Journal of Economics, Management, Entreprenuer, and Business

| ISSN (Online) 2797-1511 | ISSN (Print) 2797-1503 |

DOI: https://doi.org/10.52909/jemeb.v5i1.239

The Mediating Role of Intellectual Capital in the Influence of Organizational Culture and Risk Management on the Business Performance of Construction Companies in Indonesia

Rudy Hartono[1], Willy Arafah[2], Justine Tanuwijaya[3]
[1] Faculty of Economics and Business, Universitas Trisakti, Jakarta, Indonesia
[2] Faculty of Economics and Business, Universitas Trisakti, Jakarta, Indonesia
[3] Faculty of Economics and Business, Universitas Trisakti, Jakarta, Indonesia

Corresponding Author: 221022305008@std.trisakti.ac.id[1]

Abstract: This study aims to examine the influence of Organizational Culture and Risk Management on Corporate Performance, with Intellectual Capital as a mediating factor, within construction companies in Indonesia. A quantitative approach was employed, with data analyzed using SmartPLS 3. The sample consisted of 281 respondents drawn via purposive sampling from eight reputable construction companies in Indonesia, each with over five years of operational experience. The sample size was determined using Slovin's formula. Results indicate that Organizational Culture (X_1) has a significant positive effect on Intellectual Capital (Z) (p = 0,000). Risk Management (X_2) also significantly influences Intellectual Capital (p = 0,039). Regarding Corporate Performance (Y), Organizational Culture (X_1) has an insignificant effect (p = 0,073), while Risk Management (X_2) shows a significant effect (p = 0,049). and Intellectual Capital (Z) positively and significantly influences Corporate Performance (Y) (p = 0,000). This study advances theoretical understanding by integrating Intellectual Capital into the analysis of how Organizational Culture and Risk Management collectively shape Corporate Performance in the construction industry. The findings suggest that Intellectual Capital plays a crucial mediating role in these relationships.

Keyword: Organizational Culture; Risk Management; Intellectual Capital; Corporate Performance.

INTRODUCTION

The Indonesian construction industry faces complex challenges such as material price fluctuations, low productivity, project delays, and cost overruns, with technical risks remaining the most dominant (Rahardi & Johari, 2022). As one of the pillars of the national economy, the sector contributed 9.92% to Indonesia's GDP in 2023, ranking fifth after manufacturing, trade, agriculture, and mining (binakonstruksi.pu.go.id). Supported by major infrastructure projects such

as the Trans-Sumatra Toll Road and Nusantara Capital City, the government targets annual growth of 6.4–6.7% for the sector (binakonstruksi.pu.go.id). Despite this potential, the industry continues to face substantial operational and financial challenges.

Organizational culture plays a critical role in shaping employee behavior and long-term corporate performance perusahaan (Rani & Indrayanti, 2020). Construction firms with strong, collaborative, and performance-oriented cultures are better able to mobilize human resources and achieve project success (Nurmiati *et al*., 2022; Muntu *et al*. 2021). Positive organizational culture enhances coordination, clarifies objectives, fosters innovation (Hussain Al-Hashimy *et al*., 2022), and provides competitive advantage as an intangible strategic asset alongside intellectual capital (Wijayani *et al*., 2019). Conversely, weak culture can undermine organizational effectiveness and synergy (Osman *et al*., 2023). Hence, strengthening professional and collaborative cultural values is vital for Indonesian construction firms.

Given the sector's inherent uncertainty, risk management is equally crucial (Alshehhi *et al*., 2021). Effective implementation helps control financial risks, reduce project delays, and maintain quality (Purwanti dan Heriana 2024; Boateng *et al*., 2022). Empirical findings also link comprehensive risk frameworks to improved stakeholder satisfaction and project outcomes. In Indonesia, financial risk has been shown to lower firm performance, while strategic risk management enhances it by enabling high-value project acquisition (Purwanti & Heriana, 2024). Building a risk management culture, such as through risk committees, therefore strengthens corporate resilience (Asir *et al*., 2023).

Intellectual capital (IC)—comprising human, structural, and relational capital—represents a strategic intangible resource that underpins innovation and competitiveness (Duodu & Rowlinson, 2021; Wijayani et al., 2019). Construction firms with high IC are better positioned to innovate, improve project management, and adapt to market dynamics. Conceptually, IC mediates the relationship between organizational factors and firm performance (Hashim et al., 2022). A culture that promotes learning and innovation enhances IC through knowledge sharing and training, which in turn improves long-term outcomes (Osman et al., 2023). Similarly, robust risk management strengthens structural capital by institutionalizing project learning. Empirical evidence confirms that IC amplifies the positive effects of culture, risk management, and financial restructuring on business performance (Zhang et al., 2025; Wijayani et al., 2019).

