Organizational culture and its implications for project management in an engineering consulting firm

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Abstract
This study examines the organizational culture of an engineering consulting firm and its impact on project management practices. The Organizational Culture Assessment Instrument (OCAI), based on the Competing Values Framework (CVF), was used to assess the current and desired cultural profiles, complemented by qualitative data on employee perceptions. A dominant Market culture was identified, focused on results and customer satisfaction. Recognizing the need for a stronger Clan culture, the study emphasizes improved communication, collaborative leadership, and interdisciplinary synergy to enhance project teamwork and knowledge sharing. Additionally, there was a significant desire for increased Adhocracy, highlighting the need for innovation and adaptability in response to dynamic project demands. The study provides recommendations to strengthen organizational culture and optimize project management.

Keywords: organizational culture; business performance; customer focus; human-centered approach; project management; service quality.

La cultura organizacional y sus implicaciones para la gestión de proyectos en una empresa de consultoría en ingeniería

Resumen
Este estudio examina la cultura organizacional de una firma de consultoría en ingeniería y su impacto en la gestión de proyectos. Se utilizó el Instrumento de Evaluación de la Cultura Organizacional (OCAI), basado en el Marco de Valores Competitivos (CVF), para evaluar los perfiles culturales actuales y deseados, complementado con datos cualitativos sobre las percepciones de los colaboradores. Se identificó una cultura predominante de Mercado, enfocada en los resultados y la satisfacción del cliente. Reconociendo la necesidad de fortalecer la cultura Clan, el estudio destaca la importancia de mejorar la comunicación, el liderazgo colaborativo y la sinergia interdisciplinaria para potenciar el trabajo en equipo y el intercambio de conocimientos. Además, se observó la necesidad de incrementar la cultura de Adhocracia, subrayando la necesidad de innovación y adaptabilidad frente a demandas dinámicas de los proyectos. El estudio ofrece recomendaciones para fortalecer la cultura organizacional y optimizar la gestión de proyectos.

Palabras clave: cultura organizacional; rendimiento organizacional; orientación al cliente; orientación en las personas; gestión de proyectos; calidad en el servicio.

1 Introduction

Organizational culture, a complex interplay of shared values, beliefs, and behavioral norms [1], has emerged as a determining factor in shaping organizational effectiveness and competitiveness [2]. A well-developed organizational culture fosters collaboration, innovation, and client-centricity [3], contributing significantly to successful project delivery and client satisfaction. Furthermore, it enables organizations to adapt and respond effectively to the dynamic demands of the modern business environment, while simultaneously prioritizing employee well-being and professional growth. Cultivating and refining such a culture requires a human-centered approach, encompassing a thorough diagnosis of existing cultural

structures, identification of developmental opportunities, and strategic implementation of interventions designed to reinforce desired values and empower organizational members [4].

Project management, inherently complex, demands the intricate coordination of resources and the integration of diverse perspectives [5]. Organizational culture exerts a considerable influence on project management processes, shaping leadership styles, communication practices, teamwork dynamics, and client interactions [6-10]. It also influences the choice and implementation of project management methodologies [11]. Moreover, a strong emphasis on quality and human development within the project subculture has been linked to improved and client satisfaction [12]. Empirical evidence further supports the importance of integrating human resource practices with quality management within a supportive cultural context to achieve sustainable organizational performance [13]. Organizational culture also plays a vital role in navigating technological transformations, particularly in the context of Industry 4.0, facilitating the implementation of advanced quality management approaches while balancing technological advancement with human-centered considerations [14].

Despite extensive research on the influence of culture on project management across various sectors [15-17], empirical studies specifically focusing on engineering consulting firms remain limited. This sector, distinguished by a highly specialized workforce, inherent project complexity, and a constant drive for innovation, necessitates a contextualized analysis of the relationship between organizational culture and project management.

