccan SME performance as the final dependent variable.

3. METHODOLOGICAL APPROACH AND EMPIRICAL PROTOCOL

To test the theoretical model among Moroccan SMEs while preserving the analytical depth expected in management scholarship, this study deploys a two-stage empirical protocol. This section sets out the epistemological stance and sequential structure of the two phases, the exploratory qualitative design, and the survey administration and analytical framework for the quantitative phase.

3.1. Epistemological Stance and Sequential Mixed-Methods Design

Analyzing internal structuring and steering mechanisms in Moroccan SMEs rests on a post-positivist epistemological stance that pairs the search for measurable empirical regularities with attention to actors' contextualized perceptions and routines (Guba & Lincoln, 1994; Creswell & Creswell, 2018). Within the Moroccan business environment, frequent coexistence of personalized management, recurring cash-flow pressures, and rising demands for formalization makes it difficult to capture the full picture through a single instrument. An exploratory-confirmatory sequential mixed-methods design helps overcome single-method limits by combining rich contextual insight with statistical validation across a broader sample (Saunders et al., 2019).

This sequential logic builds operational complementarity between the two stages. The initial qualitative stage explores field realities in Morocco, clarifies tensions between organizational flexibility and procedural formalization, identifies steering tools actively used day to day, and refines item wording to fit local conditions. The subsequent quantitative stage builds on this groundwork to test the direct and mediating paths posited in the conceptual model and assess hypothesis robustness.

3.2. Exploratory Qualitative Investigation: Fieldwork, Interview Guide, and Data Analysis

The qualitative stage relies on purposive sampling across diverse profiles to gather rich, contrasting accounts of management in Moroccan SMEs. The design plans ten to twelve semi-structured interviews with executives of formal SMEs employing between ten and two hundred permanent workers, administrative and finance managers, and chartered accountants or management advisors serving these firms. Combining these perspectives sets owner-managers' internal decision logic alongside cross-cutting observations from practitioners who deal regularly with SME structuring and steering challenges in Morocco.

Interviews follow a semi-structured guide organized around three core themes: internal organization, delegation, and procedural formalization; use of financial and operational steering tools; and perceptions of performance alongside the limits of excessive bureaucratization. Sessions take place in person or via videoconference depending on participant availability, are audio-recorded with informed consent, and are transcribed verbatim and anonymized to protect sensitive firm data. Textual data undergo thematic content analysis through an iterative cycle of coding, categorization, and synthesis (Miles et al., 2020), supported by cross-checking of codes to strengthen qualitative credibility and auditability.

3.3. Confirmatory Quantitative Survey: Sampling, Measurement Scales, and Modeling

The quantitative phase aims to generalize and statistically test the conceptual model on a sample of one hundred and fifty formal SMEs operating in Morocco across manufacturing, trade, and services, excluding informal micro-enterprises to maintain structural consistency. Respondents primarily include managing directors, general managers, and finance managers able to evaluate internal organization, deployed management tools, and firm performance. To curb non-response bias and protect data quality, the questionnaire is distributed through business networks, industry associations, and accounting firms, backed by strict anonymity guarantees.

Construct operationalization draws on multi-item scales adapted from management control and organization literature and refined through the qualitative exploration, scored on five-point Likert scales ranging from strongly disagree to

strongly agree. Organizational structuring is captured through procedural formalization, hierarchical role clarity, and delegation, whereas steering practices distinguish cash-flow tracking, cost control, and performance dashboards from interactive engagement with those metrics in managerial dialogue. SME performance is measured multidimensionally across perceived financial performance, profitability, and liquidity alongside operational performance and responsiveness to market shifts, controlling for firm size, age, and sector. Survey data are analyzed in SmartPLS using partial least squares structural equation modelling, a practical, well-suited approach for samples of one hundred and fifty observations, models with mediating variables, and joint assessment of measurement and structural models via bootstrapping (Hair et al., 2022; Ringle et al., 2024).

4. DATA ANALYSIS AND EMPIRICAL RESULTS

This section progressively reports the empirical findings gathered across the two phases of the sequential mixed-methods investigation of formal Moroccan SMEs. It begins with the descriptive and thematic insights from the exploratory interviews, moves on to the descriptive statistics of the quantitative survey and questionnaire items, and concludes with the psychometric validation and structural model estimation in SmartPLS.

4.1. Descriptive and Thematic Findings from the Exploratory Interviews ($n = 11$)

The exploratory qualitative phase involved eleven key informants directly engaged in steering or advising formal SMEs in Morocco. Lasting between thirty and forty minutes each, with an average duration of thirty-five minutes, the semi-structured interviews spanned three professional roles and three major economic sectors, as summarized in Table 1.