Table 1 Research Gap

Research Focus / Variable	Key Findings from Previous Studies	Identified Research Gaps	Implications for Current Study
Organizational Culture and Business Performance	Organizational culture influences employee behavior, coordination, innovation, and long-term performance (Rani & Indrayanti, 2020; Nurmiati et al., 2022; Muntu et al., 2021; Hussain Al-Hashimy et al., 2022).	Most studies focus on manufacturing or service sectors; limited empirical research examines how organizational culture drives performance in Indonesia's **construction industry**.	Investigate how specific cultural traits (collaboration, professionalism, innovation) enhance performance within construction firms.
Risk Management and Business Performance	Effective risk management reduces delays, improves quality, and enhances stakeholder satisfaction (Alshehhi et al., 2021; Boateng et al., 2022; Purwanti & Heriana, 2024).	Prior research rarely examines **risk management as an organizational capability** or its integration with other strategic resources (e.g., intellectual capital) in construction contexts.	Assess the role of risk management not only as a control mechanism but as a **strategic enabler** of business performance.
Intellectual Capital (IC)	IC—comprising human, structural, and relational capital—enhances innovation and competitiveness (Duodu & Rowlinson, 2021; Wijayani et al., 2019).	Existing studies focus mainly on manufacturing and service sectors; empirical evidence on IC's role in **construction firms** remains limited.	Analyze how IC influences innovation, adaptability, and project success in construction companies.
Mediating Role of Intellectual Capital	IC mediates the relationship between organizational factors and performance	Few studies explicitly test IC as a **mediator** between **organizational culture**, **risk management**, and	Examine how IC translates cultural and risk management

Research Focus / Variable	Key Findings from Previous Studies	Identified Research Gaps	Implications for Current Study
	(Hashim et al., 2022; Osman et al., 2023; Zhang et al., 2025).	**financial restructuring** in the construction sector.	strengths into measurable business performance.
Context: Indonesian Construction Industry	Construction is a major economic sector (9.92% of GDP in 2023) but faces productivity, cost, and risk challenges (Rahardi & Johari, 2022; binakonstruksi.pu.go.id).	Most international research overlooks **emerging economies** and **industry-specific dynamics** (e.g., infrastructure mega-projects, policy environment).	Provide **contextual insights** into how Indonesian construction firms can leverage IC to enhance performance amid structural and financial uncertainty.

Source: Data processed by researchers (2025)

Based on the empirical studies discussed above, a research gap exists in providing alternative perspectives on business performance, which can be influenced by multiple factors. Therefore, this study seeks to address that gap by proposing a new combination and construction of research models aimed at improving business performance. It is expected to offer both theoretical and empirical novelty through a conceptual framework that integrates these various perspectives.

LITERATURE REVIEW

Organizational Culture

Organizational culture refers to a set of values, beliefs, and behaviors that guide the actions and interactions of individuals within an organization (Nugraha *et al*., 2024; Hayat *et al*., 2019). It encompasses how people interact with one another, the attitudes they hold toward their work, and the principles that govern day-to-day operations (Bradigan & Hartel, 2019). Organizational culture is often regarded as the "personality" of an organization, shaping its identity, influencing decision-making processes, and ultimately defining the overall work environment (Odor, 2018).

Risk Management

Rahayu *et al*. (2022) define risk management as the effort undertaken to minimize potential risks that may occur in the future. Risk management is a structured process of identifying, assessing, and managing risks that could affect the achievement of organizational objectives (Songling *et al*., 2018; Liu, 2019). According to Wijaya & Mulyantini (2023), risk management is a process influenced by the board of directors, management, and other personnel, implemented in strategy formulation and across the organization. It is designed to identify potential events that may affect the entity and to manage risks within acceptable limits, thereby providing reasonable assurance regarding the achievement of the entity's objectives**.**

Intellectual Capital

Intellectual capital refers to the value embedded in an organization's knowledge, expertise, brand equity, relationships, and technology that provides a competitive advantage (de Frutos-Belizón *et al*., 2019). It encompasses a company's intangible assets, including knowledge, skills, expertise, and other intangible elements that enhance its value and competitiveness (Komnenić & Pulić, 2021). Intellectual capital includes human capital (employee skills and expertise), structural capital (organizational culture, processes, and systems), and customer capital (customer relationships and loyalty) (Korzhak, 2023). Despite its intangible nature, intellectual capital is critical to organizational success (de Frutos-Belizón *et al*., 2019). Defining and measuring intellectual capital is complex and challenging, with no single universally accepted approach (Strelnikova, 2022).

Company Performance

Corporate performance can be defined as the overall effectiveness and efficiency of a company in achieving its goals and objectives (Irmalasari *et al*., 2022). It serves as a measure of how well a firm manages its resources—including intellectual capital, organizational structure, risk

management, and stakeholder management—to create value for stakeholders and accomplish its strategic objectives (Sasanti *et al*., 2023). Daniali *et al*. (2020) synthesize corporate performance as a measure or assessment of the outcomes achieved by a company in relation to previously established goals and targets. Similarly, Yohanes *et al*. (2021) emphasize corporate performance as a periodic determination of an organization's operational effectiveness based on pre-defined objectives, standards, and criteria.