This work addresses this gap by investigating the relationship between organizational culture, analyzed through the Competing Values Framework (CVF) [18], and its impact on project management within a Colombian engineering consulting firm. The CVF, a widely adopted framework for assessing and categorizing organizational cultures, posits four distinct cultural archetypes: Clan, Adhocracy, Hierarchy, and Market. Each archetype reflects a unique set of values, priorities, and behavioral norms. Clan cultures prioritize collaboration, teamwork, and employee development; Adhocracy cultures emphasize innovation, flexibility, and risk-taking; Hierarchy cultures focus on control, efficiency, and adherence to established procedures; and Market cultures prioritize competition, results orientation, and customer satisfaction.

While the CVF has been employed to examine organizational culture across a range of contexts [19-21], its utilization in the domain of engineering project management remains constrained. Further exploration is required to ascertain the specific influence of these cultural archetypes on project success in this technically demanding field. Furthermore, as international projects become increasingly prevalent, research is required to comprehend the manner in which organizational culture interacts within cross-cultural settings, particularly in the context of engineering. This will facilitate the navigation of these complexities and enhance project outcomes [22-23].

The engineering consulting firm in question has undergone a period of rapid growth and diversification across multiple engineering domains (oil & gas, energy, infrastructure), and provides a compelling case study for exploring the complexities of the culture-project management dynamic. Employing a mixed-methods approach, combining quantitative data from the Organizational Culture Assessment Instrument (OCAI) [18] with qualitative insights gleaned from employee interviews, this study offers a perspective on how organizational culture influences project management effectiveness in a rapidly evolving engineering consulting environment. The findings offer valuable theoretical and practical implications for engineering consulting firms seeking to optimize project outcomes through a deeper understanding and strategic management of their organizational culture.

The remainder of this paper is organized as follows. Section 2 details the research methodology employed. Section 3 presents the findings from both the quantitative and qualitative data analysis. Section 4 discusses the implications of these findings for project management within the context of the engineering consulting industry. Finally, Section 5 summarizes the conclusions and recommendations for future research and practice.

2 Methodology

This case study employed a mixed-methods sequential explanatory design [24], integrating quantitative and qualitative data to investigate the relationship between organizational culture and project management effectiveness within a Colombian engineering consulting firm. This sequential approach prioritized quantitative data collection using the Organizational Culture Assessment Instrument (OCAI) [18], followed by qualitative data collection to explicate the quantitative findings.

The OCAI, adapted and validated for the Spanish language context, served as the primary quantitative instrument. This instrument, grounded in the Competing Values Framework (CVF) [18], assesses organizational culture along four dimensions: Clan, Adhocracy, Market, and Hierarchy. Data were collected in April 2024 via two online surveys administered via Microsoft Forms: "Current Culture: Our Culture" (n=338, 60.5% response rate from 558 eligible employees) and "Desired Culture: What culture do we want to cultivate?" (n=290, 60.3% response rate from 481 eligible employees; the difference in sample size reflects normal workforce fluctuation). Each survey employed a 5-point Likert scale (1=Strongly Disagree to 5=Strongly Agree).

Descriptive statistics were computed for each cultural dimension. Cronbach's alpha was utilized to assess the internal consistency reliability of the OCAI scales (Table 1).

Table 1.
Cronbach's Alpha reliability analysis: OCAI results

Archetype	Reliability coefficient (Cronbach's Alpha)	
	Current Culture	Desired Culture
Market	0.878	0.811
Clan	0.878	0.899
Adhocracy	0.843	0.891
Hierarchy	0.811	0.729

Source: Own elaboration

Table 2.
Analytical emergent themes

Theme	Description	Categories
Communication & Collaboration	Examines how information flows, is shared, and affects team coordination and project outcomes, influencing collaboration efficiency and problem-solving capabilities.	Clan, Hierarchy
Leadership & Empowerment	Focuses on leadership styles, the support leaders provide to teams, and the autonomy and decision-making power granted to employees, impacting team engagement and project success.	Clan, Adhocracy
Innovation & Adaptability	Assesses the organization's approach to integrating new ideas, technologies, and processes, as well as its capacity to adapt to changing project requirements and external factors.	Adhocracy
Employee Well-being	Explores factors influencing employee motivation, job satisfaction, work-life balance, and overall well-being within the project context and organizational environment.	Clan, Market
Customer Orientation	Investigates how client needs and expectations are understood, addressed, and managed throughout the project lifecycle, influencing client satisfaction and project alignment.	Market
Process & Efficiency	Analyzes the effectiveness of organizational processes, balancing standardization and flexibility, and their impact on project execution, cost-efficiency, and timeline management.	Hierarchy, Adhocracy