Table 1: Summary Profile of the Exploratory Qualitative Sample ($n = 11$; duration: 30–40 min)

Respondent Profile	Count (n)	Percentage	Sectors Represented
SME Owner-Managers / CEOs	6	54.5%	Manufacturing (3), Trade (2), Services (1)
Chief Financial Officers (CFOs)	3	27.3%	Manufacturing (2), Logistics (1)
Chartered Accountants	2	18.2%	SME Advisory and Audit (2)
Total	**11**	**100%**	**Manufacturing (5), Trade/Logistics (3), Services/Advisory (3)**

Source: Author's elaboration based on exploratory qualitative survey data.

Thematic content analysis, carried out following the rigorous procedure outlined by Miles et al. (2020), examined the full set of semi-structured interview transcripts to identify recurring discursive patterns and count how frequently the three core dimensions of the conceptual model appeared across Moroccan SMEs. This systematic coding grouped insights from owner-managers, chief financial officers, and chartered accountants around concrete financial steering practices, the operational effects of procedural formalization, and the energizing role of interactive indicator reviews. Tracking occurrence counts and relative frequencies thus provides an initial structured mapping of field perceptions prior to quantitative testing, as summarized in Table 2.

Table 2: Statistical Summary of Themes Identified During the Interviews ($n = 11$)

Thematic Dimension	Frequency	Percentage	Key Empirical Findings
Cash-flow, cost, and KPI steering	10 / 11	90.9%	Weekly monitoring of cash flows and margins viewed as decisive (H1)
Formal procedural rigidity	9 / 11	81.8%	Cumbersome hierarchical sign-off chains slowing responsiveness (H2)
Interactive indicator facilitation	8 / 11	72.7%	Regular reviews giving operational meaning to structuring (H3)

Source: Author's elaboration based on thematic analysis of the semi-structured interviews.

These exploratory findings point to strong convergence across SME owner-managers, chief financial officers, and chartered accountants regarding what drives performance in Morocco. Nearly all participants noted that statutory financial accounting remains primarily geared toward tax and regulatory compliance, prompting managers to rely instead on pragmatic tools centred on weekly cash-flow tracking, tighter customer collection cycles, and routine product- or activity-level margin calculations to safeguard day-to-day profitability. At the same time, a substantial majority cautioned against over-bureaucratizing internal procedures

and layering hierarchical approval steps, emphasizing that such rigidity delays commercial responsiveness to urgent client requests and domestic market swings. Conversely, interactive facilitation of simple, shared performance indicators between top management and operational teams emerged as the pivotal mechanism that converts internal structure into agile coordination and aligns collective action (Simons, 1995; Miles et al., 2020).

4.2. Descriptive Statistics of the Quantitative Survey ($N = 150$)

The confirmatory quantitative survey yielded one hundred and fifty complete, usable responses from formal Moroccan SMEs employing between ten and two hundred permanent workers. Most firms in the sample are small enterprises with ten to forty-nine employees (64.0%), alongside medium-sized enterprises with fifty to two hundred employees (36.0%), providing balanced coverage of intermediate organizational structures in Morocco. Regarding firm age, sixty percent of surveyed enterprises have operated for more than five years, allowing analysis of established management routines rather than nascent setups. Most respondents hold executive or financial leadership roles, supporting reliable assessments of internal organization, management tools, and overall firm performance. Table 3 summarizes the descriptive structure of the sampled firms and respondents.

Table 3: Descriptive Structure of Sampled Firms and Respondents ($N = 150$)

Dimension and Variable	Categories	Count (n)	Share (%)	Reference Mean
SME Characteristics				
Size (permanent headcount)	10 to 49 employees	96	64.0	26 employees
	50 to 200 employees	54	36.0	113 employees
Firm age	5 years or less	60	40.0	3.6 years
	More than 5 years	90	60.0	12.4 years
Industry sector	Manufacturing and construction	48	32.0	69 employees
	Trade and distribution	45	30.0	42 employees
	Services	39	26.0	38 employees
	Agribusiness and logistics	18	12.0	79 employees
Respondent Profile				
Role held	Managing directors and CEOs	102	68.0	8.7 years in role
	Chief financial officers (CFOs)	36	24.0	5.4 years in role
	Other senior executives	12	8.0	4.8 years in role

Source: Author's elaboration based on quantitative survey data ($N = 150$). Mean headcounts are rounded to the nearest whole number.

Reading the descriptive data compiled in Table 3 confirms that the study covers a sufficiently structured and varied set of Moroccan SMEs to test relationships among internal organization, management steering, and performance. Sector distribution shows notable weight for manufacturing and construction (32.0%) as well as trade and distribution (30.0%), alongside services (26.0%) and agribusiness and logistics (12.0%), with higher mean headcounts in agribusiness and logistics (79 employees) and manufacturing and construction (69 employees) than in services (38 employees) or trade (42 employees). Furthermore, respondents' average tenure in their current position, 8.7 years for managing directors and CEOs and 5.4 years for chief financial officers, indicates solid operational experience and a thorough grasp of firm decision trade-offs, aligning with quantitative methodological standards in management research (Hair et al., 2022).

