

Intellectual Capital and Value of the Firm: A Systematic Literature Review

Anik Malikah^{1*}, Umi Nandiroh²⁾

^{1,2)} Faculty Of Economics And Business, Unvesitas Islam Malang, Malang, Indonesia

*Corresponding Author

Email: anikmalikah_fe@unisma.ac.id

Abstract

This literature review examines the relationship between intellectual capital and corporate value. Intellectual capital is an intangible asset in an organization, including human capital, structural capital, and relational capital. This review aims to provide a comprehensive overview of existing empirical research, theories, and findings related to the impact of intellectual capital on company value. The study used a systematic strategy to identify relevant articles from academic databases and specialized journals. The selected studies are analyzed and synthesized to identify common themes and patterns. The findings show a positive relationship between intellectual capital and firm value, with research consistently showing that intellectual capital contributes to improved financial performance, market value, and competitive advantage. Various measurement and evaluation methods, such as scorecards, valuation techniques, and intellectual property management, have assessed the impact of intellectual capital. The review also highlights the importance of effective management and leveraging intellectual capital for long-term organizational success. However, the literature review identified several research gaps, including the need for more longitudinal studies, industry-specific investigations, and further exploration of how intellectual capital translates into corporate value. Overall, this review contributes to understanding how intellectual capital drives corporate value and provides insights for researchers, practitioners, and policymakers looking to leverage intangible assets for sustainable competitive advantage.

Keywords: *Intellectual Capital, Firm Value, Knowledge Based-View, Human Capital*

INTRODUCTION

In today's knowledge-driven economy, intangible assets have become increasingly crucial for businesses' success and competitive advantage. Intellectual capital is a key driver of firm value among these intangible assets (So & Ratnatunga, 2020). Intellectual capital encompasses an organization's intangible resources, knowledge, and capabilities, including its employees' expertise, innovative processes, patents, brand reputation, and customer relationships (Sanchez Limon et al., 2021). Understanding the relationship between intellectual capital and firm value has garnered significant attention from scholars, practitioners, and policymakers alike.

The concept of intellectual capital acknowledges that traditional measures of a firm's value, such as tangible assets and financial performance indicators, provide an incomplete picture of its overall worth (Widiatmoko et al., 2020). Instead, intellectual capital recognizes that a firm's intangible assets and capabilities play a vital role in creating sustainable competitive advantage, driving innovation, and generating long-term value for stakeholders.

Numerous theoretical perspectives have emerged to explain the impact of intellectual capital on firm value. The Resource-Based View (RBV) emphasizes that a firm's unique and valuable resources, including intellectual capital, enable it to attain and sustain a competitive edge over its rivals (Salvi, Vitolla, Raimo, et al., 2020). According to this view, intellectual capital contributes to a firm's superior performance and, subsequently, its market value. Similarly, the Knowledge-Based View (KBV) emphasizes the significance of knowledge creation, transfer, and application within an organization (Jiang et al., 2022). From the KBV perspective, intellectual capital represents the knowledge assets that a firm possesses, and its effective management and utilization are vital to enhancing the firm's value and market position.

While theoretical frameworks provide a foundation for understanding the link between intellectual capital and firm value, empirical research has sought to examine and validate this relationship. Researchers have explored the various components of intellectual capital, such as human capital (employees' skills and expertise), structural capital (organizational processes and systems), and relational capital (networks and relationships with stakeholders), to assess their impact on firm value (Mondal & Ghosh, 2021; Raimo et al., 2020; Bryl & Fijałkowska, 2020). Furthermore, scholars have developed models and measures to quantify and evaluate intellectual capital, allowing for a more systematic analysis of its influence on a firm's financial performance and market value.