Source: Own elaboration

All cultural dimensions exhibited acceptable internal consistency, with Cronbach's alpha coefficients ranging from 0.729 to 0.901; this value remains within the conventionally accepted threshold of 0.7 for acceptable internal consistency [25]. The Market and Clan dimensions demonstrated particularly strong reliability ($\alpha = 0.878$ and $\alpha = 0.901$ for Market, current and desired, respectively; $\alpha = 0.878$ and $\alpha = 0.899$ for Clan, current and desired, respectively).

Both OCAI surveys included open-ended questions designed to elicit employees' perceptions of organizational culture and its impact on project management. These qualitative comments provided substantive contextual insights that complemented the quantitative data. Thematic analysis, following the framework established by Braun and Clarke (2006), was employed in order to analyze the qualitative data [26] was used to analyze the qualitative data. An iterative process was used to first identify meaningful segments of text indicative of key concepts and patterns related to organizational culture and project management.

Initial coding was primarily inductive, derived directly from the data, followed by deductive coding to align with the OCAI dimensions and pre-defined project management-related aspects. The codes were grouped into potential themes based on similarities, patterns, and relationships, and refined. This process facilitated the identification of emergent themes related to project management, including communication and collaboration, leadership and empowerment, innovation and adaptability, customer orientation, employee well-being, and process and efficiency (Table 2).

The findings from the quantitative (OCAI) and qualitative thematic analysis phases were integrated to provide a comprehensive understanding of the organizational culture and its influence on project management. Qualitative data were used to illuminate and contextualize the quantitative results, offering insights into the mechanisms through which cultural dimensions affect project management practices and outcomes.

1 Results

This section presents the findings from the research, integrating quantitative data from the Organizational Culture Assessment Instrument (OCAI) based on the Competing Values Framework (CVF) [18] and qualitative insights derived from employee feedback. The analysis focuses on the implications of the identified cultural characteristics for project management within the Colombian engineering consulting firm.

1.1 Comparative OCAI results and project management implications

The organizational culture profiles, both current and desired, are illustrated in Fig. 1 using the Organizational Culture Assessment Instrument (OCAI). The radar chart depicts the strength of four cultural types: Clan, Adhocracy, Market, and Hierarchy; the solid blue line represents the current cultural profile, while the dashed orange line represents the desired cultural profile. The results reveal a dominant Market culture in both the current (4.01) and desired (3.99) states, as further detailed in Table 3. This reflects the firm's emphasis on competitiveness, client focus, and achieving measurable results, aligning with the firm's strategic focus on market competitiveness and its ISO 9001-based quality management system. These findings resonate with Willar et al. [27], who observed similar patterns in organizations prioritizing market performance. In the context of project management, this translates into a strong emphasis on meeting deadlines, budgetary adherence, and fulfilling quality requirements.

The persistent Market culture profile reflects a strategic organizational disposition characterized by external competitive dynamics and measurable performance outcomes. This cultural configuration is significantly contextualized by the national economic environment and the organization's strategic imperative of exploring and capitalizing on emerging market opportunities. The convergence between current and desired Market culture scores suggests a high degree of organizational alignment with existing market-oriented practices, indicating both strategic consistency and an understanding of competitive positioning within the engineering consulting sector.

