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Organizational contingency and hotel quality management

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ABSTRACT

Purpose. This study examines how organizational contingencies shape hotel quality-management modes in an emerging tourism destination. Rather than assuming that formal quality management is universally appropriate, the study asks whether hotel size, organizational affiliation, service scope, strategy, price positioning, clientele,

competitive pressure, technology, and managerial style are associated with different degrees of quality formalization.

Design/methodology/approach. The study draws on a field survey of 24 hotels in Tangier, Morocco. A deductive, quantitative design is combined with exploratory fieldwork and analyzed through partial least squares structural equation modeling (PLS-SEM), complemented by principal component analysis and multivariate grouping. The structural model was assessed using bootstrapping with 5,000

resamples. Measurement quality was examined through internal consistency, convergent validity, discriminant validity, KMO/Bartlett diagnostics, and exploratory component analysis.

Findings. The empirical model identifies a differentiated configuration of quality-management practices. Employee size ($\beta = 0.182$), accommodation capacity ($\beta = 0.191$), turnover ($\beta = 0.129$), organizational affiliation ($\beta = 0.293$), service scope ($\beta = 0.092$), strategy ($\beta = 0.121$), average price ($\beta = 0.138$), and target clientele ($\beta = 0.100$) are positively and significantly associated with quality formalization. Perceived competition ($\beta = -0.008$, $p = .790$) and technology ($\beta = 0.057$, $p = .066$) are not statistically significant direct predictors in the reported model, while managerial style shows a significant negative association ($\beta = -0.136$). Quality-management mode strongly predicts hotel typology ($\beta = 0.737$). Multivariate analysis distinguishes three configurations: formal, hybrid, and informal quality management.

Originality/value. The study contributes to contingency-based quality research by linking organizational context to differentiated quality-management modes in a North African hospitality setting. It also extends service-quality research beyond customer-perception models by examining the organizational architecture through which quality practices are formalized, coordinated, and enacted.

Keywords: hotel quality management; contingency theory; service quality; quality formalization; PLS-SEM; hospitality; organizational context; Morocco; Tangier; typology.

1. Introduction

Quality management in hospitality is frequently discussed as if the principal challenge were the selection of an appropriate set of standards, measurement tools, or customer-oriented practices. This perspective is valuable, but incomplete. Hotel service is delivered through organizational systems in which staffing, capacity, ownership or affiliation, service breadth, strategic positioning, price level, clientele, managerial style, and technology jointly shape how quality can actually be organized. A quality system that is workable in a large internationally affiliated hotel may be difficult to reproduce in a small independent establishment. Conversely, a highly formalized system may coexist with, rather than replace, locally embedded and experience-based practices.

This organizational question is particularly relevant in emerging and rapidly transforming tourism destinations. Morocco has pursued sustained tourism development while its hotel industry has simultaneously faced stronger customer

expectations, international standards, technological change, labor pressures, and repeated external shocks. Tangier offers a particularly useful setting because its hotel market combines international and domestic chains, independent establishments, different star categories, heterogeneous capacities, and diverse market segments. The doctoral research from which this article is derived identifies a central empirical question: to what extent do organizational dimensions determine the modes and practices of hotel service-quality management?

The study is grounded in contingency theory. The core proposition is that there is no universally optimal organizational arrangement; rather, organizational practices should be understood in relation to contextual conditions. Applied to quality management, this implies that formalization, standardization, monitoring, training, corrective action, and customer-oriented adaptation may take different forms depending on the organizational environment. Earlier empirical work in service industries similarly found that quality-management systems are associated with organizational context and that smaller firms may rely on less formal systems while still developing coherent quality practices (Zhao, Yeung, & Lee, 2004).

The article makes three contributions. First, it shifts the analytical focus from service-quality perception alone to the organizational conditions under which quality is managed. Second, it empirically identifies three quality-management configurations—formal, hybrid, and informal—within a single destination. Third, it demonstrates how PLS-SEM and multivariate classification can be combined to connect explanatory relationships with organizational typologies.

The remainder of the article develops the theoretical framework, presents the hypotheses and research design, reports the measurement and structural results, interprets the three quality-management modes, discusses theoretical and managerial implications, and concludes with limitations and avenues for future research.

2. Theoretical Background and Literature Review

2.1. From service quality to quality management

Service quality differs from the quality of a manufactured product because production and consumption are closely intertwined and because the customer participates in the service process. In hospitality, the experience includes tangible and intangible elements: accommodation, cleanliness, reliability, responsiveness, interpersonal interaction, atmosphere, digital interfaces, complaint

handling, and the consistency of the service encounter. Grönroos (1984) emphasized the distinction between technical and functional quality, while the SERVQUAL tradition conceptualized service quality through gaps between expectations and perceptions. These approaches remain influential because they clarify the customer-facing dimensions of quality.

However, customer-perceived quality is an outcome of an underlying organizational process. Standards must be translated into routines; employees must understand expectations; departments must coordinate; deviations must be detected; corrective actions must be implemented; and customer information must circulate through the organization. Quality management therefore refers not only to the final service encounter but also to the organizational mechanisms that make consistent service possible.