Understanding the role of intellectual capital in shaping firm value is not only academically intriguing but also holds practical implications for managers and decision-makers (De Frutos-Belizón et al., 2019a). Effective intellectual capital management can lead to improved innovation, increased productivity, enhanced reputation, and better strategic positioning. Consequently, firms that recognize and leverage their intellectual capital can gain a competitive edge and create value for their shareholders and other stakeholders (Sears, 2021).

In light of these considerations, this literature review explores the relationship between intellectual capital and firm value. By examining the critical theories, concepts, empirical findings, and measurement approaches in this field, we seek to provide a comprehensive understanding of how intellectual capital contributes to a firm's overall value and competitive advantage.

RESEARCH METHODS

In today's knowledge-driven economy, intangible assets have become increasingly crucial for businesses' success and competitive advantage. Intellectual capital is a key driver of firm value among these intangible assets (So & Ratnatunga, 2020). Intellectual capital encompasses an organization's intangible resources, knowledge, and capabilities, including its employees' expertise, innovative processes, patents, brand reputation, and customer relationships (Sanchez Limon et al., 2021). Understanding the relationship between intellectual capital and firm value has garnered significant attention from scholars, practitioners, and policymakers alike.

The concept of intellectual capital acknowledges that traditional measures of a firm's value, such as tangible assets and financial performance indicators, provide an incomplete picture of its overall worth (Widiatmoko et al., 2020). Instead, intellectual capital recognizes that a firm's intangible assets and capabilities play a vital role in creating sustainable competitive advantage, driving innovation, and generating long-term value for stakeholders.

Numerous theoretical perspectives have emerged to explain the impact of intellectual capital on firm value. The Resource-Based View (RBV) emphasizes that a firm's unique and valuable resources, including intellectual capital, enable it to attain and sustain a competitive edge over its rivals (Salvi, Vitolla, Raimo, et al., 2020). According to this view, intellectual capital contributes to a firm's superior performance and, subsequently, its market value. Similarly, the Knowledge-Based View (KBV) emphasizes the significance of knowledge creation, transfer, and application within an organization (Jiang et al., 2022). From the KBV perspective, intellectual capital represents the knowledge assets that a firm possesses, and its effective management and utilization are vital to enhancing the firm's value and market position.