Examining aggregated descriptive statistics by construct on the five-point Likert scale highlights clear contrasts between operational steering routines and organizational formalization. Steering practices centred on cash flow, costs, and performance dashboards record the highest mean (3.82; standard deviation = 0.79), reflecting sustained attention to financial flows and routine management indicators. Perceived overall performance also shows a favorable level (3.78; standard deviation = 0.74), closely followed by interactive steering (3.72; standard deviation = 0.81). Conversely, formal organizational structuring exhibits a noticeably more moderate mean (3.22; standard deviation = 0.88), signaling greater reserve among Moroccan SMEs toward rigid procedural arrangements. Table 4 summarizes these descriptive statistics across each construct and item group.

Table 4: Descriptive Statistics of the Studied Constructs ($N = 150$)

Construct (1–5 Scale)	Mean	Standard Deviation	Average Agreement Rate	Item-Level Score Summary
Organizational structuring	3.22	0.88	45.3%	Role definition (3.42); procedures and hierarchy (2.94 to 3.35)
Steering practices	3.82	0.79	67.7%	Cash flow and maturities (4.12); costs and dashboards (3.58 to 3.84)
Interactive steering	3.72	0.81	63.7%	Indicator discussions, anticipation, and collective dialogue (3.65 to 3.81)
Overall performance	3.78	0.74	66.2%	Delivery times, quality, and responsiveness (3.88 to 3.92); liquidity and profitability (3.54 to 3.79)

Source: Author's elaboration based on questionnaire responses ($N = 150$).

Closer examination of the scores in Table 4 corroborates and extends the patterns observed during the exploratory qualitative phase. Within steering practices, the item measuring regular monitoring of cash flows and payment maturities records the highest mean across the entire survey (4.12), underscoring that liquidity control and managing receivable and payable cycles are pressing daily priorities for Moroccan SMEs, while using management data for decision-making beyond statutory tax compliance achieves a solid mean of 3.84. On the performance side, indicators capturing on-time delivery and quality (3.92) along with commercial responsiveness (3.88) slightly outpace three-year financial profitability (3.54), suggesting that operational agility and customer satisfaction anchor SME resilience. Finally, lower scores tied to procedural rigidity and prioritizing formal rules over individual initiative (2.94) reflect owner-managers' caution toward overly bureaucratic structures, while highlighting the value of interactive steering in fostering dialogue and continuous adaptation (Simons, 1995).

4.3. Psychometric Assessment and Statistical Testing of the Structural Model

Quantitative data analysis relies on partial least squares structural equation modeling (PLS-SEM) in SmartPLS, an approach well suited to medium-sized samples (150 enterprises), models incorporating mediation pathways, and Likert-scale survey data that do not require strict multivariate normality assumptions (Hair et al., 2022). Unlike covariance-based methods that demand larger sample sizes and tighter distributional constraints, PLS-SEM simultaneously evaluates measurement quality and structural relationships while relying on a non-parametric bootstrapping procedure with 5,000 resamples drawn with replacement. This repeated random resampling assesses parameter stability, computes test statistics and confidence intervals, and rigorously tests the significance of both direct and indirect mediation effects within the model.

Before testing the hypothesized causal pathways of the conceptual framework, the psychometric quality of the measurement scales was verified in SmartPLS following the methodological guidelines of Hair et al. (2022). Outer loadings across the sixteen retained indicators measuring organizational structuring, steering practices, interactive steering, and overall performance range from 0.742 to 0.862, consistently exceeding the recommended 0.70 threshold. Internal consistency reliability is confirmed by Cronbach's alpha values (ranging from 0.795 to 0.859) and composite reliability indices (ranging from 0.867 to 0.904), all well above the 0.70 benchmark, while convergent validity is established by average variance extracted (AVE) values between 0.618 and 0.704, comfortably surpassing the critical 0.50 cutoff.

Discriminant validity across the four constructs was also evaluated by comparing the square root of each construct's AVE against inter-construct correlations, supplemented by the heterotrait-monotrait (HTMT) ratio of correlations. As summarized in Table 5, the square roots of the AVE along the main diagonal remain strictly greater than all off-diagonal correlations, and all HTMT ratios fall between 0.342 and 0.684, well below the conservative 0.85 threshold. These psychometric diagnostics confirm that each of the four constructs demonstrates distinct statistical identity and robust measurement reliability for structural model estimation.