The distinction is consequential for hotels. A formal quality system can include documented procedures, quality structures, audits, indicators, training plans, complaint-management standards, information tools, corrective-action processes, certifications, and quality budgets. An informal system may rely more heavily on managerial experience, tacit knowledge, interpersonal coordination, local routines, and immediate adaptation. Between these poles, hybrid arrangements can combine formal standards with substantial flexibility. The empirical issue is therefore not whether one mode exists in absolute terms, but how different organizational configurations combine these mechanisms.

2.2. Contingency theory and quality management

Contingency theory challenges universalistic assumptions about organizational design. Classic work by Lawrence and Lorsch (1967), Burns and Stalker (1961), and Donaldson (2001) emphasizes the fit between organizational arrangements and contextual conditions. In hospitality, a contingency perspective is particularly relevant because service delivery depends on the interaction of strategy, technology, organizational structure, employees, customers, and the service environment. Ishak and Olsen (1990), for example, explicitly proposed a contingency framework for service-delivery systems in hospitality, emphasizing the relationships among strategy, environment, structure, technology, and customer/employee interfaces.

Quality management can consequently be interpreted as an organizational design problem. The level of formalization required to coordinate a 300-room hotel with multiple restaurants and extensive facilities is unlikely to be identical to that required in a small independent hotel. Likewise, a chain

hotel may inherit standards and monitoring routines from its parent organization, whereas an independent hotel may depend more on owner-manager oversight and employee discretion. Such differences do not automatically imply differences in service quality; they imply differences in the mechanisms through which quality is organized.

This article therefore adopts a fit-oriented interpretation of quality management. Formalization is treated as an organizational response that may increase with complexity, affiliation, strategic requirements, and market positioning. At the same time, flexibility and local adaptation remain relevant, especially in smaller and independent establishments. The resulting typology is not a normative ranking. It is an empirical classification of different organizational logics.

2.3. Research gap

Three gaps motivate the study. First, a substantial part of service-quality research focuses on customer evaluations, while comparatively less attention is paid to the organizational architecture behind quality practices. Second, contingency-based quality research has demonstrated the importance of organizational context in service industries, but evidence from Moroccan hospitality remains limited. Third, hotel studies often compare establishments by star category or performance while paying less attention to the coexistence of formal, hybrid, and informal quality-management logics within the same destination.

The present study addresses these gaps by examining 24 hotels in Tangier and integrating two analytical levels. At the explanatory level, PLS-SEM estimates relationships between organizational variables and quality formalization. At the configurational level, principal component analysis and multivariate grouping identify distinct hotel profiles. This combination makes it possible to ask both 'which organizational conditions are associated with formalization?' and 'what configurations of hotels emerge from these relationships?'

Recent hospitality scholarship reinforces the value of moving from universal prescriptions toward context-sensitive explanations. For example, contemporary contingency research in hospitality has examined how organizational practices adapt to uncertainty and changing operating conditions, showing that contextual conditions can alter the design and implementation of management practices. This stream is important for the present study because it positions contingency theory not as a generic statement that 'context matters', but as a mechanism linking organizational conditions to differentiated managerial arrangements.

2.4. Fit logic and boundary conditions

The conceptual model is deliberately framed as a set of associations rather than a deterministic theory of hotel quality. Contingency theory suggests that organizational arrangements should be understood in relation to environmental and structural conditions. In this study, formalization is the principal organizational mechanism through which several contingencies are examined. The model therefore asks whether differences in organizational scale, capacity, affiliation, strategic orientation, price positioning, clientele and related characteristics are systematically associated with differences in formalization or quality-management orientation.

Three boundary conditions should be made explicit. First, the analysis concerns hotels in Tangier and should not be generalized statistically to the Moroccan hotel sector as a whole. Second, the data are cross-sectional, so significant path coefficients should be interpreted as empirical associations within the observed model rather than definitive causal effects. Third, the three-mode typology is configurational and descriptive: ‘formal’, ‘hybrid’ and ‘informal’ identify organizational patterns, not performance rankings. These boundaries strengthen rather than weaken the theoretical contribution because they specify where the contingency argument is intended to apply.

The present research also connects with recent work on internal service quality. Hotel service quality depends not only on the customer-facing encounter but also on management systems, training, communication, collaboration and leadership. A contingency lens adds a further question: under which organizational conditions are these mechanisms formalized, integrated or left largely tacit? The distinction matters in hotels because the same quality objective may be implemented through standardized routines in one establishment and through direct supervision and experiential knowledge in another.

This positioning leads to a more precise theoretical claim. The study does not propose that formalization causes superior hotel performance, nor does it rank formal, hybrid and informal modes. Instead, it proposes that quality-management architecture is an organizational response whose form is associated with structural, strategic and market contingencies. The empirical contribution is therefore one of contextual differentiation and configuration rather than universal prescription. This boundary is especially important given the cross-sectional design and the small organizational sample.

3. Conceptual Model and Hypotheses

The conceptual model treats quality formalization as a central organizational mechanism. The independent variables are employee size, accommodation capacity, turnover, organizational affiliation/status, service scope, strategy, average price, clientele, perceived competition, technology, and managerial style. Hotel category is recognized as an important contextual descriptor but was not directly tested in the structural hypothesis set reported in the thesis. The final endogenous relationship connects quality-management mode to hotel typology.

The theoretical logic is straightforward. Larger organizations face greater coordination demands; greater capacity and service scope increase operational complexity; organizational affiliation can impose standardized procedures; strategy and price positioning shape service expectations; clientele can alter the required service architecture; and managerial style can shape how quality is interpreted and enacted. Competition and technology are expected to matter, but their effects are treated as empirical questions rather than assumptions.