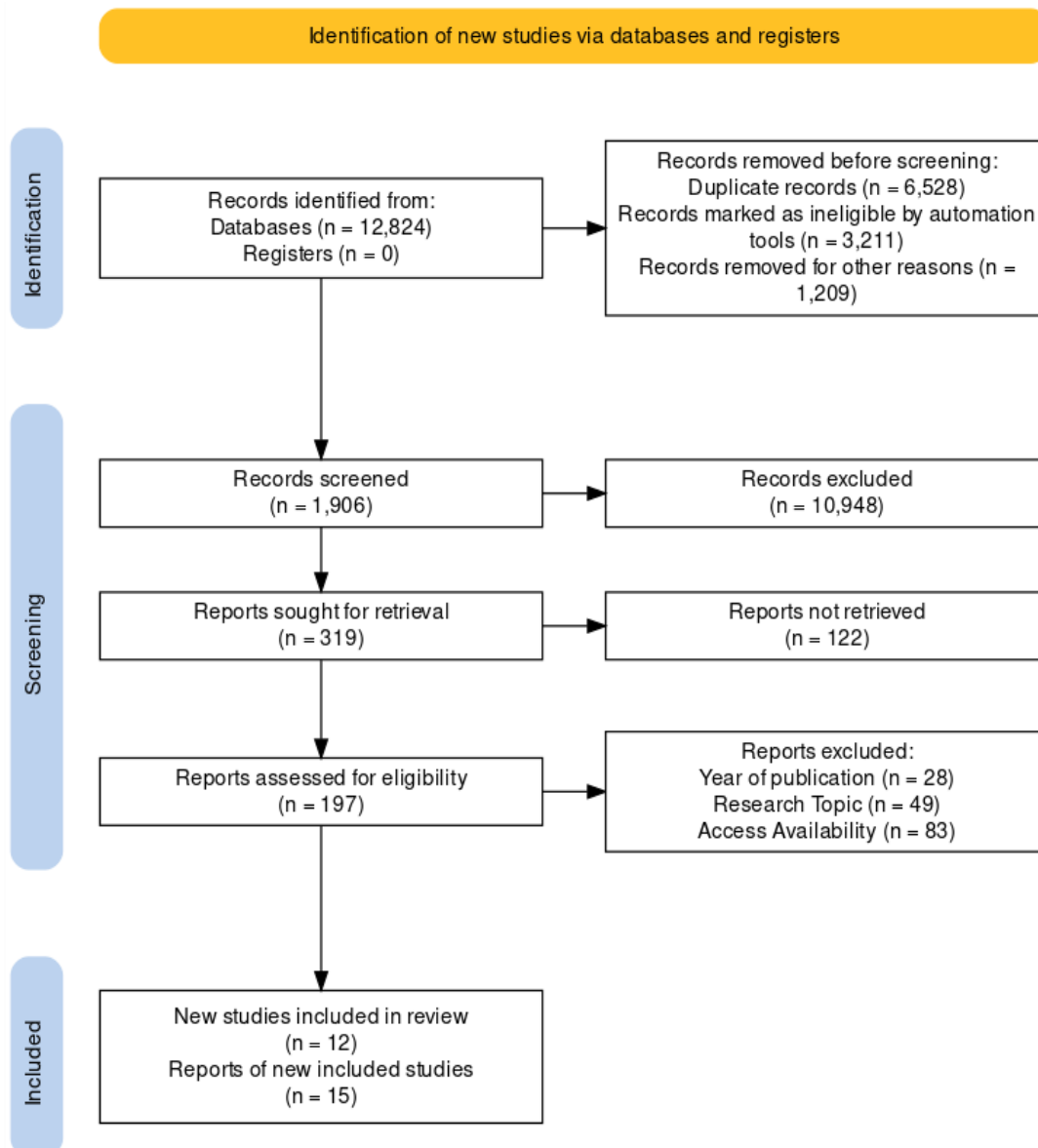
While theoretical frameworks provide a foundation for understanding the link between intellectual capital and firm value, empirical research has sought to examine and validate this relationship. Researchers have explored the various components of intellectual capital, such as human capital (employees' skills and expertise), structural capital (organizational processes and

systems), and relational capital (networks and relationships with stakeholders), to assess their impact on firm value (Mondal & Ghosh, 2021; Raimo et al., 2020; Bryl & Fijałkowska, 2020). Furthermore, scholars have developed models and measures to quantify and evaluate intellectual capital, allowing for a more systematic analysis of its influence on a firm's financial performance and market value.

Understanding the role of intellectual capital in shaping firm value is not only academically intriguing but also holds practical implications for managers and decision-makers (De Frutos-Belizón et al., 2019a). Effective intellectual capital management can lead to improved innovation, increased productivity, enhanced reputation, and better strategic positioning. Consequently, firms that recognize and leverage their intellectual capital can gain a competitive edge and create value for their shareholders and other stakeholders (Sears, 2021).

In light of these considerations, this literature review explores the relationship between intellectual capital and firm value. By examining the critical theories, concepts, empirical findings, and measurement approaches in this field, we seek to provide a comprehensive understanding of how intellectual capital contributes to a firm's overall value and competitive advantage.

Diagram 1. PRISMA Flow Diagram (Haddaway et al., 2022)



RESULT AND DISCUSSION

Components of Intellectual Capital

Intellectual capital comprises three key components, human, structural, and relational. Each element represents a distinct intangible asset contributing to a firm's overall value and competitive advantage. Human capital refers to the knowledge, skills, expertise, and capabilities of individuals within an organization. It encompasses the collective knowledge and competencies employees, managers, and leaders possess. Human capital is developed through education, training, and experience and is embedded in individuals' abilities to solve problems, make decisions, innovate, and contribute to organizational performance.