Organizational Culture and Risk Management impact on Intellectual Capital

Organizational culture can have a significant impact on intellectual capital in various ways. Intellectual capital refers to a company's intangible assets, including knowledge, skills, and expertise, which are not reflected in traditional balance sheet items (Gultom & Lubis, 2023). Organizational culture plays a crucial role in shaping a company's intellectual capital by influencing how knowledge is shared and utilized, the level of innovation, and the overall effectiveness of intellectual capital management (Masiyono & Widigdo, 2022). A strong culture that values and promotes knowledge sharing, collaboration, and continuous learning can significantly enhance intellectual capital (Sinaga *et al*., 2020).

Risk management is crucial for organizations to effectively utilize and protect their intellectual capital. It has a significant and multifaceted impact on intellectual assets, enhancing their overall value and contribution to the organization (Bulatetskaya, 2019). By safeguarding intellectual property from infringement, theft, and loss, risk management preserves the value of these assets, which constitute a key component of intellectual capital (Chidede, 2022).

H1: Organizational Culture significanltly impact on Intellectual Capital

H2: Risk Management significantly impact on Intellectual Capital.

Organizational Culture and Risk Management impact on Company Performance

A strong and positive organizational culture can lead to higher levels of employee engagement, motivation, and satisfaction, which in turn enhance productivity and performance (Joshi & Tiwari, 2019). One key aspect of organizational culture is its influence on employee morale and commitment (Panthi, 2019). A culture that values transparency, trust, and open communication fosters a sense of belonging and loyalty among employees, leading to higher retention and lower turnover (Ramachandran & Prasad, 2022). This, in turn, positively impacts company performance by reducing recruitment and training costs while maintaining a stable and experienced workforce**.**

Risk management plays a crucial role in determining company performance by helping organizations identify, assess, and mitigate risks that may affect corporate objectives (Saadi & Norhayati, 2021). Effective risk management practices can enhance financial performance, operational efficiency, and reputation, whereas poor risk management can lead to financial losses, operational disruptions, and damage to the organization's brand (Chung & Caldas, 2022).

H3: Organizational Culture significantly impact on Company Performance

H4: Risk Management Significantly impact on Company Performance

Intellectual Capital impact on Company Performance

Intellectual capital, which includes employees' knowledge, skills, and expertise, as well as intangible assets like patents, trademarks, and brand reputation, can significantly impact company performance (Anyika, 2020). It is increasingly recognized as a key driver of competitive advantage and value creation in today's knowledge-based economy (Khan, 2018). A skilled, knowledgeable, and motivated workforce can drive innovation and help a company develop new products, services, and processes that meet customer needs and stand out from competitors (Shao, 2023). This can

boost market share, revenue growth, and profitability. Intellectual capital also plays an important role in improving operational efficiency and effectiveness (Halid et al., 2018).

H5: Intellectual Capital Significantly impact on Company Performance

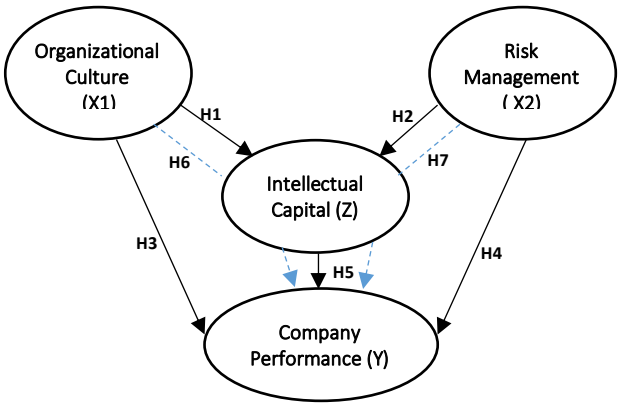
Intellectual Capital Mediates Organizational Culture and Risk Management on Company Performance

Intellectual capital functions as a mediator between organizational culture and company performance. Research indicates that enhancing intellectual capital can strengthen the positive impact of organizational culture on performance (Reza & Silalahi, 2021). In the context of sustainability-focused companies, as shown in studies on green organizational culture, green intellectual capital can boost innovation and operational efficiency, thereby contributing to overall company performance (Sustrastanti & Rachmawati, 2023).

Research by Ardina & Novita (2023) shows that the disclosure of risk management and intellectual capital has a significant positive effect on company performance, measured by Return on Equity (ROE). This indicates that companies that actively manage risks and leverage their intellectual assets can achieve better financial performance. A study by Indawati et al. (2024) found that risk management directly affects sustainability performance, although intellectual capital is not always significant in all models.

H6: Intellectual Capital significantly mediates Organizational Culture on Company Performance

H7: Intellectual Capital significantly mediates Risk Management on Company Performance



Source: Researchers (2025)

Figure 1 Conceptual Framework

METHOD

This study adopts a quantitative research design aimed at empirically testing the relationships among organizational culture, risk management, financial restructuring, and business performance, with intellectual capital as a mediating variable. The population consists of construction companies operating in Indonesia, a sector that significantly contributes to the national economy. A purposive sampling method is employed to select firms that meet specific criteria, including company size, project portfolio, operational experience, and the availability of audited financial reports.