Hypothesis	Proposition
H1	Employee size is positively associated with quality formalization.
H2	Accommodation capacity is positively associated with quality formalization.
H3	Turnover is positively associated with quality formalization.
H4	Hotel category influences the quality-management mode.
H5	Organizational affiliation/status is positively associated with quality formalization.
H6	Service scope is positively associated with quality formalization.
H7	Hotel strategy is associated with quality formalization.

H8	Average room price is positively associated with quality formalization.
H9	Target clientele is associated with quality-management practices.
H10	Perceived competitive pressure is positively associated with quality formalization.
H11	Technology integration is positively associated with quality-management practices.
H12	Managerial style/culture is associated with quality orientation.
H13	Quality-management mode is associated with hotel typology.

4. Methodology

4.1. Research design and setting

The research adopts a positivist, deductive orientation and a quantitative explanatory design. The empirical setting is Tangier, a major tourism and economic center in northern Morocco. The doctoral study selected Tangier because of its heterogeneous hotel structure and the coexistence of international chains, other affiliated establishments, and independent hotels. The fieldwork was conducted in 2025.

The analyzed sample comprises 24 hotels. The sample includes 10 five-star hotels (41.66%), seven four-star hotels (29.17%), and seven three-star hotels (29.17%). Capacity is also heterogeneous: eight hotels have 100–150 rooms, four have more than 300, four have 51–99, four have fewer than 50, three have 201–300, and one has 151–200 rooms. This heterogeneity is analytically useful because contingency theory requires variation in organizational conditions.

Sample characteristic	Category	n	%
Star category	5 stars	10	41.66
	4 stars	7	29.17
	3 stars	7	29.17
Accommodation capacity	100–150 rooms	8	33.33
	More than 300	4	16.67
	51–99	4	16.67
	Less than 50	4	16.67
	201–300	3	12.50
	151–200	1	4.17

4.2. Data collection and measurement

The research instrument was developed from the theoretical review and exploratory work. The questionnaire operationalized organizational characteristics and quality-management constructs through multiple indicators. The formalization construct includes, among other dimensions, planned quality and service training, use of information and communication tools, and standardized customer-service and complaint processes. The quality-management-mode construct captures daily application of procedures, internal audits, monthly indicators, documented corrective actions, the balance between improvisation and standards, deviations from procedures, integration of quality objectives into individual objectives, and digital tools supporting standards.

The typology construct includes indicators associated with upper-end/luxury positioning, differentiated equipment and services, above-market price, and high personalization. Additional constructs represent organizational characteristics such as employee size, capacity, turnover, affiliation, service scope, strategy, price, clientele, competition, technology, and managerial style.

The empirical analysis reported in the doctoral research was conducted with PLS-SEM and included 5,000 bootstrap resamples. This approach is appropriate for complex explanatory models and is commonly used where prediction, non-normality, formative or higher-order structures, or limited samples are relevant. Current methodological guidance emphasizes assessment of measurement reliability and validity, structural paths, R^2 , effect sizes, collinearity, and out-of-sample predictive assessment where available (Hair & Alamer, 2022; Shmueli et al., 2019). The present article reports the statistics actually available in the source study and does not invent unreported predictive metrics.

4.3. Measurement model assessment

The measurement model shows strong internal consistency in the reported analysis. Composite reliability ranges from 0.811 to 0.951 for the multi-item constructs, with formalization at 0.951 and quality-management mode at 0.941. The single-item price measure yields a composite reliability of 1.000, but this value is not substantively interpretable as a conventional internal-consistency statistic and should be treated as a measurement-design limitation.

Construct	Composite reliability (CR)	AVE
Employee size	0.884	—
Capacity	0.867	—
Turnover	0.900	—
Affiliation	0.909	—
Services	0.894	—
Strategy	0.891	—
Price	1.000*	—
Clientele	0.910	—
Competition	0.882	—

Technology	0.811	—
Managerial style	0.916	—
Formalization	0.951	0.685
Quality-management mode	0.941	0.667
Typology	0.899	0.692

*The source study explicitly notes that the price construct is based on a single item and that $CR=1.000$ should not be interpreted as ordinary internal-consistency reliability.

The reported global KMO is 0.852 and Bartlett's test is highly significant ($p < .001$), supporting factorability. For the principal quality constructs, the reported AVE values exceed the conventional .50 threshold. The source study also reports HTMT values below .85 and satisfactory Fornell–Larcker evidence. These results support the use of the measurement model for the structural analysis, while the small sample and single-item price measure remain important qualifications.

4.4. Analytical strategy

The structural model was estimated using PLS-SEM. Significance was assessed through bootstrapping with 5,000 resamples. The analysis considered standardized path coefficients (β), t-values, p-values, confidence intervals, R^2 , f^2 , Q^2 , and model diagnostics. The study also employed principal component analysis to identify the dominant dimensions of organizational structure and quality management. In the typological phase, 24 hotels were positioned in a reduced factor space and grouped into three configurations.

The use of PLS-SEM should be interpreted carefully because the sample is small. The results are most appropriately treated as evidence within the studied destination rather than as statistically representative estimates of the entire Moroccan hotel population. This distinction is important for a high-impact journal because statistical significance in a small, purposive field sample does not by itself establish broad external validity.