Table 3.
Current and desired organizational culture profiles: OCAI results

Archetype	Current Culture	Desired Culture
Market	4.013	3.992
Clan	3.919	3.787
Adhocracy	3.789	3.687
Hierarchy	3.893	3.798

Source: Own elaboration

While the Market culture dominates, the current state also exhibits strong Clan (3.919) and Hierarchy (3.893) characteristics. This blend suggests a value for collaboration, teamwork, and structured processes, alongside the market focus. However, the qualitative data indicates the presence of a potential issue. Although employees appreciate teamwork, feedback highlights communication gaps and a lack of interdisciplinary synergy, hindering project efficiency and potentially impacting service quality. This disconnect aligns with previous research indicating that transparency and mutual understanding don't automatically translate into high levels of trust and collaboration [28]. The strong Hierarchy component, while providing structure and stability, may also contribute to resistance to change and hinder the development of a more adaptive and innovative culture.

The desired culture, while retaining the Market focus, reveals a desire for stronger Hierarchy and Clan components. This suggests a need for more clearly defined organizational structures, decision-making processes, and leadership that fosters both employee belonging and adherence to established procedures. This resonates with research demonstrating that clan culture significantly enhances project performance and business outcomes by cultivating a cohesive, high-performing work environment that drives project success metrics while simultaneously generating cost efficiencies and competitive advantages [29]. Furthermore, it underscores the significance of harmonizing market-driven competitiveness with a nurturing and collaborative internal environment. Furthermore, it underscores the significance of harmonizing market-driven competitiveness with a nurturing and collaborative internal environment.

The Adhocracy scores for both the current (3.789) and desired (3.687) states suggest a need for greater attention to innovation, flexibility, and risk-taking. This finding is further substantiated by qualitative feedback, which emphasizes the necessity of increased investment in innovation and training. This suggests a potential limitation in adaptability. In the dynamic engineering consulting sector, the capacity for adaptability, innovation, and the ability to generate and implement new ideas for sustaining long-term competitiveness, especially when integrating agile methodologies [30-31].

The gaps between current and desired scores for Market and Hierarchy suggest relative satisfaction with the current levels of competitiveness and structure. However, the gaps observed for Clan and Adhocracy emphasize the need for interventions targeting communication, collaboration, and innovation. This supports Amaro's [3] assertion that cultural
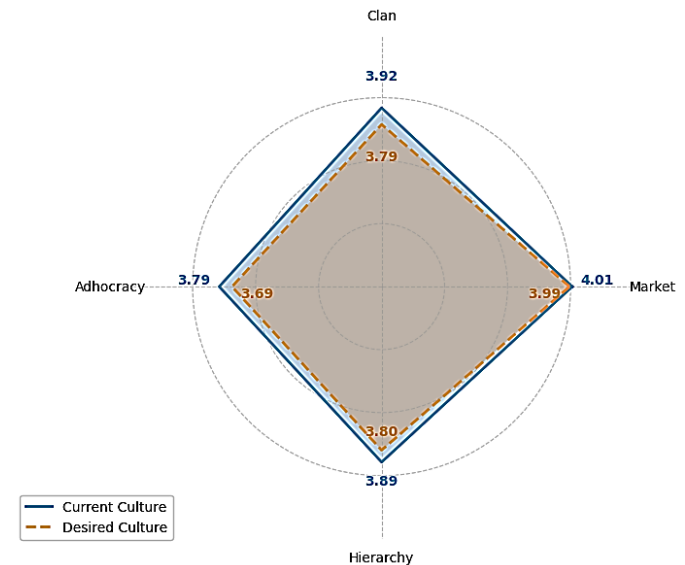

Figure 1. Organizational culture profiles: current and desired
Source: Own elaboration

factors must be addressed before implementing process improvements. Furthermore, the qualitative data underscores the role of employee well-being in cultivating a positive and productive work environment, which in turn affects service quality [32]. Consequently, this reinforces the notion that assessing organizational culture is a step in developing targeted strategies for enhancing not only project performance but also overall organizational effectiveness, particularly within the context of professional services firms like engineering consulting, where human capital is paramount for project management.