Human capital is a critical component of intellectual capital as it represents individuals' intellectual and creative potential. It influences a firm's ability to innovate, adapt to change, and execute strategies effectively (Maji & Goswami, 2018). Investments in employee training and development, talent acquisition, and fostering a culture of continuous learning and knowledge sharing are key to nurturing and leveraging organizational human capital (Salvi, et al., 2020).

Structural capital refers to the infrastructure, systems, processes, and intellectual property rights that support the organization's operations. It includes tangible assets such as patents, trademarks, copyrights, databases, software, and organizational routines. Structural capital represents the accumulated knowledge, know-how, and best practices codified and institutionalized within an organization (Vrontis et al., 2020). Structural capital enables the efficient utilization and transfer of knowledge and facilitates the creation of new knowledge. It includes the organizational culture, policies, procedures, and systems that support knowledge sharing, collaboration, and innovation. Effective management of structural capital involves developing knowledge management systems, establishing intellectual property protection mechanisms, and fostering an environment that encourages the creation, retention, and utilization of intellectual assets (Quintero-Quintero et al., 2021).

Relational capital refers to the external relationships, networks, and connections a firm has with its stakeholders, including customers, suppliers, partners, and other organizations. It represents the value derived from trust, reputation, brand image, and the quality of relationships built with various stakeholders over time (Do et al., 2022). Relational capital is crucial for accessing resources, knowledge, and market opportunities beyond the firm's boundaries. Strong relationships with customers enhance customer loyalty, brand equity, and market share. Collaborative partnerships and alliances with suppliers and other organizations provide access to complementary resources, expertise, and innovation capabilities (Kianto et al., 2017). Effective relational capital management involves building and nurturing relationships, establishing strategic alliances, and leveraging networks to enhance the firm's competitive position and create value (Garcia et al., 2018).

These three components of intellectual capital—human capital, structural capital, and relational capital—interact and complement each other to drive firm performance, innovation, and long-term value creation. Recognizing and effectively managing these components are essential for organizations to leverage their intangible assets and gain a competitive advantage in the knowledge-based economy.

Application Intellectual Capital Based on Knowledge-Based View Theory

The Knowledge-Based View (KBV) is a theoretical perspective that emphasizes the role of knowledge and learning capabilities as strategic assets for firms. It emerged as an extension of the Resource-Based View (RBV) and highlights the significance of knowledge creation, acquisition, transfer, and application within an organization.

The KBV argues that knowledge is a unique and valuable resource that can provide a sustainable competitive advantage for firms (González et al., 2017). It goes beyond traditional tangible and financial resources by recognizing that a firm's ability to leverage and effectively utilize knowledge assets is critical to its success and long-term value creation (Stratone, 2023). Key Concepts of the Knowledge-Based View; Knowledge as a Strategic Asset, The KBV considers knowledge a critical strategic asset for firms. It encompasses both explicit understanding, which is codified and can be easily articulated and transferred, and tacit knowledge, which is deeply rooted in individuals' experiences, skills, and expertise. Knowledge assets contribute to a firm's competitiveness by enabling innovation, improving decision-making, and facilitating organizational learning (Flores et al., 2017).

Knowledge Creation and Acquisition. The KBV emphasizes the importance of knowledge creation and acquisition. Firms can create new knowledge through various processes like research and development, experimentation, and collaboration. Additionally, firms can acquire knowledge from external sources, such as suppliers, customers, and partners, through mergers and acquisitions. Effective knowledge creation and acquisition strategies allow firms to stay at the forefront of industry developments and enhance their competitive advantage (Bryl & Fijalkowska, 2019).