4.5. Methodological safeguards and reporting discipline

The analytical strategy follows a two-level logic. First, PLS-SEM is used to estimate the structural relationships specified in the conceptual model. Second, principal component analysis and multivariate grouping are used to identify quality-management configurations. Keeping these two levels conceptually distinct is important: the structural model evaluates hypothesized relationships among variables, whereas the typology describes patterns of co-occurrence across hotels.

The measurement evidence reported in the doctoral study is strong at the level of internal consistency and convergent validity. Cronbach's alpha and composite reliability are high for formalization, quality-management mode and typology, while AVE values exceed the conventional .50 threshold. The thesis also reports satisfactory HTMT and Fornell–Larcker evidence. However, because the present manuscript is intended for a high-impact journal, these results should be complemented before submission by a complete item-level table, construct correlations, exact HTMT values, variance-inflation diagnostics and confidence intervals obtained from the original PLS-SEM run.

The sample size of 24 hotels requires particular interpretive restraint. PLS-SEM can be useful for complex exploratory and predictive models, but a small organizational sample limits statistical precision and external validity. Accordingly, the manuscript does not present the coefficients as population estimates for Moroccan hotels. The reported paths are treated as evidence within the observed Tangier sample and as a basis for theory refinement and replication with larger multi-destination samples.

The study also contains a single-item price indicator. A single-item construct can be legitimate when the underlying attribute is narrowly defined, but its reliability cannot be evaluated through internal-consistency coefficients in the same way as a multi-item latent construct. The revised manuscript therefore treats the reported price relationship as an observed indicator association and recommends multi-item operationalization in future studies.

Finally, the source thesis does not provide the complete PLSpredict output, exact R^2 values for all endogenous constructs, or a full collinearity/robustness table. These are not reconstructed here. Before journal submission, the original dataset should be rerun using the final measurement specification and the target journal's preferred software/reporting conventions. This is a methodological requirement, not a cosmetic editorial adjustment.

4.6. A contingency view of formalization, flexibility, and service enactment

A useful distinction in the present study is between the existence of quality practices and the degree to which those practices are organizationally formalized. Formalization refers to the extent to which expectations, responsibilities, procedures, monitoring mechanisms, and corrective routines are codified and embedded in organizational systems. It should not be equated with quality performance itself. A hotel can provide a reliable service through a highly formal system, but it can also achieve reliability through experienced employees, close managerial supervision, and stable routines that remain only partly documented. This distinction is central to the contingency argument because it prevents the analysis from assuming that formalization is an end in itself.

The service setting makes this distinction particularly important. In hotels, quality is produced through repeated interactions among front-office employees, housekeeping, food and beverage operations, maintenance, reservations, management, and customers. Some dimensions of the service can be standardized relatively easily, whereas others depend on judgment and interpersonal adaptation. A complaint-handling protocol, for example, may specify escalation steps and response times, while the manner in which an employee restores trust with a dissatisfied guest may require discretion. Quality architecture therefore involves a combination of codification and situated action rather than a simple continuum from 'poor' to 'excellent' management.

This interpretation also clarifies the role of hybrid systems. Hybridization is not treated as an intermediate score between two extremes. It is a distinct organizational configuration in which formal controls coexist with discretionary practices. Such an arrangement may be particularly relevant where hotels face simultaneous pressures for consistency and personalization. Chain affiliation can increase standardization, for example, while local clientele and service encounters require adaptation. The hybrid category consequently captures organizational ambidexterity at the level of quality management: managers attempt to preserve minimum standards while leaving room for contextual judgment.

The contingency perspective further suggests that organizational complexity may alter the costs and benefits of formalization. As the number of rooms, employees, departments, services, and coordination interfaces increases, reliance on tacit knowledge alone may become more difficult. Written procedures, indicators, training systems, audits, and designated quality responsibilities can reduce coordination

ambiguity. Yet excessive formalization may also create rigidity, particularly where service recovery and personalization are important. The theoretical implication is therefore not that complexity mechanically produces better quality, but that complexity changes the organizational problem that quality management must solve.

4.7. Alignment between hypotheses, constructs, and analytical levels

The hypothesis structure was retained from the doctoral research but clarified for the journal manuscript. H1–H3 concern structural scale and resource variables: employee size, accommodation capacity, and turnover. H4 concerns hotel category as a contextual descriptor. H5 addresses organizational affiliation/status, while H6 and H7 concern service scope and strategy. H8 concerns price positioning, H9 clientele, H10 competition, H11 technology, and H12 managerial style. H13 is configurational: it proposes that different hotel types correspond to different quality-management modes. This last proposition is conceptually different from the first twelve because it is examined through multivariate classification rather than interpreted as a single linear causal path.

This distinction is important for avoiding an overextension of the structural equation model. A significant path coefficient answers a question about the association between a predictor and an endogenous construct under the specified model. It does not by itself identify a hotel as belonging to a particular organizational type. Conversely, a cluster or typology does not establish that one variable cause another. The two analytical stages therefore serve complementary purposes. PLS-SEM addresses the explanatory logic of the model, whereas PCA and multivariate grouping address heterogeneity and configuration.

The small organizational sample also affects how the analytical strategy should be read. The objective is not to claim population-level precision for the Moroccan hotel industry. Instead, the analysis provides a structured empirical examination of variation within Tangier. The value of the design lies in linking theoretical propositions to observable organizational differences and in generating a testable framework for subsequent studies using larger samples. This is especially relevant to contingency theory, where replication across contexts is necessary to determine whether an observed fit relationship is destination-specific or more general.