Data collection is conducted through structured questionnaires distributed to key organizational actors such as directors, managers, and project supervisors, ensuring that responses reflect both strategic and operational perspectives. Secondary data are also obtained from annual reports and industry databases to enhance validity. The research instruments are adapted from

established scales in previous studies and tested for reliability and validity using Cronbach's Alpha and Hypotheses testing.

For data analysis, the study utilizes Structural Equation Modeling (SEM) with software such as AMOS or Smart-PLS to evaluate direct, indirect, and mediating effects. Ethical considerations, including confidentiality and voluntary participation, are strictly maintained throughout the research process

RESULTS AND DISCUSSION

Respondent Demographics

Table 2. Respondent Demographic

Factor	Category	Frequency	Percentage (%)
Gender	Male	231	82.2
	Female	50	17.8
	Total	281	100.0
Age	20–30 years	12	4.2
	>30–40 years	166	59.0
	>40–50 years	92	32.7
	>50 years	11	4.1
	Total	281	100.0
Education	Bachelor's Degree (S1)	219	78.0
	Master's Degree (S2)	62	22.0
	Doctorate/PhD (S3)	0	0.0
	Total	281	100.0
Years of Work Experience	3 years	20	7.1
	4 years	43	15.3
	5 years	32	11.4
	>5 years	186	66.2
	Total	281	100.0
Position	Staff	106	37.8
	Leader/Supervisor	127	45.2
	Manager	48	17.0
	Total	281	100.0

Source: Researchers (2025)

Table 2 demonstrate that the majority of respondents are male (82.2%), reflecting the male-dominated nature of the construction industry in Indonesia. Most are aged 31–40 years (59.0%), indicating a predominance of experienced professionals in their prime working years. In terms of education, 78.0% hold a Bachelor's degree, while 22.0% have a Master's degree, showing a well-educated workforce. Furthermore, 66.2% have over five years of experience, suggesting strong industry familiarity. Regarding job positions, 45.2% are leaders/supervisors, followed by staff (37.8%) and managers (17.0%), providing balanced representation across organizational levels.

Table 3. Reflective measurement model

Construct	Indicator	Outer Loading	Cronbach's α	Composite Reliability (CR)	AVE
Organizational Culture	OC1	0.812	0.966	0.962	0.707
	OC2	0.902			

Construct	Indicator	Outer Loading	Cronbach's α	Composite Reliability (CR)	AVE
	OC3	0.933			
	OC4	0.724			
	OC5	0.806			
	OC6	0.722			
	OC7	0.906			
	OC8	0.915			
	OC9	0.855			
	OC10	0.823			
	OC11	0.822			
	OC12	0.841			
Risk Management	RM1	0.910	0.981	0.983	0.853
	RM2	0.936			
	RM3	0.800			
	RM4	0.901			
	RM5	0.907			
	RM6	0.930			
	RM7	0.895			
	RM8	0.926			
	RM9	0.928			
	RM10	0.883			
	RM11	0.872			
	RM12	0.854			
	RM13	0.887			
	RM14	0.896			
Intellectual Capital	IC1	0.907	0.975	0.978	0.834
	IC2	0.916			
	IC3	0.912			
	IC4	0.902			
	IC5	0.917			
	IC6	0.896			
	IC7	0.924			
	IC8	0.937			
	IC9	0.910			
Company Performance	CP1	0.919	0.969	0.976	0.889
	CP2	0.920			
	CP3	0.939			
	CP4	0.907			
	CP5	0.901			

Output of SmartPLS 4.0

All indicator outer loadings exceed 0.70, indicating strong item reliability and confirming that each indicator adequately represents its underlying construct. Specifically, the outer loadings for Organizational Culture range from 0.722 to 0.933, for Risk Management from 0.800 to 0.936, for Intellectual Capital from 0.896 to 0.937, and for Company Performance from 0.901 to 0.939. These results demonstrate that all indicators meet the recommended threshold for indicator reliability (Hair et al., 2021).

The Cronbach's alpha values for all constructs (ranging from 0.966 to 0.981) are well above the accepted minimum of 0.70, indicating excellent internal consistency. Similarly, the Composite Reliability (CR) values (ranging from 0.962 to 0.983) confirm high construct reliability and internal homogeneity.

Furthermore, all Average Variance Extracted (AVE) values exceed 0.50—specifically, 0.707 (Organizational Culture), 0.853 (Risk Management), 0.834 (Intellectual Capital), and 0.889 (Company Performance)—demonstrating strong convergent validity and confirming that each construct explains more than 50% of the variance of its indicators.

