THE IMPACT OF INTELLECTUAL CAPITAL ON CORPORATE MARKET VALUE AND COMPETITIVE ADVANTAGE: A CROSS-SECTORAL LITERATURE REVIEW

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ABSTRACT

This study explores the role of intellectual capital (IC) in enhancing corporate market value and achieving competitive advantage across various industry sectors. The growing emphasis on knowledge-based assets highlights the strategic importance of IC as a driver of innovation and long-term value. Although prior studies have demonstrated the positive relationship between IC and firm performance, there is a lack of cross-sectoral insight, especially within emerging market economies, and limited focus on IC's impact beyond financial metrics. Unlike prior literature which often centers on single-industry or country-specific contexts, this paper conducts a cross-sectoral review, identifying comparative insights, methodological limitations, and conceptual gaps in the understanding of IC's influence on competitive advantage. The research employs a qualitative descriptive method in the form of a systematic literature review. It draws from top academic databases such as google scholar and neliti website. Thematic analysis was applied to identify patterns, gaps, and implications IC positively affects firm value in knowledge-intensive sectors like banking, while its impact is limited or inconsistent in industries such as plantations and financial services. Human capital emerges as the most influential component. The literature also highlights a heavy reliance on the VAIC™ (Value Added Intellectual Coefficient) model and limited focus on strategic, non-financial outcomes. Intellectual capital plays a strategic role in value creation across sectors. However, to fully leverage its potential, future research must expand in scope, method, and conceptual framing to reflect the evolving dynamics of global and knowledge-based economies.

Keywords: intellectual capital, market value, competitive advantage, cross-sectoral analysis

INTRODUCTION

Business activities continue to evolve as one of the effects of economic globalization, which has triggered free competition among economic and business actors. Companies must transform their labor-based businesses into knowledge-based businesses, with the main characteristic being knowledge (Awaliyah. et al., 2016). Knowledge assets have become structurally more important in value creation due to a shift from a labor-based to knowledge-based economy. This, in turn, means that physical and financial assets have become fewer dominant explanations of business success. (So, & Ratnatunga, 2020, p. 26)

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 (Malikah & Nandiroh, 2024, p. 2170).

Following the publication of PSAK No. 19 (updated 2012) on intangible assets, Indonesia started to develop its intellectual capital. Nevertheless, the disclosure of intellectual capital in Indonesia is still seen as inadequate, even after the publication of PSAK No. 19 (updated 2012) and the growth of intellectual capital in Indonesia (Annisa, 2019, p. 434). This is a result of companies incomplete understanding of how crucial intellectual capital is to preserving their competitive edge. Intellectual capital allows companies to become more competitive and motivates management, as well as employees, to improve company activities.

Intellectual Capital as A Strategic Assets

In the modern knowledge-based economy, intellectual capital (IC) has increasingly been recognized as a core intangible asset contributing to organizational performance, innovation, and sustainable competitive advantage (So & Ratnatunga, 2020; Sanchez Limon et al., 2021). IC broadly comprises three main components: human capital, structural capital, and relational capital. These elements collectively enhance firms' capacity to generate value beyond what is captured by physical and financial assets.

The relevance of IC to firm valuation has been widely explored across industries and geographies. For example, Adimora et al. (2024) examined the effect of human, structural, and capital employed management on the market value and found mixed effects, while human capital positively influenced market value, structural and capital employed components showed negative effects. This contrasts with findings from developed economies, where IC components typically have a uniformly positive relationship with market value (Pedro et al., 2018; Barajas & Molodchik, 2017).

Pulic's VAIC™ model has been frequently employed to assess IC efficiency by integrating value-added contributions from capital employed (VACA), human capital (VAHU), and structural capital (STVA) (Ulum, 2008). Studies in the Indonesian banking sector affirm that IC positively affects firm value, particularly when measured by market-based indicators such as Price-to-Book Value (PBV) and Earnings Per Share (EPS). However, results across sectors and geographies remain inconclusive.

H_1: Intellectual capital has a significant positive effect on corporate market value across industry sectors.