5. Results

5.1. Structural relationships

Hyp.	Structural path	β	t	p	Decision
H1	Employee size → Formalization	0.182	4.811	<.001	Supported
H2	Capacity → Formalization	0.191	5.161	<.001	Supported
H3	Turnover → Formalization	0.129	3.283	.002	Supported
H4	Category → Quality-management mode	—	—	—	Not directly tested
H5	Affiliation/status → Formalization	0.293	7.033	<.001	Supported
H6	Service scope → Formalization	0.092	2.518	.010	Supported
H7	Strategy → Formalization	0.121	3.535	<.001	Supported
H8	Average price → Formalization	0.138	3.637	<.001	Supported
H9	Clientele → Quality management	0.100	2.651	.010	Supported
H10	Competition → Formalization	−0.008	−0.251	.790	Not supported
H11	Technology → Quality	0.057	1.720	.066	Not supported
H12	Managerial style → Quality orientation	−0.136	−3.548	.002	Supported, negative
H13	Quality-management mode → Typology	0.737	15.135	<.001	Supported

The strongest direct relationship reported in the model is organizational affiliation/status → quality formalization ($\beta = 0.293$, $t = 7.033$, $p < .001$). This result is consistent with the idea that chain or affiliated hotels operate within more

standardized organizational architectures. Employee size and accommodation capacity also display positive relationships with formalization, with $\beta = 0.182$ and $\beta = 0.191$, respectively. These findings support the coordination argument of contingency theory: as organizational scale and operating complexity increase, quality processes become more structured.

Turnover, strategy, average price, service scope, and clientele also show statistically significant positive relationships, although their standardized coefficients are smaller. These results suggest that formalization is not determined by a single structural variable. Instead, it emerges from a bundle of organizational and market conditions.

Two expected relationships are not supported. Perceived competitive pressure is not significantly associated with formalization ($\beta = -0.008$, $p = .790$). Technology also fails to reach the conventional 5% significance level ($\beta = 0.057$, $p = .066$). These findings are theoretically informative because they indicate that technological availability or perceived rivalry may not automatically translate into formal quality systems. Technology can support quality practices without necessarily determining their organizational formalization.

Managerial style shows a statistically significant negative association ($\beta = -0.136$, $p = .002$). Rather than interpreting this as evidence that one management style is intrinsically superior, the result suggests that more managerial styles characterized by flexibility, discretion, or less procedural orientation may be associated with lower formalization. The finding is compatible with the coexistence of formal and informal quality logics.

5.2. Effect sizes and explanatory interpretation

The reported f^2 analysis identifies organizational affiliation as the most consequential predictor of formalization among the variables considered, with $f^2 = 0.341$. Capacity ($f^2 = 0.162$) and employee size ($f^2 = 0.145$) have moderate effects. Turnover, strategy, price, clientele, and service scope have smaller but non-negligible effects. Competition is essentially zero ($f^2 \approx 0.000$), while technology is very small ($f^2 = 0.016$).

Predictor	f^2 reported in source	Interpretive role
Affiliation/status	0.341	Largest contribution to formalization
Capacity	0.162	Moderate contribution
Employee size	0.145	Moderate contribution
Turnover	Small	Limited contribution
Strategy	≈ 0.048	Small contribution
Price	≈ 0.048	Small contribution
Clientele	≈ 0.048	Small contribution
Service scope	Small	Limited contribution
Competition	0.0003	Negligible
Technology	0.016	Very small

The pattern reinforces the central contingency argument. Structural variables directly linked to coordination and organizational integration—especially affiliation, capacity, and employee size—appear more closely related to formalization than contextual variables such as perceived competition. This is consistent with prior evidence that organizational context can shape the development of quality-management systems in service firms (Zhao et al., 2004).

5.3. Quality of the measurement model

The reported measurement results are favorable. Formalization has $CR = 0.951$ and $AVE = 0.685$; quality-management mode has $CR = 0.941$ and $AVE = 0.667$; typology has $CR = 0.899$ and $AVE = 0.692$. The source study reports high item loadings, acceptable-to-high Cronbach's alpha values, and discriminant validity according to both Fornell–Larcker and HTMT criteria. The global KMO of 0.852 and significant Bartlett test further support the exploratory factor structure.

From a methodological perspective, however, the article deliberately avoids treating these statistics as proof of causal validity. PLS-SEM path coefficients are model-dependent associations. The cross-sectional design cannot establish temporal precedence, and the small sample limits the stability and generalizability of the estimates. These limitations are addressed explicitly in the discussion.

5.4. Typology of hotel quality-management modes

The second analytical stage identifies three quality-management configurations among the 24 hotels. Principal component analysis indicates a first component strongly associated with capacity, service scope, formalization, and typology. The first component explains 69.38% of variance, while the second explains 8.43%. The second dimension is more strongly associated with clientele, competition, technology, and managerial style.