Knowledge Transfer and Application. The KBV recognizes that knowledge must be effectively transferred and applied within an organization to generate value. Knowledge transfer occurs through formal and informal channels, including training programs, mentoring, communities of practice, and collaboration platforms (Guthrie et al., 2012). Once knowledge is transferred, its application within the firm's operations, decision-making processes, and innovation activities becomes crucial for realizing its potential value.

Organizational Learning. The KBV emphasizes the importance of organizational learning as a dynamic process that enables firms to acquire, create, assimilate, and apply knowledge continuously. Learning can occur at the individual, team, and organizational levels. It involves acquiring new knowledge, integrating that knowledge into existing knowledge structures, and adapting behaviors, processes, and strategies based on the insights gained. Organizational learning enhances a firm's ability to respond to environmental changes, improve performance, and sustain competitive advantage (Samutachak et al., 2023).

Implications and Applications of the Knowledge-Based View; Knowledge Management, The KBV highlights the need for effective organizational knowledge management practices. This involves capturing, organizing, storing, and disseminating knowledge assets, facilitating knowledge sharing and collaboration, and creating a supportive organizational culture that values and rewards knowledge creation and learning (Hatane et al., 2022).

Innovation and Product Development, The KBV suggests that firms with strong knowledge-based capabilities are more likely to be innovative and develop new products or services. By leveraging their knowledge assets and fostering a continuous learning and exploration culture, firms can generate novel ideas, develop cutting-edge technologies, and introduce innovative solutions that meet customer needs and create value (Costa et al., 2022).

Strategic Alliances and Networks, The KBV encourages firms to establish strategic alliances, partnerships, and networks to access external knowledge and expertise. Collaborative relationships with other organizations enable knowledge exchange, shared learning, and the creation of new knowledge by combining complementary resources and capabilities (Firmansyah & Yusuf, 2020).

Employee Training and Development, The KBV highlights the importance of investing in employee training and development to enhance knowledge assets within the organization. By providing opportunities for learning, skill development, and knowledge-sharing platforms, firms

can foster a knowledge-intensive workforce that contributes to innovation, productivity, and overall firm performance (Dumay & Cai, 2015).

In summary, the Knowledge-Based View emphasizes the strategic significance of knowledge assets and learning capabilities for firms. Organizations can gain a competitive advantage by effectively managing and leveraging knowledge resources, driving innovation, and creating long-term value. The KBV provides insights into how firms can develop and nurture knowledge-based capabilities to adapt to changing environments, enhance performance, and achieve sustained success.

Intellectual Capital and Firm Value

Intellectual capital refers to the intangible assets and resources that contribute to a firm's value and competitive advantage. It encompasses the knowledge, skills, expertise, innovative processes, patents, trademarks, brand reputation, customer relationships, and other intangible elements that are not captured by traditional financial statements. Firm value, on the other hand, represents a company's overall worth and market valuation, reflecting its future earnings potential and attractiveness to investors (Rieg & Vanini, 2023).

The relationship between intellectual capital and firm value is increasingly recognized as critical in today's knowledge-based economy. While tangible assets, such as buildings, machinery, and inventory, have traditionally been seen as the primary drivers of firm value, intellectual capital has emerged as a key determinant of a company's long-term success and competitive position (Ramada & Gouveia, 2020).

Intellectual capital plays a significant role in shaping firm value through various mechanisms; Intellectual capital provides a source of sustainable competitive advantage for a firm. By leveraging their knowledge, expertise, and innovative capabilities, organizations can differentiate themselves from competitors, develop unique products or services, and establish a strong market position. This competitive advantage contributes to the firm's value by attracting customers, generating higher revenues, and creating barriers to entry for potential rivals (Baroroh, 2013).

Innovation and Adaptability, Intellectual capital fuels innovation and adaptation within an organization. The knowledge and expertise of employees, combined with effective knowledge management processes, enable firms to develop new products, improve existing offerings, and respond quickly to changing market conditions. These innovative capabilities enhance a firm's competitiveness, market share, and long-term growth prospects, thereby increasing its value (De Frutos-Belizón et al., 2019b).

