

## Current Advancement in Intellectual Capital and Financial Performance

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### Abstract

*Although conventional wisdom suggests that natural resources play a vital role in fostering economic growth, empirical studies have shown that access to these resources alone is insufficient to drive development. In the contemporary landscape of knowledge management, Intellectual Capital (IC) is increasingly recognized as an indispensable factor contributing to both business and societal advancement. This conceptual study explores the intricate interplay between intellectual capital and financial performance, unraveling the profound implications of intangible assets on organizational success. In an era dominated by the knowledge economy, the study investigates the multifaceted nature of intellectual capital, dissecting its three core components—human capital, structural capital, and relational capital. Drawing on a synthesis of theoretical frameworks and empirical insights, the research illuminates the nuanced relationships between intellectual capital and financial metrics.*

**Keywords:** Intellectual Capital, knowledge Economy. Human Capital, Economic Growth, Natural Resources.

### 1. Statement of Problem

In the realm of contemporary business dynamics, the pivotal role of intellectual capital in shaping firm performance has garnered substantial attention. However, as businesses increasingly operate in knowledge-intensive environments, a critical gap persists in our understanding of the nuanced relationship between intellectual capital and tangible organizational outcomes. Existing literature lacks a unified and comprehensive theoretical foundation, leaving the conceptual underpinnings ambiguous and impeding the development of effective strategies. Furthermore, the challenge of measuring the diverse and intangible nature of intellectual capital components hinders accurate assessments of its impact on firm performance. The contextual variations across industries and organizational settings add another layer of complexity, necessitating a deeper exploration of how these factors shape the relationship between intellectual capital and performance. As highlighted by Pillania (2005), the knowledge component contributes significantly to the development costs of goods in the manufacturing sector, accounting for approximately 70 percent, and can be as high as 90 percent for the service sector. Given this understanding, it is not immediately apparent why the relationship between intellectual capital and financial performance should only be explored in knowledge-intensive sectors like IT, pharmaceuticals, and banking while excluding other industries and service sectors such as manufacturing, real estate, infrastructure, and hotels.

Additionally, the dynamic nature of intellectual capital and its interactions with other organizational elements remain underexplored, hindering the development of adaptable strategies that align with its evolving nature. Establishing clear causality and directionality in the relationship between intellectual capital and firm performance is a fundamental yet unresolved issue. This conceptual paper aims to address these challenges and contribute to both academic discourse and practical insights for managers and policymakers seeking to leverage intellectual capital for sustainable organizational success.

### 2. Introduction

Even though it's often believed that having access to natural resources is essential for economic progress, empirical research has shown that development requires more than simply these resources. In the modern information management era, IC is widely seen as an essential element of company and social development. According to (Abell, 1999), businesses can function well in their current environment provided they have new skills that allow them to gather, arrange, share, and use information and experience. It is common knowledge that acquiring advanced skills that foster innovation is a strategic asset and that information is becoming a more significant component of competitive advantage (Tidd and Hull, 2006; Wang and Ahmed 2007).

The present accounting guidelines do not recognize intellectual capital as a resource but have defined

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intellectual assets very restrictedly. Intangible assets, according to International Accounting Standards (38), can be defined as "an identifiable non-monetary asset without physical substance" The American Financial Accounting Standards Board (FASB) further categorizes intangible assets into seven groups, namely market, customer, technology, workforce, contact, organization, and statutory based assets. "Besides non-physical existence, intangible assets have two more distinct characteristics-firstly, the ability to self-renew even when they have been used and, secondly, the ability to change, thereby increasing the stock even when that assets are in use (Diefenbach, 2006)." Thomas A. Stewart, with his tremendous contribution to intellectual capital, propagated the importance of knowledge as an indispensable asset for creating wealth. Leif Edvinsson, head of intellectual capital at Skandia, was among the few who believed in bringing hidden values to the surface. Edvinsson (1997) emphasized the need for a new logic regarding the development of knowledge-intensive industries based on a straightforward metaphor of a tree with fruit as well as roots. He believed that a company, for long-run sustenance, needs to nurture its roots rather than just harvesting the fruit, and intellectual capital would serve as an essential ingredient in the nourishment and renewal of a company. With his efforts, the first Intellectual Capital report got published in 1994."

The assessment of intellectual capital is critical for its management. It has been said that if we cannot measure it, we cannot manage it. Practitioners have suggested different models for measuring the IC. Intangibles are challenging to quantify, which is the most significant impediment to their estimation. Since it does not emerge from regular transactions, the valuation of IC is fundamentally different. Using conventional performance measurement techniques can lead investors to make incompatible decisions, particularly when companies have a large share of their investment in intangible assets (Fier & Stainbank, 2003). In the new technological era, information, knowledge, experiences, etc., collectively known as intellectual capital, form the basis for success. Intangible assets are the keys to creating and maintaining the market's competitive edge (Ghosh & Mondal, 2009). A resource is shown to be strategic as it distinguishes itself from others by difficulties in imitation, substitution, and impaired mobility. The IC is seen as a strategic resource in the same way as resource-based theory considers the capital employed (physical and financial) as a strategic resource (Barney, 1991 and Wernerfelt, 1984).