Overall, these findings indicate that all constructs in the model exhibit high reliability and valid measurement properties, providing a strong foundation for subsequent structural model analysis

Table 4. Discriminant Validity Fornell-Larcker Criterion

	Intellectual Capital	Organizational Culture	Company Performance	Risk Management
Intellectual Capital	0.913			
Organizational Culture	0.824	0.840		
Performance	0.811	0.834	0.850	
Risk Management	0.706	0.938	0.850	0.895

Output of Smart-PLS 3.0

The table presents the square roots of the AVEs for each construct along the diagonal and the correlations between constructs in the off-diagonal positions. For Intellectual Capital (IC), the square root of AVE is 0.913, and its correlations with Organizational Culture (0.824), Performance (0.811), and Risk Management (0.706) are all lower than 0.913, indicating discriminant validity. Organizational Culture (OC) has a square root of AVE of 0.840, with correlations to IC (0.824), Performance (0.834), and Risk Management (0.938), all below 0.840, which also confirms discriminant validity. Performance (CP) shows a square root of AVE of 0.850, while its correlations with IC (0.811), OC (0.834), and Risk Management (0.850) remain below this threshold, again supporting discriminant validity. Risk Management (RM) has a square root of AVE of 0.895, with correlations to IC (0.706), OC (0.938), and CP (0.850), all less than 0.895, confirming that discriminant validity is established.

Overall, since all constructs meet the Fornell-Larcker criterion, the measurement model demonstrates adequate discriminant validity. Establishing discriminant validity is critical because it ensures that each construct in the model is unique and not redundant with others, allowing researchers to attribute effects and relationships to specific constructs and thereby enhancing the interpretability and credibility of the findings. In summary, the Fornell-Larcker criterion provides a robust method for confirming discriminant validity in SEM, ensuring that constructs are sufficiently distinct and that relationships within the model can be interpreted with confidence.

Table 5. HTMT (*Heterotrait-monotrait ratio*)

	Intellectual Capital	Organizational Culture	Company Performance
Intellectual Capital			

Organizational Culture	0.754		
Performance	0.840	0.863	
Risk Management	0.620	0.763	0.879

Output Smart-PLS 3.0

The Heterotrait-Monotrait ratio (HTMT) is a widely used criterion for assessing discriminant validity in structural equation modeling (SEM). It evaluates the extent to which constructs are empirically distinct from each other by comparing the average correlations between constructs (heterotrait-heteromethod) with the correlations within the same construct (monotrait-heteromethod). An HTMT value below 0.85 (some scholars use 0.90 as the threshold) indicates adequate discriminant validity, meaning the constructs are distinct.

In the provided table, the HTMT values among the constructs are as follows: Intellectual Capital and Organizational Culture: 0.754; Intellectual Capital and Company Performance: 0.840; Intellectual Capital and Risk Management: 0.620; Organizational Culture and Company Performance: 0.863; Organizational Culture and Risk Management: 0.763; Company Performance and Risk Management: 0.879. All of these values are below the conservative 0.90 threshold, indicating that discriminant validity is adequately established among the constructs.

Specifically, the highest HTMT value is 0.879 between Company Performance and Risk Management, which is still below 0.90, suggesting that although the constructs are strongly correlated, they remain empirically distinct. Similarly, Intellectual Capital shows moderate to strong but acceptable correlations with Organizational Culture (0.754) and Company Performance (0.840), confirming that Intellectual Capital captures unique variance not shared with other constructs.

Overall, the HTMT results support the conclusion that the measurement model demonstrates good discriminant validity, indicating that each construct measures a distinct concept, and the relationships observed among constructs can be interpreted reliably.

Table 7. Structural Measurement Model (direct Effect)

Hypothesis	Original Sample (O)	p-value	Conclusion
H1: Organizational Culture → Intellectual Capital	0.620	0.000***	Supported
H2: Risk Management → Intellectual Capital	0.229	0.039**	Supported
H3: Organizational Culture → Company Performance	-0.216	0.073*	Not Supported
H4: Risk Management → Company Performance	0.261	0.049**	Supported
H5: Intellectual Capital → Company Performance	0.911	0.000***	Supported

Significance Level ***1%; **5% dan *10%
Output of Smart-PLS 3.

The results of hypothesis testing indicate varying levels of support for the proposed relationships in the research model. H1 posits that organizational culture positively affects intellectual capital. The standardized path coefficient is 0.620 with a p-value of 0.000, which is highly significant ($p < 0.01$), indicating strong support for this hypothesis. This suggests that a positive and collaborative organizational culture significantly enhances the firm's intellectual capital. H2 examines the influence of risk management on intellectual capital. The path coefficient is 0.229 with a p-value of 0.039 ($p < 0.05$), showing that effective risk management has a moderate but significant positive effect on intellectual capital. H3 tests the direct effect of organizational culture on company performance. The path coefficient is negative (-0.216) with a p-value of 0.073, which is not statistically significant at the 5% level, indicating that organizational culture does not have a direct positive impact on company performance in this context.