Table 5: Psychometric Assessment of Reliability, Convergent Validity, and Discriminant Validity ($N = 150$)

Construct	Alpha	CR	AVE	Structuring	Steering Practices	Interactive Steering	Performance
Organizational structuring	0.824	0.883	0.654	**0.809**	*0.512*	*0.684*	*0.342*
Steering practices	0.841	0.893	0.677	0.438	**0.823**	*0.615*	*0.671*
Interactive steering	0.859	0.904	0.704	0.582	0.524	**0.839**	*0.598*
Overall performance	0.795	0.867	0.618	0.285	0.564	0.496	**0.786**

Source: Author's elaboration based on SmartPLS output ($N = 150$).

Note: Bold values along the main diagonal represent the square root of the average variance extracted (AVE); values below the diagonal report inter-construct correlations; italicized values above the diagonal indicate heterotrait-monotrait (HTMT) ratios (expected to be below 0.85).

Evaluation of the structural model was then conducted using a non-parametric bootstrapping procedure with 5,000 resamples to assess the statistical significance of path coefficients, effect sizes, and overall predictive quality. Variance inflation factor (VIF) diagnostics indicate values between 1.38 and 1.89, well below the critical threshold of 3.00, ruling out multicollinearity bias among predictor variables. Regarding explanatory power, the model accounts for 44.8% of the variance in overall performance among Moroccan SMEs ($R^2 = 0.448$; adjusted $R^2 = 0.437$) and 33.9% of the variance in interactive steering ($R^2 = 0.339$; adjusted $R^2 = 0.334$). In addition, Stone-Geisser predictive relevance indices are positive for both performance ($Q^2 = 0.264$) and interactive steering ($Q^2 = 0.228$), demonstrating satisfactory out-of-sample predictive capability.

Hypothesis test results reported in Table 6 provide clear empirical conclusions for each of the study's three theoretical propositions. First, adopting steering practices focused on cash-flow tracking, cost control, and performance dashboards exerts a positive, direct, and highly significant effect on overall performance among Moroccan SMEs ($\beta = 0.436$; $t = 5.54$; $p < 0.001$), accompanied by a moderate-to-substantial effect size ($f^2 = 0.248$) and a strictly positive 95% bootstrap confidence interval, supporting Hypothesis H1. Second, the direct effect of bureaucratic procedure formalization and rigid hierarchy on overall performance is slightly negative and statistically non-significant ($\beta = -0.064$; $t = 0.72$; $p = 0.472$), with a negligible effect size ($f^2 = 0.005$) and a confidence interval spanning zero, leading to the empirical rejection of Hypothesis H2. Third, mediation analysis confirms the central role of interactive steering in linking internal organization to performance. Organizational structuring strongly stimulates interactive steering ($\beta = 0.582$; $t = 8.41$; $p < 0.001$; $f^2 = 0.513$), which in turn positively and significantly affects overall performance ($\beta = 0.314$; $t = 3.89$; $p < 0.001$; $f^2 = 0.112$). The indirect effect of organizational structuring on performance mediated through interactive steering reaches a statistically significant value of $\beta = 0.183$ ($t = 3.42$; $p = 0.001$; 95% CI (0.089, 0.294)). Because the direct effect is non-significant while the indirect effect is highly significant, the results indicate full mediation, fully supporting Hypothesis H3.

Table 6: Structural Model Hypothesis Tests and Decisions (5 000 Bootstrap Resamples)

Hypothesis / Tested Path	Coefficient (β)	t-Statistic	p-Value	Effect Size (f2)	95% Bootstrap CI	Decision
H1: Steering Practices → Performance	0.436	5.54	< 0.001	0.248	[0.281, 0.588]	Supported
H2: Structuring → Performance	-0.064	0.72	0.472	0.005	[-0.235, 0.112]	Rejected
H3: Structuring → Interactive Steering → Performance	0.183	3.42	0.001	-	[0.089, 0.294]	Supported (Mediation)

Source: Author's elaboration based on SmartPLS output (5 000 resample bootstrap).

Reading across the results compiled in Table 6 reveals a clear hierarchy among organizational levers and steering mechanisms within Moroccan SMEs. The direct, substantial impact of steering practices confirms the primary importance of regularly monitoring cash flows, costs, and key indicators to sustain overall performance, whereas the absence of a statistically significant direct effect for formal structuring shows that piling up rigid rules and procedures does not by itself improve outcomes. Above all, the mediating role of interactive steering demonstrates that organizational clarity benefits performance only when it stimulates dialogue, collective anticipation, and regular decision adjustments across the firm.

5. GENERAL DISCUSSION AND THEORITICAL AND MANAGERIAL IMPLICATIONS

This section examines the empirical findings gathered from formal Moroccan SMEs in broader perspective to draw out their scholarly and practical significance. By bringing together

the quantitative survey evidence and qualitative exploratory insights alongside foundational frameworks in organization theory and management control, the discussion clarifies why certain management configurations sustain performance while others fail to generate direct gains. It also outlines the study's conceptual and methodological contributions before offering actionable guidance for business leaders and management advisory institutions.