The Relationship between Intellectual Capital and Competitive Advantage

Competitive advantage is the ability that enables a company to differentiate itself or individuals from its competitors. Competitive advantage in organizations has shifted from being based on tangible assets to intangible assets. Intellectual capital and the right tangible assets can create core competencies that will enhance organizational capabilities. (Tanoni, A.N. et al 2016) Thus, it can be concluded that intellectual capital is one component of organizational capabilities, where organizational capabilities are components that can influence the competitive advantage of an organization in a business environment. Therefore, intellectual capital has a positive influence on an organization's competitive advantage.

H_2: There is a positive influence between intellectual capital and competitive advantage.

LITERATURE REVIEW

Grounded in the Resource-Based View (RBV) and Knowledge-Based View (KBV), IC is posited as a rare, inimitable, and non-substitutable resource that underpins sustained competitive advantage (Salvi et al., 2020; Jiang et al., 2022). Empirical research highlights that firms investing in IC capabilities, such as employee training, knowledge systems, and customer relationship networks, are better positioned to innovate and respond to environmental dynamism, thereby outperforming rivals (Duru et al., 2018; Haruna, 2022).

Yet, despite its theorized importance, many firms in developing economies underutilize or underreport IC in financial statements, leading to a valuation gap and inefficient resource allocation (Annisa, 2019; Malikah & Nandiroh, 2024)

Despite a growing body of research on intellectual capital, several important gaps remain in the literature that limit a comprehensive understanding of its impact on corporate market value and competitive advantage. One of the most prominent gaps lies in sectoral representation. The majority of existing studies tend to focus on specific industries such as banking, manufacturing, or information technology, sectors that are traditionally more knowledge-intensive or data-accessible. This results in a sectoral bias that underrepresents other industries, such as services, agriculture, or conglomerates, where intellectual capital may also play a critical but less visible role. More importantly, there is a scarcity of cross-sectoral comparative studies, particularly within emerging market contexts, where the dynamics of IC utilization and reporting may differ significantly due to institutional and developmental factors.

Another major gap is methodological in nature. Many studies rely heavily on the Value-Added Intellectual Coefficient (VAIC™) model developed by Pulic, which, while widely used for its simplicity and comparability, has faced considerable criticism. Scholars argue that VAIC™ may inadequately capture key aspects of intellectual capital, most notably relational capital (e.g., customer relationships and networks) and dynamic capabilities (e.g., adaptability, innovation). This over-reliance on a single model may limit the depth of analysis and overlook important qualitative dimensions of IC.

A temporal limitation is also evident across the literature. Most studies utilize cross-sectional data or single-year analysis, which makes it difficult to understand how intellectual capital evolves over time and how long-term investments in IC contribute to sustained market value. Longitudinal designs and multi-period studies are essential to assess the enduring strategic significance of IC, especially in volatile or transforming industries.

METHOD, DATA, AND ANALYSIS

This study adopts a qualitative descriptive methodology through a systematic cross-sectoral literature review. The goal is to synthesize and analyze scholarly perspectives on the role of intellectual capital (IC) in shaping corporate market value and competitive advantage across different industries. A qualitative approach is appropriate because it allows for in-depth exploration of conceptual frameworks, methodological patterns, and thematic insights that are often underrepresented in purely quantitative reviews.

Data Analysis (Cross-Sectoral Insights)

The thematic analysis of three sector-specific studies such as banking, plantation, and financial services, reveals significant variations in how intellectual capital (IC) impacts different performance metrics, illustrating the need for a cross-sectoral approach in IC research.

Banking Sector

In the banking sector, (Awaliyah, N., & Safriliana, R., 2016) examined the relationship between VAIC™ and firm value as measured by Price to Book Value (PBV) and Earnings Per Share (EPS). Using data from 24 banks listed on the Indonesia Stock Exchange (IDX) between 2011 and 2015, they found that intellectual capital had a positive and statistically significant effect on both PBV and EPS. The regression models yielded:

$$PBV = -0.222 + 0.613 * VAIC™$$

$$EPS = 0.993 + 1.711 * VAIC™$$

These results affirm the relevance of IC in enhancing both market valuation and shareholder profitability in capital-intensive service industries such as banking. However, the coefficient of determination (R^2) was relatively low (10% for PBV, 14.1% for EPS), indicating that IC explains only a portion of firm value variation, with other external factors likely playing a larger role.