H4 investigates the impact of risk management on company performance. The coefficient is 0.261 with a p-value of 0.049, confirming a significant positive effect. This implies that companies with stronger risk management practices tend to achieve better business performance. H5 assesses the effect of intellectual capital on company performance. The coefficient is 0.911 with a p-value of 0.000, demonstrating a very strong and significant positive influence. This finding highlights that intellectual capital is a critical determinant of business performance in construction companies. Overall, the results suggest that while organizational culture strengthens intellectual capital, its direct impact on performance is not significant. In contrast, intellectual capital and risk management play key roles in enhancing company performance.

Table 8| Structural Measurement Model (Indirect Effect)

Hypothesis	Original Sample (O)	p-value	Conclusion
Organizational Culture → Intellectual Capital → Company Performance	0.565	0.000***	Supported
Risk Management → Intellectual Capital → Company Performance	0.209	0.040**	Supported

Significance Level ***1%; **5% dan *10%

Output of Smart-PLS 3.0

The mediation analysis examines whether intellectual capital serves as an intermediary between organizational factors and company performance. The results show that organizational culture positively influences company performance through intellectual capital, with a path coefficient of 0.565 and a highly significant p-value of 0.000 ($p < 0.01$). This indicates strong support for the hypothesis, suggesting that a positive organizational culture enhances intellectual capital, which in turn improves business performance.

Similarly, risk management also has a significant indirect effect on company performance via intellectual capital, with a coefficient of 0.209 and a p-value of 0.040 ($p < 0.05$). This finding implies that effective risk management practices contribute to the accumulation of intellectual capital, which then translates into better firm performance. Overall, the findings highlight the critical mediating role of intellectual capital in converting organizational culture and risk management efforts into measurable improvements in company performance

DISCUSSION

This study reveals that organizational culture and risk management significantly influence company performance in the construction sector, both directly and indirectly, through the mediation of intellectual capital. Conversely, financial restructuring does not exhibit a significant impact on company performance, either directly or indirectly.

Organizational culture plays a pivotal role in shaping intellectual capital within a company. A supportive culture fosters knowledge sharing and collaboration, which are essential for the development of human, structural, and relational capital. Attar et al. (2018) emphasizes that organizational culture positively correlates with intellectual capital, highlighting its importance in knowledge management and organizational success.

In the construction industry, a culture that promotes continuous learning and knowledge exchange can lead to enhanced innovation and problem-solving capabilities. Sucena et al. (2024) found that intellectual capital significantly influences the performance of construction companies, underscoring the need for a conducive organizational culture to harness this potential.

Effective risk management practices are integral to the development and application of intellectual capital. Song et al. (2025) demonstrate that risk management practices, such as risk identification, assessment, and mitigation, positively impact sustainable project performance in the construction industry. These practices contribute to the preservation and enhancement of intellectual capital by creating an environment that supports knowledge sharing and innovation. Furthermore, Bhatti et al. (2021) highlight the moderating role of risk management practices in the relationship between project process management and sustainable project success, indicating that robust risk management frameworks can strengthen the effectiveness of intellectual capital in achieving organizational goals.

Intellectual capital encompasses human, structural, and relational capital, each contributing uniquely to a firm's performance. Human capital involves the skills, knowledge, and experience of employees, structural capital pertains to organizational processes and systems, and relational capital relates to the firm's relationships with external entities. In the construction sector, the strategic management of IC can lead to improved innovation, efficiency, and competitiveness. A study by Sucena et al. (2024) found that intellectual capital significantly influences the performance of construction companies, emphasizing the importance of managing human, structural, and relational capital to achieve higher performance levels.

Intellectual capital not only directly influences company performance but also serves as a mediator in the relationship between other organizational factors and performance outcomes. Moreover, a study by Duodu & Rowlinson (2021) explored the link between intellectual capital and firm performance in construction contracting firms. The research proposed that both exploratory and exploitative innovation mechanisms, facilitated by intellectual capital, contribute to improved firm performance. This highlights the mediating role of intellectual capital in translating innovation efforts into tangible performance outcomes.

Furthermore, empirical research by Gunawan & Widodo (2022) demonstrated that the business performance of construction firms is highly dependent on intellectual capital. The study highlighted that companies with robust intellectual capital management practices tend to outperform their competitors, suggesting that intellectual assets are critical drivers of business success in the construction industry.

CONCLUSION

The study underscores the importance of organizational culture and risk management in enhancing company performance in the construction sector through the development of intellectual capital. While financial restructuring plays a role in addressing immediate financial concerns, it does not significantly contribute to the long-term development of intellectual capital. Therefore, construction companies should prioritize fostering a supportive organizational culture and implementing effective risk management practices to leverage intellectual capital for sustained success.

The empirical studies reviewed affirm that intellectual capital is a critical determinant of company performance in the construction industry. Its components—human, structural, and relational capital—collectively enhance innovation, efficiency, and competitiveness. Furthermore, intellectual capital serves as a mediator, amplifying the effects of other organizational factors on performance outcomes. Therefore, construction companies should prioritize the development and management of intellectual capital to achieve sustainable competitive advantages and superior performance.