3.2 Qualitative feedback and project management implications

The thematic analysis of the qualitative data, following Braun and Clarke's [26] methodology, revealed six interrelated themes that guided the relationship between organizational culture and project management. These themes emerged through an iterative coding process that combined inductive analysis of employee narratives with deductive alignment to OCAI dimensions. Table 4 presents the primary coding scheme employed for the thematic analysis.

The analysis revealed a notable dichotomy between organizational strengths and areas for development, with significant implications for project management practices. While employees acknowledged strong collaborative dynamics within immediate teams, as evidenced by statements such as "there is a real collective spirit of teamwork," significant challenges were identified in cross-functional communication. Interview data revealed particular concerns about "interdisciplinary and interdepartmental coordination". This communication gap has a significant impact on project schedule adherence and deliverable

Table 4.
Thematic inductive coding scheme

Theme	Primary codes	Implications for project management
Communication & Collaboration	team interaction; information flow; Interdisciplinary dynamics; communication patterns; meeting structures; knowledge sharing	Effective teamwork, knowledge transfer processes, and timely problem-solving
Leadership & Empowerment	decision-making patterns; authority dynamics; team guidance; training needs; management approaches; leadership skills	Project team autonomy, decision-making processes and responsiveness to change
Innovation & Adaptability	technological integration; change response; resource allocation; methodological approaches; innovation practices; adaptation processes	Capacity for project adaptation, technical advancement, and develop creative solutions
Employee Well-being	work flexibility; time management; communication; job stability; work environment; performance	Team performance and project effectiveness
Customer Orientation	service quality; timeline management; client interaction; quality standards; relations; feedback; integration	Project alignment and stakeholder satisfaction
Process & Efficiency	workflow patterns; resource management; process standardization; operational flexibility; task distribution; change mechanisms	Standardization needs, project agility and responsiveness to change

Source: Own elaboration

quality, especially during periods of organizational uncertainty. The findings indicate a need for comprehensive review and optimization of project management processes, including the implementation of methodologies and tools that promote both efficiency and quality.

The analysis revealed a complex leadership landscape characterized by contrasting experiences. The current clan culture score (3.919) suggests a collaborative environment, but qualitative data suggests inconsistent leadership practices. While some employees praised leadership's focus on human capital, others expressed concerns about objectivity and communication style. Some complaints about management and calls for more leadership training suggest a disconnect between desired participative leadership and current practices. This divergence particularly affects project team autonomy and decision-making efficiency, highlighting the need for more skilled and empathetic leadership approaches.

The relatively lower Adhocracy scores (current: 3.789, desired: 3.687) are consistent with employee feedback indicating limited innovation capacity. In particular, participants cited a lack of innovation due to "no alternatives being presented" and resistance to technological advances. This conservative approach, while potentially reducing risk, hinders the organization's ability to adapt to evolving project needs, although balanced against the need for operational stability.

Employees emphasized the need for increased investment in innovation and the development of a more supportive culture for experimentation and technology adoption.

The analysis revealed a nuanced perspective on employee well-being, with flexible work arrangements emerging as a positive factor and source of motivation and performance. However, concerns about workload management and work-life balance were prevalent, with employees reporting longer working hours. Also, employees emphasize the need for training opportunities that support professional growth and service quality enhancement. The tension between market-driven performance expectations (OCAI score: 4.013) and clan-driven employee support (3.919) manifested itself in project resource allocation and scheduling challenges. Belonging to the company emerged as a source of pride, although this positive aspect is sometimes overshadowed by concerns about job security and changing working conditions.

Market culture orientation (current: 4.013, desired: 3.992) reflects a strong customer focus, as evidenced by comments emphasizing the quality of deliverables. However, qualitative data suggests a need for more balanced client relationships, with employees noting the importance of negotiating realistic timelines. While there is a clear awareness of the importance of client focus to organizational success, employees perceive a gap between this awareness and concrete actions, suggesting an opportunity to improve project success through more collaborative client partnerships while maintaining delivery excellence.

The interplay between hierarchical (3.893) and adhocracy (3.789) values is clearly evident in the process-related feedback. Employees identified significant opportunities for efficiency improvement, particularly in the timeliness of deliverables. The data suggests that current processes, while structured, may not optimally support project execution, indicating a need for balanced standardization that maintains necessary flexibility.