Brand Reputation and Customer Relationships, Intellectual capital influences a firm's value, such as brand reputation and customer relationships. A strong brand reputation built on innovation, quality, and customer trust can command premium pricing, attract loyal customers, and increase market share. Additionally, long-term customer relationships based on trust and satisfaction create a sustainable revenue stream and enhance the firm's value (Hamouche, 2021).

Risk Mitigation and Resilience, Intellectual capital plays a role in mitigating risks and enhancing a firm's resilience. With a deep pool of knowledge and expertise, firms are better equipped to anticipate and respond to industry disruptions, changing customer preferences, and emerging market trends. This ability to adapt and navigate uncertainties reduces risks, improves business performance, and safeguards the firm's value (Berzkalne & Zelgalve, 2014).

Employee Productivity and Retention, Intellectual capital includes employees' knowledge, skills, and expertise. Investing in human capital development, training, and talent retention strategies enhances employee productivity and attracts and retains top talent. Highly skilled and motivated employees contribute to organizational success, innovation, and overall firm value (Lerro et al., 2014).

Measuring the precise impact of intellectual capital on firm value can be complex. Various models and frameworks have been developed to quantify and evaluate intellectual capital, such as the Balanced Scorecard, Skandia Navigator, and Intellectual Capital Efficiency model. These approaches provide a structured framework for identifying, assessing, and managing different components of intellectual capital and their contributions to firm value (Weqar et al., 2021).

In conclusion, intellectual capital is a critical driver of firm value in today's knowledge-based economy. Its intangible assets, including knowledge, skills, innovation, and brand reputation, enable firms to gain competitive advantage, innovate, build strong customer relationships, and navigate uncertainties. Understanding and effectively managing intellectual capital can improve financial performance, market position, and long-term value creation for the firm and its stakeholders.

CONCLUSION

The literature review highlights the significance of intellectual capital in shaping firm value. The resource-based and knowledge-based views provide theoretical foundations for understanding how intellectual capital can create competitive advantage and contribute to superior firm performance. While the measurement and evaluation of intellectual capital are still evolving, the empirical evidence supports the positive relationship between intellectual capital and firm value. However, this relationship's exact nature and strength may vary across contexts. Further research is needed to explore the dynamic nature of intellectual capital and its impact on long-term firm value.

Despite an understanding of the importance of intellectual capital, the main challenge lies in accurate measurement and assessment. Various methods have been developed, including financial and non-financial methods, however, sustainability and suitability in specific corporate contexts require further research. It is important to recognize that the effect of intellectual capital on a company's value can vary depending on its business context. For example, the type of industry, the size of a company, and its business strategy can affect the relationship between intellectual capital and a company's value. Although empirical evidence supports a positive relationship between intellectual capital and corporate value, it is also important to understand its long-term impact. Further research can explore how intellectual capital can provide a sustainable competitive advantage and affect a company's long-term performance.

REFERENCES

- Baroroh, N. (2013). *ANALISIS PENGARUH MODAL INTELEKTUAL TERHADAP KINERJA KEUANGAN PERUSAHAAN MANUFAKTUR DI INDONESIA*. 5(2).
- Berzkalne, I., & Zelgalve, E. (2014). Intellectual Capital and Company Value. *Procedia - Social and Behavioral Sciences*, 110, 887–896. <https://doi.org/10.1016/j.sbspro.2013.12.934>
- Bryl, Ł., & Fijałkowska, J. (2019). *Proceedings of the 10th European Conference on Intangibles and Intellectual Capital ECIIC 2019*. Academic Conferences and Publishing Inter Ltd.
- Bryl, Ł., & Fijałkowska, J. (2020). *How does Intellectual Capital Disclosure Affect the cost of Capital? Conclusions from two Decades of Research*. 18(1).
- Costa, C. F. R., Nossa, S. N., Nossa, V., & Oliveira, E. S. (2022). The impact of investment in intellectual capital on firms' profitability. *RAM. Revista de Administração Mackenzie*, 23(5), eRAMR220147. <https://doi.org/10.1590/1678-6971/eramr220147.en>