REFERENCES

Alshehhi, H. S. M., Mat Sidek, R. S., & Rozali, E. A. (2021). The impact of risk management practices on the performance of construction projects. *Estudios de Economia Aplicada*, *39*(4). https://doi.org/10.25115/eea.v39i4.4164

Asir, M., Yuniawati, R. A., Mere, K., Sukardi, K., & Anwar, M. A. (2023). Peran manajemen risiko dalam meningkatkan kinerja perusahaan: studi manajemen sumber daya manusia. *Entrepreneurship Bisnis Manajemen Akuntansi (E-BISMA)*, *4*(1), 32–42. https://doi.org/10.37631/ebisma.v4i1.844

Attar, M. M., Kang, K., & Sohaib, O. (2018). Organisational culture, knowledge sharing and intellectual capital: Directions for future research. *Proceedings of the 31st International Business Information Management Association Conference, IBIMA 2018: Innovation Management and Education Excellence through Vision 2020*, *9*(1), 852–857. https://doi.org/10.11648/j.ijber.20200901.12

Bhatti, A., Mariam, M., Arif, S., & Younas, S. (2021). The impact of corporate social responsibility on customer loyalty: The mediating role of corporate reputation, customer satisfaction, and trust. *Sustainable Production and Consumption*, *25*(4), 123–135. https://doi.org/10.1016/j.spc.2020.07.019

Boateng, A., Ameyaw, C., & Mensah, S. (2022). Assessment of systematic risk management practices on building construction projects in Ghana. *International Journal of Construction Management*, *22*(16), 3128–3136. https://doi.org/10.1080/15623599.2020.1842962

Bradigan, P. S., & Hartel, L. J. (2019). Organizational culture and leadership: Exploring perceptions and relationships. In *Workplace Culture in Academic Libraries: The Early 21st Century* (Issue March 2012). Woodhead Publishing Limited. https://doi.org/10.1016/B978-1-84334-702-6.50001-0

Daniali, S., Rodionov, D., Mohammadbeigi Khortabi, F., & Mohammadbeki, Y. (2020). Determination of evaluation indicators and establishment of employees performance evaluation system. *IBIMA Business Review*, *2020*. https://doi.org/10.5171/2020.556050

de Frutos-Belizón, J., Martín-Alcázar, F., & Sánchez-Gardey, G. (2019). Conceptualizing academic intellectual capital: definition and proposal of a measurement scale. *Journal of Intellectual Capital*, *20*(3), 306–334. https://doi.org/10.1108/JIC-09-2018-0152

Duodu, B., & Rowlinson, S. (2021). Intellectual Capital, Innovation, and Performance in Construction Contracting Firms. *Journal of Management in Engineering*, *37*(1), 1–17. https://doi.org/10.1061/(asce)me.1943-5479.0000864

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial Least Square Structural Equation Modeling (PLS SEM) Using R*. https://doi.org/10.1007/978-3-030-80519-7_7

Hayat, A., Azeem, M., Nawaz, R., Humayon, A. A., & Ahmed, M. (2019). *Mediating Effect of Human Capital on Organizational Culture , Teamwork , Organizational Development and Organizational Commitment*. *5*(3), 1–9.

Hussain Al-Hashimy, H. N., Said, I., Yusof, N. A., & Ismail, R. (2022). Evaluating the Impact of

Computerized Accounting Information System on the Economic Performance of Construction Companies in Iraq. *Informatica (Slovenia)*, *46*(7), 13–24. https://doi.org/10.31449/inf.v46i7.3920

Irmalasari, E., Gurendrawati, E., & Muliasari, I. (2022). Pengaruh Good Corporate Governance (GCG), dan Corporate Social Responsibility (CSR) Terhadap Nilai Perusahaan Dengan Ukuran Perusahaan dan Leverage Sebagai Variabel Kontrol. *Jurnal Akuntansi, Perpajakan Dan Auditing*, *3*(2), 443–460. https://doi.org/10.21009/japa.0302.11

Komnenić, B., & Pulić, A. (2021). The concept of the intellectual capital: Theoretical contribution to the managerial theory of the firm. *International Journal of Economic Practice and Policy*, *18*(1), 77–94. https://doi.org/10.5937/skolbiz1-34987

Korzhak, V. A. (2023). Methods of Calculating the Indexes of Intellectual Capital of Organizations. *Economic Statistics*, *20*(1), 26–36.