### 3. Literature Review

**Rehman et al. (2021)** analysed the link between the intellectual capital efficiency measured in terms of (human capital efficiency, structural capital, and relational capital efficiency) and 129 Islamic banking performance (in terms of operational performance, financial and market performance) for ten years (2008-

2017). The data obtained from 129 Islamic banks in 29 Muslim countries is analyzed using a two-step system generalized method of moments (2SYS-GMM) estimator. The study shows that their investment primarily influences Islamic banks' (IBs') success in ICE. The findings show that structural capital efficiency (SCE) and relational capital efficiency (RCE) are the most critical value drivers in Islamic banks' high performance. The findings show that human capital efficiency (HCE) has a negative impact on IB results. The bank's size and foreign ownership have also been described as essential factors in IB's success. This research aids IBs in maintaining their ICE reserves, which are the primary drivers of competitive advantage and increased bank productivity.

**Ge and Xu (2020)** examined the link between intellectual capital (IC) and business performance and multiple regression models (panel data analysis-fixed and random effects models) are used to analyze data from 204 Chinese pharmaceutical businesses publicly traded between 2013 and 2018. According to the data, the aggregate IC benefits firm earnings, profitability, corporate return, and productivity. Surprisingly, IC negatively affects market value while not affecting sales growth.

**Ni et al. (2020)** apply panel data models (fixed effect and random effect models) and Petersen regression models to investigate the link between intellectual capital and firm value (Tobin's Q) of Taiwan stock exchange listed companies for the period of five years(2009-2013). The study found a significant positive association between intellectual capital, human capital, innovation capital, and firm value but negative relation with assets turnover ratio and capital ratio (Process capital).

**Oppong and Pattanayak (2019)** used the VAIC methodology. They tried to investigate whether an investment in intangible assets (intellectual capital) increased the productivity of Indian banks in terms of employee productivity and asset turnover for 12 years (2006-2017). For the analysis, the study applies a fixed and random effects regression model on the sample of 73 commercial banks (private, public, and foreign banks). Panel regression results show that intellectual assets (VAIC) and their determinants (HCE, SCE & CEE) influence the asset turnover (ATO). The study also depicts that investment in intellectual capital is positively related to the productivity of the employees, and in the case of IC components, capital employed efficiently positively influences the employee productivity (EP) of the selected banks.

**Madhur (2018)** used the pulic original value-added intellectual coefficient (VAIC) model to measure the intellectual capital performance of 43 Indian commercial banks for the period ranging from 1998-2015. The study's findings conclude that foreign banks are better than private and public sector banks in terms of the average value-added coefficient. Among the value-added elements, it is observed that human capital efficiency had a significant role, followed by capital and structural capital efficiency.

**Ahmad and Ahmed (2016)** used VAIC™ to measure intellectual capital performance. Also, they tried to examine the effect of value-added efficiency on the financial performance of 78 Pakistani financial firms over six years (2008-2013). The study applies panel data regression models (fixed and random effect models) to analyze the variables' relationship. Regression results indicate that human capital efficiency (HCE) plays a significant role in intellectual capital efficiency compared to structural and physical capital efficiency (CEE). HCE and CEE are both components of IC positively and significantly associated with ROE, EPS & ROA.

**Shiri and Mousavi (2015)** used panel analysis to examine the association between intellectual capital, its components, and productivity and the market value added of 29 companies over five years (2007-2011). The overall result indicates that intellectual capital (VAIC) and its elements are positively and significantly associated with the productivity and market value added of the selected Tehran companies.

#### 4. Objectives of the Research undertaken

To provide a comprehensive review of existing literature on intellectual capital and financial performance, both globally and within the Indian context, to establish the current state of knowledge.

#### 5. Research Methodology

- **Nature of Research study:** The above study is conducted using the descriptive research design. Here the authors attempted to elaborate the role of intellectual capital in the financial performance of companies.
- **Methods of data collection:** Secondary sources of data collection are used in this study. Mainly the data is collected from research articles, magazines and internet websites.

#### Conclusion

In conclusion, this conceptual study delves into the intricate relationship between intellectual capital and financial performance, shedding light on the crucial role that intangible assets play in shaping an organization's economic success. The exploration of intellectual capital as a dynamic and multifaceted concept underscores its significance as a source of competitive advantage and a driver of financial prosperity. As organizations evolve in the knowledge economy, recognizing the value of intellectual capital becomes paramount for sustained growth and resilience.

The synthesis of theoretical frameworks and empirical evidence presented in this study underscores the nuanced interplay between intellectual capital components—human capital, structural capital, and relational capital—and their impact on financial metrics.

The findings highlight the need for organizations to adopt a holistic approach to managing and leveraging their intellectual capital, as opposed to viewing it as a static resource. Continuous investment in employee development, innovation, and collaborative networks emerges as pivotal for enhancing intellectual capital and, consequently, achieving superior financial performance. Moreover, the study emphasizes the importance of strategic alignment between intellectual capital management practices and organizational goals. Fostering a culture that encourages knowledge creation, sharing, and application fosters a positive feedback loop between intellectual capital development and financial outcomes. The integration of intellectual capital considerations into strategic planning and decision-making processes emerges as a key recommendation for organizations aspiring to thrive in a knowledge-intensive environment. While acknowledging the complexity and context-specific nature of the relationship between intellectual capital and financial performance, this study lays the groundwork for future research and practical implications. The conceptual framework provided here serves as a springboard for empirical investigations and encourages organizations to tailor their intellectual capital strategies to their unique contexts. In essence, the insights gleaned from this study underscore the imperative for organizations to recognize intellectual capital as a cornerstone for sustainable competitive advantage and financial success in the contemporary business landscape.

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