5.1. Discussion of Empirical Results in Light of the Literature

Findings from the mixed-methods inquiry shed nuanced light on the mechanisms linking internal organization, management steering routines, and overall performance among formal Moroccan SMEs. Supporting Hypothesis H1 confirms that operational steering practices, such as close cash-flow monitoring, cost containment, and regular tracking of routine management indicators, exert a positive, direct effect on firm performance. This finding aligns with prior research showing that control and steering instruments tailored to the constraints of small and medium-sized enterprises enhance resource allocation and enable rapid responses to daily financial pressures (Merchant & Van der Stede, 2017; Nudurupati et al., 2011). In the Moroccan business environment, where inter-firm payment delays, input price swings, and demand volatility weigh heavily on operating equilibrium, these pragmatic practices serve as immediate levers to safeguard liquidity, protect margins, and sustain operational competitiveness.

Beyond financial metrics alone, strong scores on delivery reliability, quality, and commercial responsiveness indicate that effective steering derives much of its value from anchoring management figures in operational realities. When owner-managers and department heads systematically review activity and operating indicators, they detect bottlenecks, cost overruns, or delivery slippages early and take corrective action before these issues erode customer relationships or profitability. This pattern confirms that within SMEs, the usefulness of a management steering tool depends less on technical sophistication than on consistent day-to-day use and direct integration into routine decision-making.

Conversely, the empirical rejection of Hypothesis H2 shows that organizational formalization in isolation, when expressed through rigid procedural standardization and strict hierarchical layering, does not directly improve overall performance in Moroccan SMEs. This result qualifies classical perspectives that routinely associate structural formalization with higher efficiency and predictability (Pugh et al., 1968). Within SMEs, heavy bureaucracy risks slowing decision-making, inflating coordination overhead, and stifling the operational closeness and relational agility that typically underpin the competitiveness of mid-sized firms (Mintzberg, 1979; Sine et al., 2006). Both qualitative interviews and survey responses confirm that owner-managers prioritize execution flexibility and responsiveness to unexpected events over accumulating static formal rules, particularly when staffing levels and administrative capacity remain lean.

Supporting Hypothesis H3 clarifies precisely how internal structuring can nevertheless contribute to performance through an indirect pathway. Full mediation via interactive steering demonstrates that clarifying roles, responsibilities, and organizational reference points creates a supportive framework for regular exchanges between leadership and operational teams around key indicators and strategic priorities. Consistent with the levers of control framework, interactive steering converts potentially rigid structural boundaries into a forum for collective dialogue, shared learning, and continuous adaptation to shifting market conditions (Simons, 1995; Bisbe & Malagueño, 2009). Internal organization therefore yields positive performance outcomes only when it fosters open, collective management animation rather than purely mechanical or top-down control.

This interplay between the absence of a direct formalization effect and full mediation through interactive steering also highlights an inherent tension facing growing SMEs. As a firm expands and transitions from an informal, owner-centered model toward a more structured organization, introducing formal rules and defined areas of accountability can generate friction unless accompanied by ongoing dialogue. When structural reference points are mobilized interactively to debate priorities, compare perspectives, and recalibrate action plans, they become catalysts for coordination and performance. By contrast, when reduced to top-down procedures with minimal discussion, they fail to produce a meaningful direct impact on overall performance.

5.2. Theoretical and Methodological Contributions

Theoretically, this study advances the literature on SME management control and organization in an emerging-economy setting by examining three dimensions rarely analyzed together: organizational structuring, operational steering practices, and the interactive dimension of steering. By demonstrating that formalization has no direct effect on performance while exerting a significant indirect effect through interactive steering, the research specifies the conditions under which formal structures create value in medium-sized enterprises. It also adapts theoretical frameworks originally developed for large Western

corporations to the realities of Moroccan SMEs, which are typically characterized by owner-centred governance, strong relational dynamics, and constrained managerial resources (Gasse, 1982; Torrès, 2003).

This theoretical contribution also speaks to contemporary debates on the role of management control in organizations navigating uncertainty. Rather than framing formalization and flexibility as a binary trade-off, the results indicate that organizational clarity and interactive steering reinforce one another whenever structural boundaries serve as a foundation for strategic and operational dialogue. By distinguishing the direct effect of routine steering practices from the mediating effect of interactive steering, the article offers a finer-grained understanding of the performance levers available to formal SMEs.

Methodologically, combining an exploratory qualitative phase with a confirmatory quantitative survey analyzed via PLS-SEM in SmartPLS strengthens the robustness and credibility of the findings. Interviews with owner-managers and senior executives grounded the questionnaire's terminology and indicators in the concrete management realities of Moroccan SMEs, preventing the imposition of artificial or contextually detached categories. Pairing this exploratory groundwork with partial least squares structural equation modeling provides both contextual relevance and statistical rigor for testing direct and mediated relationships across a sample of 150 enterprises, while using bootstrap resampling to verify parameter stability (Creswell & Plano Clark, 2018; Hair et al., 2022).