These findings collectively suggest that while the organization demonstrates strengths in team-level collaboration and client orientation, significant opportunities exist to enhance project management effectiveness through improved cross-functional communication, leadership development, and process optimization. The analysis reveals particular tension between maintaining established procedures and fostering innovation, a challenge that directly impacts project execution and outcomes. Furthermore, the emphasis on client orientation and job security underscores the interconnected nature of employee satisfaction, project success, and client satisfaction in the organizational ecosystem.

2 Discussion

This research reveals a complex interplay between organizational culture and project management performance. Contrary to the traditional view of inherent contradiction between market orientation and clan values [33], our findings suggest a more nuanced relationship. The findings show that a strong market orientation is complemented by a significant presence of clan characteristics, demonstrating a

simultaneous emphasis on client satisfaction and team collaboration. This aligns with recent studies highlighting the symbiotic relationship between internal collaboration and external performance in project-based organizations [34]. However, the effectiveness of this combination hinges on its translation into concrete project management practices.

A significant gap exists between desired clan values and actual communication practices. This misalignment reinforces Aubry's argument regarding the challenges of cultural transformation in project-based organizations. Our results indicate a complex interplay between formal processes and informal cultural dynamics. This tension is particularly evident between hierarchical efficiency and adhocratic innovation, where formal structures both enable and constrain project performance. The Adhocracy score presents a paradox: while literature emphasizes innovation and adaptability [30,31,35], our findings reveal a resistance to these pressures in favor of stability. This extends the work of Durana et al. [14], showing how a strong quality culture can inhibit innovation when coupled with hierarchical control, mirroring a possible tension between innovation and existing culture. This resistance may limit adaptability to evolving project requirements and technological advancements.

Furthermore, our study highlights employee well-being as a mediating factor between cultural orientation and project performance, a relationship under-explored in prior research. Well-being is not merely a cultural outcome [36, 37], but an active mechanism through which culture influences project success, particularly in knowledge-intensive firms. The desire for enhanced hierarchical structure while maintaining flexibility contributes to the ambidexterity debate in project-based organizations. Our findings suggest that structure and flexibility can be complementary when supported by appropriate cultural values, extending current theory by demonstrating how standardization and adaptation can coexist through cultural alignment. Finally, evidence of concerns regarding job security and the impact of certain company policies underscores the need to address these issues to foster a supportive and positive work environment [4,32].

These cultural traits have direct implications for project management processes. For instance, while quantitative data revealed a strong emphasis on meeting deadlines and budget constraints (Market), reflected in high achievement orientation scores, qualitative interview data suggested this focus sometimes compromised comprehensive risk assessment and stakeholder engagement. Project managers described instances where tight deadlines led teams to bypass essential planning steps, causing unforeseen issues during execution. This highlights the tension between the Market culture's drive for efficiency and the need for more collaborative planning practices characteristic of a Clan culture. This tension also manifested during project execution. While the Market culture's focus on efficiency resulted in accelerated timelines (supported by quantitative performance data), qualitative feedback revealed instances where this rapid pace compromised quality and adaptability. One team member noted, "We're so focused on hitting deadlines that we sometimes rush through critical testing phases." Strengthening Clan-oriented characteristics, such as teamwork and knowledge sharing, could facilitate more robust and adaptable execution strategies.

Moreover, the observed resistance to adhocracy, despite its potential benefits for innovation, likely contributes to the difficulties adapting to unexpected project changes. Regarding communication, quantitative data indicated a preference for formalized channels and hierarchical reporting (Market), yet qualitative interviews revealed that this often-created communication bottlenecks and a lack of transparency. Employees expressed frustration with limited opportunities for open dialogue and feedback, with one noting, "Information flows down, but rarely up." Cultivating Clan-oriented communication practices could significantly improve information flow and collaboration. Finally, while the Market culture fostered individual accountability (reflected in positive performance data), qualitative feedback suggested it sometimes created a competitive environment that undermined team cohesion. Integrating Clan and Adhocracy principles, perhaps through cross-functional teams and knowledge-sharing initiatives, could foster a more supportive and collaborative atmosphere.