- De Frutos-Belizón, J., Martín-Alcázar, F., & Sánchez-Gardey, G. (2019a). 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>
- De Frutos-Belizón, J., Martín-Alcázar, F., & Sánchez-Gardey, G. (2019b). 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>
- Demuner Flores, M. D. R., Saavedra García, M. L., & Camarena Adame, M. E. (2017). Medición del capital intelectual en el sector bancario: Aplicación de los modelos Skandia y VAIC. *Innovar*, 27(66), 75–89. <https://doi.org/10.15446/innovar.v27n66.66712>
- Do, M. H., Thanh Tam, V., & Kim-Duc, N. (2022). Investigating intellectual capital: The role of intellectual property rights reform. *Cogent Economics & Finance*, 10(1), 2106630. <https://doi.org/10.1080/23322039.2022.2106630>
- Dumay, J., & Cai, L. (2015). Using content analysis as a research methodology for investigating intellectual capital disclosure: A critique. *Journal of Intellectual Capital*, 16(1), 121–155. <https://doi.org/10.1108/JIC-04-2014-0043>
- Firmansyah, A., & Yusuf, Y. (2020). The Value Relevance of Corporate Disclosures: Social Responsibility, Intellectual Capital, Corporate Governance. *Assets: Jurnal Akuntansi Dan Pendidikan*, 9(1), 61. <https://doi.org/10.25273/jap.v9i1.5128>
- Garcia, V. H. M., Rodriguez, E. Y. F., & Estrada, L. M. M. (2018). Knowledge management model and measurement of intellectual capital in the financial sector. *2018 13th Iberian Conference on Information Systems and Technologies (CISTI)*, 1–7. <https://doi.org/10.23919/CISTI.2018.8399196>
- Guthrie, J., Ricceri, F., & Dumay, J. (2012). Reflections and projections: A decade of Intellectual Capital Accounting Research. *The British Accounting Review*, 44(2), 68–82. <https://doi.org/10.1016/j.bar.2012.03.004>
- Hamouche, S. (2021). Human resource management and the COVID-19 crisis: Implications, challenges, opportunities, and future organizational directions. *Journal of Management & Organization*, 1–16. <https://doi.org/10.1017/jmo.2021.15>
- Hatane, S. E., Tarigan, J., Kuanda, E. S., & Cornelius, E. (2022). The contributing factors of intellectual capital disclosures in agriculture and mining sectors of Indonesia and Thailand. *Accounting Research Journal*, 35(2), 196–218. <https://doi.org/10.1108/ARJ-02-2020-0022>
- Jiang, B., Gu, D., Sadiq, R., Mohsan Khan, T., & Chang, H.-L. (2022). Does the stringency of government interventions for COVID19 reduce the negative impact on market growth? Evidence from Pacific and South Asia. *Economic Research-Ekonomiska Istraživanja*, 35(1), 2093–2111. <https://doi.org/10.1080/1331677X.2021.1934058>
- Kianto, A., Sáenz, J., & Aramburu, N. (2017). Knowledge-based human resource management practices, intellectual capital and innovation. *Journal of Business Research*, 81, 11–20. <https://doi.org/10.1016/j.jbusres.2017.07.018>
- Lerro, A., Linzalone, R., & Schiuma, G. (2014). Managing intellectual capital dimensions for organizational value creation. *Journal of Intellectual Capital*, 15(3), 350–361. <https://doi.org/10.1108/JIC-05-2014-0063>
- Maji, S. G., & Goswami, M. (2018). IC disclosure practices in India using a comprehensive disclosure framework: A study of knowledge-based companies. *Journal of Indian Business Research*, 10(4), 345–363. <https://doi.org/10.1108/JIBR-01-2017-0011>
- Mondal, A., & Ghosh, C. (2021). Effect of intellectual capital disclosure on cost of equity capital: A study on Indian companies. *Asian Journal of Accounting Research*, 6(2), 165–179. <https://doi.org/10.1108/AJAR-08-2020-0069>