Plantation Sector

In contrast, the plantation sector study by (Arifulsyah & Nurulita, 2020) showed that intellectual capital, although theoretically important, did not significantly affect financial performance (measured by Return on Assets). This result suggests that in resource-intensive sectors where performance heavily relies on tangible assets and environmental conditions, the contribution of IC may be less direct or measurable. The study also introduced firm size as a moderating variable but found that it could not moderate the relationship between IC and financial performance. This implies structural and operational constraints in agricultural industries that limit the value creation potential of intangible assets.

Financial Institutions Sector

In the financial institutions sector, (Nilamsari & Supatmi, 2012) found that intellectual capital was not significantly related to capital gain, though capital employed efficiency (VACA) showed a significant negative impact on market value. This result deviates from the expected positive relationship and suggests a paradox: higher capital employed efficiency may imply underinvestment in relational or human capital, which could hinder stock performance from the investor's perspective. The study reveals sectoral nuances where investor perception and market signaling play a more dominant role than IC's intrinsic value-adding capability.

RESULT AND DISCUSSION

These findings confirm that the banking sector is the most responsive to intellectual capital, benefiting directly from strategic investment in human talent, organizational systems, and intangible knowledge processes. The formalized and regulated structure of banking supports the integration of IC practices, and its outcomes are more visible in both market and financial performance indicators. On the other hand, sectors like agriculture and non-bank financial services reveal more complex dynamics. In plantation-based firms, IC may be underutilized or its benefits obscured by operational dependencies on environmental and resource-based factors.

Sectoral differences underscore the importance of contextualizing IC research, especially in emerging economies. The findings also highlight a broader concern: the current reliance on the VAIC™ model often fails to account for relational capital and non-financial outcomes, limiting the depth and nuance of IC evaluation. Moreover, the absence of longitudinal studies hampers our understanding of how IC evolves and accumulates strategic value over time.

These results highlight that intellectual capital is not a universally potent driver of performance, but rather a context-sensitive enabler. In sectors where human and knowledge assets are core to operations, such as banking and IT, IC has clear and measurable effects. However, in asset-heavy or process-driven industries like agriculture or plantations, IC's contribution is more indirect and potentially harder to quantify.

CONCLUSION

This study aimed to explore the cross-sectoral impact of intellectual capital (IC) on corporate market value and competitive advantage. Through a systematic literature review of several peer-reviewed articles across various industries and regions, the research highlights the strategic importance of IC, comprising human, structural, and relational capital, in shaping organizational performance and positioning in knowledge-driven economies.

The findings consistently demonstrate that intellectual capital plays a critical role in knowledge-intensive sectors, particularly banking and finance, where human expertise, information systems, and institutionalized processes are central to service delivery and value creation. In such contexts, IC contributes significantly to firm value as measured by financial indicators like Price-to-Book Value (PBV) and Earnings Per Share (EPS). These outcomes are supported by studies employing the VAIC™ model, which, despite its limitations, offers a standardized tool for measuring the efficiency of value-added components.

However, the influence of IC is not uniformly positive across all sectors. In asset-intensive industries such as plantations and traditional manufacturing, where value creation is driven more by physical resources and environmental factors, the contribution of IC appears to be minimal or indirect. Similarly, in capital-market-facing institutions, such as non-bank financial firms, the effect of IC is influenced by external investor perceptions, and in some cases, capital employed efficiency was even negatively associated with capital gains. These discrepancies emphasize that the impact of IC is highly contingent upon the sectoral context, operational models, and strategic orientation of the firm. Moreover, the review exposes significant methodological and conceptual limitations in existing literature. Most studies rely heavily on the VAIC™ model and financial metrics, with limited exploration of strategic, non-financial

outcomes such as innovation, market differentiation, or relational strength. Longitudinal research designs are scarce, which restricts the ability to observe the dynamic evolution of IC over time.

IMPLICATIONS/LIMITATIONS AND SUGGESTIONS

The divergence in findings also reflects the limitations of prevailing measurement models. VAIC™, though widely used, oversimplifies the dynamic and interrelated nature of IC components. For example, relational capital, often a key factor in sustaining competitive advantage, is rarely included in quantitative assessments, leaving a critical strategic gap.

This study emphasizes the need for sector-sensitive IC strategies, especially in emerging markets. It highlights limitations in current models, particularly the overuse of VAIC™, and calls for broader measurement frameworks that capture non-financial outcomes. Future research should explore longitudinal and mixed-method approaches while expanding coverage to underrepresented sectors and strategic performance indicators.

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