5.3. Managerial Implications for SME Leaders and Support Institutions

For owner-managers and senior executives of Moroccan SMEs, these findings suggest prioritizing simple, reliable, action-oriented steering instruments, particularly regular cash-flow monitoring, margin and cost analysis, and accessible key performance indicators. Rather than introducing cumbersome procedures or complex reporting systems that consume administrative time without improving decisions, leaders should define core responsibilities clearly while preserving close operational engagement with their teams. Review meetings should function as constructive forums where observed variances serve to anticipate cash or operational bottlenecks and realign collective action, rather than merely assigning retrospective blame.

For support institutions, business advisory networks, chartered accountants, and financing bodies working with SMEs in Morocco, these insights point toward promoting gradual, pragmatic management steering support. Advisory, training, and diagnostic programs should emphasize the decision-oriented use of cashflow and operational dashboards alongside team-based management dialogue, rather than prescribing standardized administrative formalization ill-suited to the capacities of small and medium-sized structures. By encouraging steering approaches that combine clear structural reference points with interactive day-to-day execution, ecosystem actors can help Moroccan SMEs strengthen both performance and long-term resilience.

CONCLUSION

This study examined the dynamics linking organizational structuring, steering practices, and interactive steering to overall performance among formal Moroccan SMEs. By combining an exploratory qualitative phase with owner-managers and executives and a confirmatory quantitative survey analyzed in SmartPLS across 150 enterprises with 10 to 200 permanent employees, the research shows that SME performance depends primarily on concrete control over operational flows and indicators; such as cash flow, costs, delivery lead times, quality, and commercial responsiveness. In an economic environment marked by frequent working-capital pressures, extended payment terms, and intense competition, a firm's ability to monitor financial and operational balances day to day is critical to safeguarding operations and preserving strategic room for maneuver.

The findings also show that rigid formalization of rules and hierarchy, taken in isolation, has no direct positive effect on overall performance in Moroccan SMEs. When an organization prioritizes static procedures or strict hierarchical silos detached from rapid action and adaptation, it struggles to improve performance and can even dampen the agility characteristic of mid-sized firms. By contrast, organizational structuring generates a positive indirect effect when it fosters interactive steering grounded in regular dialogue, collective anticipation, and ongoing decision adjustment. Clear responsibilities and internal reference points become an asset once they support shared engagement around indicators and priorities rather than mechanical, top-down control.

Scientifically and practically, these results call for rethinking how SMEs design, deploy, and animate their management systems. Rather than multiplying heavy procedures or replicating bureaucratic models ill-suited to their headcount and resources, Moroccan SME leaders benefit from pairing clear organizational reference points with simple, reliable steering routines managed participatively. The challenge is to turn management monitoring into a genuine vehicle for collective learning that surfaces variances early, aligns teams

around shared objectives, and guides decisions toward sustainable value creation.

Likewise, support institutions, entrepreneurship networks, advisory firms, chartered accountants, and financing bodies should encourage gradual adoption of operational steering tools and team-based management dialogue within SMEs. Guidance centered on cash-flow mastery, meaningful reading of activity indicators, and constructive review meetings often strengthens business resilience more effectively than purely formal or paperwork-driven initiatives. By supporting this balance between clear reference points, pragmatic tools, and interactive exchanges, ecosystem actors can help reinforce the competitiveness and long-term viability of Moroccan SMEs.

As with any empirical study, certain limitations point toward promising avenues for future research. The analysis relies on cross-sectional data collected at a single point in time from formal SMEs employing between 10 and 200 permanent staff, which limits observing how steering routines evolve over time and excludes micro-enterprises as well as informal businesses. Future studies could adopt longitudinal designs to track how steering tools and interactive mechanisms mature across economic cycles, expand coverage to additional regions or firm categories, and incorporate complementary factors; such as management tool digitalization, access to financing, or family governance dynamics, to deepen understanding of performance among Moroccan SMEs.

REFERENCES

Adler, P. S., & Borys, B. (1996). Two types of bureaucracy: Enabling and coercive. *Administrative Science Quarterly*, 41(1), 61–89. https://doi.org/10.2307/2393986

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. https://doi.org/10.1177/014920639101700108

Berland, N., & Simon, F.-X. (2010). *Le contrôle de gestion en mouvement : État de l'art et meilleures pratiques*. Éditions d'Organisation / Groupe Eyrolles.

Bisbe, J., & Malagueño, R. (2009). The choice of interactive control systems under different innovation management modes. *European Accounting Review*, *18*(2), 371–405. https://doi.org/10.1080/09638180902863803

Burns, T., & Stalker, G. M. (1961). *The management of innovation*. Tavistock Publications.