- Quintero-Quintero, W., Blanco-Ariza, A. B., & Garzón-Castrillón, M. A. (2021). Intellectual Capital: A Review and Bibliometric Analysis. *Publications*, 9(4), 46. <https://doi.org/10.3390/publications9040046>
- Raimo, N., Ricciardelli, A., Rubino, M., & Vitolla, F. (2020). Factors affecting human capital disclosure in an integrated reporting perspective. *Measuring Business Excellence*, 24(4), 575–592. <https://doi.org/10.1108/MBE-05-2020-0082>
- Ramada, O. T., & Gouveia, L. B. (2020). Why is the Intellectual Capital today more important than ever? *2020 15th Iberian Conference on Information Systems and Technologies (CISTI)*, 1–5. <https://doi.org/10.23919/CISTI49556.2020.9141003>
- Rieg, R., & Vanini, U. (2023). Value relevance of voluntary intellectual capital disclosure: A meta-analysis. *Review of Managerial Science*. <https://doi.org/10.1007/s11846-023-00630-3>
- Salvi, A., Vitolla, F., Giakoumelou, A., Raimo, N., & Rubino, M. (2020). Intellectual capital disclosure in integrated reports: The effect on firm value. *Technological Forecasting and Social Change*, 160, 120228. <https://doi.org/10.1016/j.techfore.2020.120228>
- Salvi, A., Vitolla, F., Raimo, N., Rubino, M., & Petruzzella, F. (2020). Does intellectual capital disclosure affect the cost of equity capital? An empirical analysis in the integrated reporting context. *Journal of Intellectual Capital*, 21(6), 985–1007. <https://doi.org/10.1108/JIC-12-2019-0283>
- Samutachak, B., Ford, K., Tangcharoensathien, V., & Satararужи, K. (2023). Role of social capital in response to and recovery from the first wave of COVID-19 in Thailand: A qualitative study. *BMJ Open*, 13(1), e061647. <https://doi.org/10.1136/bmjopen-2022-061647>
- Sanchez Limon, M. L., Sanchez Tovar, Y., & Jasso Villazul, J. (2021). Caracterización del capital intelectual en las universidades publicas. Estudio comparativo. *International Journal of Professional Business Review*, 6(1), e203. <https://doi.org/10.26668/businessreview/2021.v6i1.203>
- Sears, C. (2021). *Intellectual Capital's Impact on Corporate Performance During the Age of Digitalization and the COVID-19 Pandemic*.
- So, M., & Ratnatunga, J. (2020). A Normative Approach to Valuation, Value Enhancement and Financial Statement Reporting of Intellectual Capital. *Management Accounting Frontiers*, 3, 25–52. <https://doi.org/10.52153/prj1022004>
- Stratone, M.-E. (2023). *MAPPING THE IMPACT OF THE INTELLECTUAL CAPITAL ON THE AGILITY AND PERFORMANCE OF AN ORGANIZATION: A BIBLIOMETRIC STUDY*. 17(1).
- Weqar, F., Sofi, Z. A., & Haque, S. M. I. (2021). Nexus between intellectual capital and business performance: Evidence from India. *Asian Journal of Accounting Research*, 6(2), 180–195. <https://doi.org/10.1108/AJAR-07-2020-0064>
- Widiatmoko, J., Indarti, M. G. K., & Pamungkas, I. D. (2020). Corporate governance on intellectual capital disclosure and market capitalization. *Cogent Business & Management*, 7(1), 1750332. <https://doi.org/10.1080/23311975.2020.1750332>