Dimension	PC1	PC2
Capacity	0.83	-0.06
Service scope	0.77	-0.08
Formalization	0.74	-0.08
Typology	0.74	-0.03
Clientele	-0.63	0.47
Competition	0.06	0.60
Technology	-0.05	0.58
Managerial style	0.20	0.55
Quality-management mode	0.61	-0.39
Strategy	0.39	-0.41

The resulting classification distinguishes three configurations. The formal mode is characterized by structured quality procedures, standards, quality structures, training, audits, indicators, and stronger integration of quality into

organizational routines. The hybrid mode combines formal mechanisms with flexible, experience-oriented and context-sensitive practices. The informal mode relies more strongly on tacit knowledge, managerial experience, interpersonal coordination, and adaptive routines, with comparatively limited formal documentation.

5.5. Integrated interpretation of the empirical pattern

Taken together, the structural results and the typological analysis indicate that hotel quality management in Tangier is differentiated rather than uniform. The largest reported structural association is organizational affiliation/status ($\beta = 0.293$; $p < .001$), followed by accommodation capacity ($\beta = 0.191$; $p < .001$) and employee size ($\beta = 0.182$; $p < .001$). These relationships are consistent with the idea that coordination requirements and externally embedded organizational routines shape the degree to which quality practices become formalized.

The remaining significant associations add nuance. Turnover, service scope, strategy and average price are positively associated with formalization, while clientele is positively associated with the quality-management construct. Competition does not show a statistically significant relationship in the reported model, and technology is positive but does not reach the .05 threshold. Managerial style shows a statistically significant negative coefficient with quality orientation. These findings should not be interpreted as evidence that competition or technology are irrelevant to quality; rather, within this model and sample, their direct associations are weaker or statistically uncertain relative to the organizational variables that show clearer relationships.

The typology provides a second lens. The first principal component explains 69.38% of the variance and is strongly associated with capacity, service scope, formalization and the overall typology construct. The second component explains 8.43% and is more closely associated with competition, technology and managerial style. The resulting formal, hybrid and informal configurations therefore reflect combinations of organizational mechanisms rather than a one-dimensional quality scale. The hybrid mode is analytically important because it suggests that standardization and contextual adaptation can coexist.

Mode	Core organizational logic	Typical quality mechanisms
Formal	High structural differentiation and formal coordination	Written procedures; standards; audits; indicators; training; complaint standardization; quality structures
Hybrid	Combination of formal control and local adaptation	Selected procedures and indicators combined with discretion, personalization and contextual adaptation
Informal	Experience-based coordination and flexible routines	Tacit knowledge; direct supervision; interpersonal control; improvisation; limited documentation

5.6. Integrated interpretation and boundary conditions of the results

The structural findings should be interpreted as a coherent pattern rather than as a ranking of individual coefficients. Organizational affiliation/status has the largest reported positive association with formalization ($\beta = 0.293$; $p < .001$), followed by accommodation capacity ($\beta = 0.191$; $p < .001$) and employee size ($\beta = 0.182$; $p < .001$). These results are consistent with an organizational-complexity interpretation: hotels embedded in larger or more standardized organizational systems may require more explicit routines to coordinate service delivery. The result concerning affiliation is especially relevant because chain membership can transmit standardized procedures, reporting requirements, training systems, and quality-control routines beyond what an individual hotel might develop independently.

The positive associations involving turnover, service scope, strategy, and average price add a second layer to the interpretation. These variables may represent the economic and strategic consequences of serving more demanding or differentiated markets, where consistency and service design become more visible organizational concerns. The present evidence does not establish the direction of every underlying mechanism, however. For example, higher prices may accompany more formal quality systems, but the cross-sectional model cannot determine whether formalization supports price positioning, whether price positioning stimulates formalization, or whether both reflect a third organizational characteristic.

The non-significant results are equally informative. Perceived competition does not display a significant direct association in the reported model ($\beta = -0.008$; $p = .790$), and technology is positive but does not meet the conventional .05 threshold ($\beta = 0.057$; $p = .066$). These findings caution against assuming that environmental pressure or digitalization automatically produces a more formal quality architecture. Technology may be embedded in operations without becoming a quality-management mechanism, while competition may influence quality through indirect strategic or market mechanisms not captured by the present specification.

The negative coefficient for managerial style should also be interpreted cautiously. It should not be read as evidence that a particular management culture is inherently detrimental to quality. The construct captures a managerial orientation within a specific measurement and model context, and the observed association may reflect the coexistence of more formal systems with particular styles of control or participation. A more appropriate interpretation is that managerial style appears to differentiate the way quality is organized in the observed sample and deserves further investigation using richer measures and larger samples.

The typological findings complement the structural model. PCA shows that PC1 explains 69.38% of the variance and is strongly associated with capacity, service scope, formalization, and typology, while PC2 explains 8.43% and gives greater weight to clientele, competition, technology, and managerial style. The resulting formal, hybrid, and informal configurations should therefore be understood as patterns in a multidimensional space. They are not three performance levels and should not be interpreted as a claim that every hotel should move toward the formal group.

6. Discussion

6.1. Theoretical interpretation

The findings support a contingency interpretation of hotel quality management. The central result is not that formalization is universally desirable, but that formalization varies systematically with organizational context. Organizational affiliation, scale, capacity, service scope, strategic orientation, price positioning, and clientele are all associated with quality formalization. This pattern is consistent with the basic contingency proposition that organizational arrangements reflect the conditions under which work is coordinated.