Liu, X. (2019). The role of enterprise risk management in sustainable decision-making: A cross-cultural comparison. *Sustainability (Switzerland)*, *11*(10). https://doi.org/10.3390/su11102939

Muntu, D., Setyawati, R., Riantini, L. S., & Ichsan, M. (2021). Effect of human resources management and advances to improve construction project performance. *Physics and Chemistry of the Earth*, *122*(January 2020), 103000. https://doi.org/10.1016/j.pce.2021.103000

Nugraha, B. A., Soelistya, D., & Desembrianita, E. (2024). The Significance of Work Motivation: The Impact of Organizational Culture and Work Environment on Employee Performance. *Jurnal Manajemen Dan Ilmu Pendidikan*, *6*(1), 265–289. https://doi.org/https://doi.org/10.36088/manazhim.v6i1.4514

Nurmiati, N., Wahyudi, W., Rusydi, B. U., Farild, M., & Bakhtiar, F. (2022). Pengaruh total quality management, dan budaya organisasi terhadap kinerja perusahaan. *Inovasi*, *18*(1), 59–67. https://doi.org/10.30872/jinv.v18i1.10826

Odor, H. O. (2018). Organisational Culture and Dynamics. *International Journal of Scientific Research and Management (IJSRM)*, *6*(01), 31–39. https://doi.org/10.18535/ijsrm/v6i1.em05

Osman, A. M., Liu, Y., & Wang, Z. (2023). Influence of Organizational Culture on Construction Firms' Performance: The Mediating Roles of Innovation and Marketing Capabilities. *Buildings*, *13*(2). https://doi.org/10.3390/buildings13020308

Purwanti, M., & Heriana, N. (2024). Pengaruh Penerapan Manajemen Resiko Terhadap Kinerja Keuangan Perusahaan Konstruksi Yang Terdaftar Di Bursa Efek Indonesia (BEI) Periode 2020-2022. *JEMSI (Jurnal Ekonomi, Manajemen, Dan Akuntansi)*, *10*(5), 2900–2912. https://doi.org/https://doi.org/10.35870/jemsi.v10i5.3233

Rahardi, R., & Johari, G. J. (2022). Manajemen Risiko pada Proyek Bangunan Gedung di Kabupaten Tasikmalaya. *Jurnal Konstruksi*, *19*(2), 411–419. https://doi.org/10.33364/konstruksi/v.19-2.909

Rahayu, I., Ardi, D. S., & Hamdani, R. (2022). Risk Management Disclosure and Their Effect on Banking Firms Value in Indonesia. *Humanities and Social Sciences Letters*, *10*(2), 139–148. https://doi.org/10.18488/73.v10i2.2959

Rani, N. M. S., & Indrayanti, A. . P. (2020). *Analisis Budaya Perusahaan Konstruksi Pt. Bianglala Bali Berbasis Competing Value Framework*. *2*(4), 1–9.

Sasanti, E. E., Animah, & Fikri, M. A. (2023). Pengaruh Corporate Social Responsibility terhadap Nilai Perusahaan dengan Corporate Governance Sebagai Variabel Moderasi. *Jurnal Tata Sejuta STIA Mataram*, *9*(1).

Song, J., Munyinda, M., & Adu Sarfo, P. (2025). Examining the impact of risk management practices on sustainable project performance in the construction industry: the role of

stakeholder engagement. *Frontiers in Built Environment*, *11*(May), 1–15. https://doi.org/10.3389/fbuil.2025.1575827

Songling, Y., Ishtiaq, M., & Anwar, M. (2018). Enterprise Risk Management Practices and Firm Performance, the Mediating Role of Competitive Advantage and the Moderating Role of Financial Literacy. *Journal of Risk and Financial Management*, *11*(3), 35. https://doi.org/10.3390/jrfm11030035

Strelnikova, L. (2022). Formation and use of intellectual capital as a factor of the innovative development of Russian the transport complex enterprises. *Transportation Research Procedia*, *63*, 2053–2063. https://doi.org/10.1016/j.trpro.2022.06.229

Sucena, A., Matos, F., & Nunes, A. (2024). Intellectual Capital in construction SMEs: A Systematic Literature Review. *Journal of Open Innovation: Technology, Market, and Complexity*, 130784. https://doi.org/10.1016/j.joitmc.2024.100276

Taiwan, C. between intellectual capital and business performance of construction industry – an empirical study in. (2022). Intellectual Capital and Corporate Governance Affect Organizational Performance through Competitive Advantage: Evidence from Indonesia. *Quality - Access to Success*, *23*(189), 245–252. https://doi.org/10.47750/QAS/23.189.28

Wijaya, A., & Mulyantini, S. (2023). The Effect of Risk Management Disclosure, Institutional Ownership, and Macroeconomic Sensitivity to Financial Distress in Shipping Companies on the Indonesia …. *AFEBI Management and Business …*, 54–65. http://journal.afebi.org/index.php/ambr/article/view/625%0Ahttps://journal.afebi.org/index.php/ambr/article/download/625/387

Wijayani, D. I. L., Rakim, A. A., Saripujiana, D., & Finanto, H. (2019). Modal Intelektual, Budaya Perusahaan dan Kinerja Keuangan pada Sektor Perbankan Indonesia. *JSHP : Jurnal Sosial Humaniora Dan Pendidikan*, *3*(1), 68–83. https://doi.org/10.32487/jshp.v3i1.553

Yohanes, Margaretha, F., & Sudibyo, Y. A. (2021). Analysis of The Influence of Dynamic Capabilities on company Performance Mediated By Competitive Advantage. *Eduvest – Journal of Universal Studies*, *1*(10), 1007–1020.