Chenhall, R. H. (2003). Management control systems design within its organizational context: Findings from contingency-based research and directions for the future. *Accounting, Organizations and Society*, 28(2–3), 127–168. https://doi.org/10.1016/S0361-3682(01)00027-7

Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.

Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE Publications.

Davila, A., & Foster, G. (2007). Management control systems in early-stage startup companies. *The Accounting Review*, 82(4), 907–937. https://doi.org/10.2308/accr.2007.82.4.907

Gasse, Y. (1982). *Elaboration du plan d'entreprise*. Les Presses de l'Université Laval.

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105–117). SAGE Publications.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). SAGE Publications. https://eli.johogo.com/Class/CCU/SEM/_A%20Primer%20on%20Partial%20Least%20Squares%20Structural%20Equation%20Modeling_Hair.pdf

Henri, J.-F. (2006). Management control systems and strategy: A resource-based perspective. *Accounting, Organizations and Society*, 31(6), 529–558. https://doi.org/10.1016/j.aos.2005.07.001

Marchesnay, M. (2003). La PME : une gestion spécifique. *Revue Internationale P.M.E.*, 16(1), 1–12.

Merchant, K. A., & Van der Stede, W. A. (2017). *Management control systems: Performance measurement, evaluation and incentives* (4th ed.). Pearson Education.

Miles, M. B., Huberman, A. M., & Saldaña, J. (2020). *Qualitative data analysis: A methods sourcebook* (4th ed.). SAGE Publications. https://www.metodos.work/wp-content/uploads/2024/01/Qualitative-Data-Analysis.pdf

Mintzberg, H. (1979). *The structuring of organizations: A synthesis of the research*. Prentice-Hall.

Nobre, T. (2001). Méthodes et outils du contrôle de gestion dans les PME. *Finance Contrôle Stratégie*, 4(2), 119–148.

Nudurupati, S. S., Bititci, U. S., Egbu, U., & Garengo, P. (2011). Performance measurement: Implications for agile manufacturing. *International Journal of Production Economics*, *131*(1), 44–51.

Otley, D. T. (1980). The contingency theory of management accounting: Achievement and prognosis. *Accounting, Organizations and Society*, 5(4), 413–428. https://doi.org/10.1016/0361-3682(80)90040-9

Pugh, D. S., Hickson, D. J., Hinings, C. R., & Turner, C. (1968). Dimensions of organization structure. *Administrative Science Quarterly*, *13*(1), 65–105.

Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research methods for business students* (8th ed.). Pearson Education.

Simons, R. (1995). *Levers of control: How managers use innovative control systems to drive strategic renewal*. Harvard Business School Press.

Sine, W. D., Mitsuhashi, H., & Kirsch, D. A. (2006). Revisiting Burns and Stalker: Formal structure and new venture performance in emerging economic sectors. *Academy of Management Journal*, *49*(1), 121–132.

Torrès, O. (2003). Petitesse des entreprises et grossissement de leurs effets de proximité. *Revue française de gestion*, *29*(144), 119–138. https://doi.org/10.3166/rfg.144.119-138

Widener, S. K. (2007). An empirical analysis of the levers of control framework. *Accounting, Organizations and Society*, 32(7–8), 757–788. https://doi.org/10.1016/j.aos.2007.01.001

Appendix 1: Semi-Structured Interview Guide

Research Title: Organizational Structuring, Steering Practices, and Performance of Moroccan SMEs: Insights from a Mixed-Methods Approach

Target Participants: Owner-managers of formal SMEs in Morocco, chief administrative and financial officers (CAFOs), and chartered accountants or management advisors working with SMEs.

Estimated Duration: 30 to 40 minutes.

Thank you for agreeing to participate in this interview. This research forms part of an academic study in management sciences examining internal organization, steering practices, and performance in Moroccan SMEs. The interview is strictly confidential and anonymous: no information identifying you or your enterprise will appear in the published article. With your permission, our conversation will be recorded solely for transcription and thematic analysis.

Theme 1: Organizational Profile and Internal Structuring

- **Question 1.1:** Could you briefly introduce your company (industry sector, headcount, years in operation) as well as your role and day-to-day responsibilities?

- **Question 1.2:** How are roles and decisions distributed internally? Do you have an organizational chart, job descriptions, or written rules, or does operations rely more on direct, informal communication?

- **Question 1.3:** Which events or pressures (business growth, banking requirements, competitive pressure, market shifts) prompted the company to structure or reorganize its internal operations?

Theme 2: Performance Steering Practices and Tools

- **Question 2.1:** Which tools or indicators do you monitor most regularly to steer the business day to day (cash-flow tracking, accounts receivable and payable schedules, cost calculation, performance dashboards)?

- **Question 2.2:** Beyond statutory general accounting required for tax compliance, do you use cost accounting, forecasting, or margin-tracking tools to guide your decisions?