The particularly strong affiliation effect deserves attention. Affiliation can provide hotels with pre-existing standards,

operating procedures, training systems, brand requirements, performance indicators, and reporting structures. Formalization may therefore be partly embedded in the governance architecture of the organization rather than independently chosen by the hotel manager. This interpretation also helps explain why small independent hotels may develop quality through less formal mechanisms.

The findings are consistent with the broader service-quality taxonomy reported by Zhao et al. (2004), who identified multiple quality-management patterns and demonstrated that organizational context was associated with the type of quality system adopted. The present study extends that logic into hospitality by identifying three destination-specific configurations. The terminology differs from Zhao et al.'s taxonomy, but the underlying principle is comparable: service firms can organize quality through different combinations of formal systems and adaptive practices.

The insignificant competition effect is also theoretically useful. A competitive environment does not necessarily produce formalization if hotels respond to competition through pricing, personalization, relationships, reputation, or other mechanisms. In other words, market pressure is filtered through organizational choices. The result therefore cautions against assuming a direct competition-to-formalization pathway.

The technology result deserves similar caution. The reported coefficient is positive but not significant at $p < .05$. Technology may facilitate quality management, but adoption alone does not ensure formalization. A PMS, digital communication tool, or application can support either a formal quality system or an informal managerial process. What matters may be how technology is embedded in routines, governance, training, and measurement. Recent PLS-SEM guidance also emphasizes the distinction between explanatory paths and predictive performance, reinforcing the need not to overstate individual coefficients.

Finally, the three-mode typology supports a configurational interpretation. Hotels are not simply distributed on a single continuum from 'low' to 'high' quality. They combine different mechanisms. The hybrid configuration is especially important because it illustrates that formalization and flexibility are not mutually exclusive. This insight is relevant to hospitality, where standardization must coexist with personalized service encounters.

6.2. Comparison with service-quality research

Traditional service-quality models are useful for understanding what customers evaluate, but they provide a limited explanation of why hotels organize quality differently. The present study complements customer-oriented frameworks by introducing organizational contingencies. The distinction is analytically important: two hotels can pursue comparable customer-service objectives while using different organizational architectures to achieve them.

The findings also resonate with research emphasizing internal service quality. Studies of hotels have shown that management systems, training, communication, collaboration, and leadership can influence internal service quality and employee service orientation. The present evidence places these mechanisms inside a broader contingency framework: organizational characteristics condition the extent to which quality systems are formalized and integrated.

The contribution is therefore integrative rather than substitutive. SERVQUAL and related approaches can help identify dimensions of service quality; contingency theory can explain why the organizational mechanisms supporting those dimensions differ across hotels. Together, these perspectives provide a richer account of quality management in heterogeneous hospitality markets.

6.3. Theoretical contribution: from contingency factors to quality-management configurations

The principal theoretical contribution is to connect contingency theory with a configurational view of hotel quality management. Prior service-quality approaches often begin with the dimensions through which customers evaluate service. The present study begins one step earlier: it examines the organizational conditions under which a hotel constructs, coordinates and formalizes its quality practices. This shift changes the unit of explanation from the customer perception alone to the organizational architecture that supports service delivery.

A second contribution concerns the role of affiliation. The relatively large effect size associated with affiliation/status suggests that quality-management formalization may be partly institutionalized through organizational networks. In affiliated hotels, procedures, training, audit routines, reporting requirements and brand standards may exist before local managers design their own quality systems. This mechanism complements structural explanations based only on size and

capacity and suggests that inter-organizational governance is an important contingency in hospitality quality research.

A third contribution is the identification of a hybrid configuration. A binary distinction between formal and informal quality systems can obscure how hotels actually operate. Hybrid organizations may combine standardized core processes with discretion at the service interface. This configuration is theoretically compatible with the nature of hospitality work, where reliability requires consistency while guest experience often requires adaptation. The finding does not establish that hybridization produces better performance; it identifies hybridization as an empirically relevant organizational form.

6.4. Managerial implications

The findings suggest that hotel managers should diagnose organizational conditions before selecting quality-management instruments. Large or highly affiliated establishments may benefit from stronger documentation, internal auditing, indicator systems, structured training, and standardized complaint processes because their coordination requirements are greater. Independent hotels may require a different architecture, emphasize clear core standards while preserve managerial and employee discretion.

For hybrid hotels, the practical challenge is integration. Formal standards should define non-negotiable service requirements, while employees retain discretion where personalization creates value. This can be supported through a limited set of critical quality indicators, regular feedback loops, complaint-learning routines, and targeted training rather than excessive proceduralization.

The strong affiliation effect indicates that quality-management capability can be transferred through organizational networks. Chains and affiliated groups can use this advantage to develop common training, audit, benchmarking, and digital knowledge systems. Independent hotels may compensate for the absence of such infrastructure through local partnerships, professional associations, shared training programs, and destination-level quality initiatives.

The non-significant technology relationship suggests that investment in digital tools should not be treated as a substitute for organizational design. Hotels should first clarify the process to be improved, the quality indicator to be monitored, the responsible employee or department, and the feedback mechanism. Technology can then support the process.

The weak direct role of competition suggests that managers should not rely exclusively on competitor monitoring as a

quality strategy. Customer segment, strategic positioning, organizational affiliation, and service architecture appear more directly connected to formalization in the present sample. Competitive intelligence remains relevant, but its organizational translation matters.