Based on these findings, a series of strategic recommendations have been formulated to enhance project management effectiveness through cultural alignment. Primarily, the implementation of formalized communication protocols, encompassing regular interdisciplinary meetings and the utilization of collaborative platforms, has the potential to address communication gaps and foster knowledge sharing. Concurrently, leadership development programs must prioritize empowering project teams, establishing clear roles and responsibilities, effective delegation of authority, and the implementation of robust feedback mechanisms to promote accountability and continuous improvement. Moreover, dedicated investment in innovation is imperative. This necessitates the establishment of dedicated innovation teams, the creation of platforms for idea generation and knowledge sharing, the provision of training opportunities in new technologies, and the fostering of a culture that actively encourages risk-taking, as suggested [38-39]. These initiatives directly address the observed resistance to innovation and the need for enhanced adaptability.

Finally, a comprehensive approach to employee well-being is required. This necessitates the implementation of well-being programs, the assurance of transparent communication regarding company policies, the establishment of structured recognition programs, and the offering of flexible work arrangements to foster a positive and supportive work environment. In addition to internal improvements, a targeted focus on client relationships is imperative. This entails client focus training for employees, active client involvement in all project stages, implementation of robust feedback mechanisms, and engagement in proactive relationship-building activities. Concurrently, a continuous review and optimization of existing processes, coupled with the implementation of continuous improvement methodologies, will facilitate the achievement of efficiency gains while balancing

standardization with the necessary flexibility to adapt to evolving project demands.

3 Conclusions

Organizational culture and its implications for project management within an engineering consulting firm were examined in this study. Findings reveal a significant relationship between the dominant Market culture, the desire for stronger Clan and Adhocracy elements, and the need to address employee well-being. While the firm's existing Market-driven culture aligns with its client-centric business model, it also presents project management challenges. An emphasis on competition and demonstrable results may prioritize deadlines and budgets at the expense of collaboration and innovation within project teams.

The expressed desire for a stronger Clan culture, with its focus on collaboration and employee development, suggests the value of interventions that promote teamwork and knowledge sharing within projects. An Adhocracy lens further reveals the importance of investments in innovation and training to cultivate a more adaptable and innovative project management approach capable of responding effectively to dynamic project demands.

Empirical evidence suggests successful cultural evolution requires the systematic integration of formalized structures with human-centric approaches. This integration manifests through interconnected dimensions, including communication architectures, leadership development, innovation capacity, workforce well-being, and process optimization. Synthesizing these dimensions indicates that organizational excellence and project management effectiveness transcend isolated interventions. Rather, a cohesive transformation of both technical and social subsystems is required, with an emphasis on balanced development between structural efficiency and human factors. Such an approach offers engineering consulting firms actionable pathways for cultural evolution while maintaining operational excellence.

The study contributes to existing literature by providing a contextualized analysis of the impact of organizational culture on project management within the engineering consulting sector. The mixed-methods approach provides a nuanced understanding of the cultural dynamics, highlighting the complexities of balancing competing cultural values within a project-based organization. Specifically, the research demonstrates that a strong market orientation can coexist with a desire for increased Clan and Adhocracy characteristics, provided that targeted interventions are implemented to address resulting tensions and foster a more integrated and balanced cultural profile.

Ultimately, a balanced cultural profile is essential for effective project management in engineering consulting. While a Market orientation contributes to efficiency, it must be counterbalanced by stronger Clan and Adhocracy elements to foster collaboration, adaptability, and open communication. These elements contribute directly to enhanced project outcomes. Future research should explore the longitudinal impact of the suggested interventions and investigate the mechanisms through which cultural change influences project success within this sector. Comparative studies across different firm sizes and specializations would be valuable. Incorporating employee well-being measures into future organizational culture assessments would offer a more holistic understanding of cultural influences on project performance.

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