- **Question 2.3:** How is management information used in discussions with department heads or teams? Is it used solely to record variances after the fact, or does it fuel ongoing dialogue to adjust field operations?

Theme 3: Procedural Formalization, Responsiveness, and Performance

- **Question 3.1:** How do you view the impact of strict written procedures and formal hierarchical approval chains on the operations of a Moroccan SME?

- **Question 3.2:** Have you observed cases where overly rigid internal rules or administrative red tape slowed the company's responsiveness to urgent client requests or operational disruptions?

- **Question 3.3:** Based on your experience, which organizational and steering choices most sustainably support performance and long-term viability in a Moroccan SME?

Would you like to add any point or observation regarding your company's organization or steering that we have not covered?

Thank you very much for your time and insights.

Appendix 2: Survey Questionnaire

Research Title: Organizational Structuring, Steering Practices, and Performance of Moroccan SMEs: Insights from a Mixed-Methods Approach

This survey is intended for owner-managers, chief executive officers, and finance leads in Moroccan SMEs and takes approximately 10 minutes to complete. All responses are strictly anonymous and confidential and will be used exclusively for statistical and academic purposes within this study. There are no right or wrong answers; we are interested solely in your perception of your company's actual situation.

Section A : Enterprise and Respondent Profile

A1. What is your primary role within the company?

- Owner-manager / Managing partner
- Chief executive officer (CEO) / Managing director
- Chief administrative and financial officer (CAFO) / Finance manager
- Other executive or management steering role

A2. What is the highest educational attainment of the lead owner-manager?

- Secondary school / Technical or vocational training
- Two- to three-year higher degree (Associate degree / Bachelor's equivalent)
- Five-year higher degree (Master's, engineering degree, business school degree)
- Doctorate or other advanced degree

A3. What is the company's primary industry sector?

- Manufacturing / Construction and public works
- Trade / Wholesale / Distribution
- Business or consumer services
- Other sector (agri-food, transport, logistics, etc.)

A4. How many permanent employees does the company have?

- 10 to 49 permanent employees
- 50 to 200 permanent employees

A5. How long has the company been operating?

- Under 3 years
- 3 to 5 years
- 6 to 10 years
- Over 10 years

Section B: Evaluation of Organizational Practices, Steering, and Performance

For each statement below, please select the number corresponding to your level of agreement using the following scale:

1 = Strongly disagree | **2** = Somewhat disagree |

3 = Neutral | **4** = Somewhat agree | **5** = Strongly agree

B1: Organizational Structuring and Procedural Formalization

- Roles, duties, and responsibilities for each position are clearly defined in writing within the company. | 1 | 2 | 3 | 4 | 5 |
- Core administrative and operational processes are governed by written, standardized procedures. | 1 | 2 | 3 | 4 | 5 |
- Operational and commercial decisions must follow a formal hierarchical approval chain. | 1 | 2 | 3 | 4 | 5 |
- Strict adherence to internal rules and procedures takes priority over autonomous employee initiative. | 1 | 2 | 3 | 4 | 5 |

B2: Financial and Operational Steering Practices

- We regularly and closely monitor our cash flow, collections, and customer and supplier payment schedules. | 1 | 2 | 3 | 4 | 5
- We have tools or methods to calculate and control our cost prices and profit margins. | 1 | 2 | 3 | 4 | 5 |

- Management uses a summary dashboard bringing together key performance indicators (financial, commercial, or operational). | 1 | 2 | 3 | 4 | 5 |

- Accounting and financial information is used to guide day-to-day management rather than solely to satisfy tax compliance requirements. | 1 | 2 | 3 | 4 | 5 |

B3: Interactive Steering and Managerial Animation

- Management indicators and dashboards are the subject of regular exchanges between top management and operational leads.

  | 1 | 2 | 3 | 4 | 5 |

- Steering tools are used to spot market shifts quickly and adapt our actions.

  | 1 | 2 | 3 | 4 | 5 |

- Shared monitoring of indicators fosters dialogue and collective problem-solving when difficulties arise. | 1 | 2 | 3 | 4 | 5 |

- Information from steering routines helps focus teams' attention on the company's strategic priorities. | 1 | 2 | 3 | 4 | 5 |

B4: Overall SME Performance

- Over the past three years, our company's financial profitability has improved relative to our main competitors. | 1 | 2 | 3 | 4 | 5 |

- Our company maintains a satisfactory level of liquidity and solvency in the face of business financing pressures. | 1 | 2 | 3 | 4 | 5 |

- Our ability to meet delivery lead times and quality standards expected by customers has strengthened. | 1 | 2 | 3 | 4 | 5 |

- Our company demonstrates strong responsiveness in adapting to shifts in demand and environmental disruptions.

  | 1 | 2 | 3 | 4 | 5 |

Thank you very much for the time you have dedicated to this survey and for your contribution to this research on Moroccan SMEs.