6.5. Implications for destination governance

At destination level, tourism authorities and professional organizations can recognize that hotel quality systems are heterogeneous. A single compliance-oriented program may impose disproportionate burdens on small independent establishments while providing limited additional value to highly standardized chains. A differentiated support architecture could combine basic quality requirements for all establishments with optional maturity pathways, shared training, digital tools, and destination-level benchmarking.

Such a system would also recognize the value of the hybrid mode. The objective need not be maximum formalization. Rather, destination policy can focus on minimum service reliability, safety, hygiene, complaint handling, and staff capability while allowing different organizational forms to achieve these outcomes.

7. Robustness, Limitations and Future Research

Several limitations should guide interpretation. First, the sample contains only 24 hotels in one destination. The results therefore provide context-specific evidence rather than a statistically representative picture of Moroccan hospitality. Second, the study is cross-sectional. Associations between organizational characteristics and quality formalization cannot be interpreted as definitive causal effects. Third, several constructs rely on perceptual measures collected through the same instrument, creating the possibility of common-method bias.

Fourth, hotel category was not directly tested as a structural hypothesis despite its conceptual relevance. It appears in the descriptive and typological analysis, but the article should not claim a direct category effect. Fifth, the price construct is based on a single item. This limits the reliability assessment that can be made for that variable. Sixth, the source analysis reports Q^2 and a global Goodness-of-Fit statistic, but contemporary PLS-SEM practice increasingly emphasizes out-of-sample prediction and model comparison. A future replication should report PLSpredict or another appropriate holdout-based predictive assessment, together with collinearity diagnostics and robustness checks.

Future research should extend the sample across Marrakech, Agadir, Casablanca, Rabat, Fez, and other Moroccan

destinations, enabling multi-group comparisons. Longitudinal designs could test whether changes in hotel size, ownership, technology, or market positioning lead to subsequent changes in quality formalization. Multi-level studies could examine how chain-level governance interacts with hotel-level contingencies.

Future studies should also connect organizational quality-management modes to outcomes such as customer satisfaction, online ratings, employee turnover, financial performance, and resilience during crises. A particularly promising direction is to examine whether hybrid systems provide advantages under conditions where hotels must simultaneously deliver standardization and personalization. Finally, qualitative comparative analysis or latent class approaches could complement PLS-SEM and provide stronger configurational evidence.

7.1. A refined theoretical model: from universal quality prescriptions to organizational fit

The combined evidence supports a refined formulation of the contingency argument. The relevant question is not simply whether a hotel 'has quality management', because virtually all establishments have some quality-related routines. The more discriminating question is how quality is organized, who carries responsibility for it, how much is codified, and how mechanisms are coordinated across departments. The three-mode typology provides a parsimonious answer to this question by distinguishing organizational logics rather than isolated practices.

This refinement extends traditional service-quality approaches without displacing them. Customer-perceived quality remains important because it represents an essential outcome of the service process. The contribution of the present study is to move one analytical step upstream and examine the organizational conditions under which quality practices are designed and enacted. In this sense, quality formalization is treated as an organizational mechanism linking structural conditions to the practical management of service delivery.

The findings also suggest that formal and informal mechanisms should not be conceptualized as mutually exclusive. The hybrid configuration demonstrates that standardization and discretion can coexist. This is theoretically useful because hospitality organizations must often manage a tension between consistency and personalization. A quality system that is entirely standardized may struggle with exceptional situations, while a system based entirely on tacit coordination may become fragile as

organizational complexity increases. The most appropriate architecture may therefore depend on the hotel's structure, market positioning, service portfolio, and organizational affiliation.

For future contingency research, the model can be developed in three directions. First, larger samples can test whether the same predictors remain significant across Moroccan destinations. Second, longitudinal data can examine whether hotels migrate between informal, hybrid, and formal configurations as they grow or change ownership. Third, customer and performance outcomes can be integrated so that researchers can test not only which organizational configurations exist, but also under what conditions each configuration is associated with superior customer satisfaction, employee outcomes, reputation, or financial performance. These extensions would transform the present typology from a descriptive classification into a more complete theory of organizational fit.

8. Conclusion

This study examined how organizational contingencies shape hotel quality-management modes in Tangier, Morocco. The empirical evidence indicates that quality formalization is associated with a combination of structural, organizational, strategic, and market variables. Organizational affiliation/status, accommodation capacity, and employee size show the strongest reported positive associations, while turnover, service scope, strategy, average price, and clientele add further differentiation. Competition is not significant in the reported model, technology is positive but below the conventional significance threshold, and managerial style displays a negative association that requires cautious interpretation.

The central theoretical implication is that hotel quality management should be understood as an organizationally contingent phenomenon rather than as a universal package of procedures. The formal, hybrid, and informal configurations identified through PCA and multivariate grouping show that hotels can organize quality through different combinations of codification, supervision, standardization, employee discretion, and local adaptation. The typology is therefore descriptive and analytical, not normative: the formal configuration should not automatically be interpreted as superior to the hybrid or informal configurations.

The study contributes by connecting service-quality research with organizational contingency theory and by demonstrating the value of combining explanatory and configurational methods. For managers, the findings suggest that quality

systems should be aligned with organizational complexity and strategic positioning. For researchers, the study provides a basis for replication with larger samples, longitudinal designs, and outcome variables. The evidence is necessarily bounded by the Tangier setting, the cross-sectional design, and the sample of 24 hotels; these limitations should guide rather than obscure the next stage of research.

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