

ENHANCING FIRM VALUE: ANALYZING INTELLECTUAL CAPITAL, CAPITAL STRUCTURE, AND PROFITABILITY IN INDONESIA

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ABSTRACT

This study investigates the impact of Intellectual Capital (IC), Capital Structure (CS), and Profitability (PR) on Firm Value (FV), with profitability acting as a mediating variable. Utilizing a quantitative approach, secondary data from 190 observations of consumer goods companies listed on the Indonesia Stock Exchange (IDX) were analyzed through SmartPLS. Companies experiencing losses or conducting IPOs during the research period were excluded. Firm value was proxied by Return on Assets (ROA), a key indicator of a firm's efficiency in generating profits from its assets. IC was measured using the Value-Added Intellectual Coefficient (VAIC), comprising Human Capital Efficiency (HCE), Capital Employed Efficiency (CEE), and Structural Capital Efficiency (SCE). Capital Structure was measured using the Debt-to-Equity Ratio (DER), and profitability was assessed via Price-to-Book Value (PBV). The results revealed that Intellectual Capital significantly enhances both profitability and firm value, highlighting the role of intangible assets in firm performance. Capital Structure exhibited a negative direct effect on firm value but positively influenced profitability. Profitability, in turn, had a strong positive effect on firm value, underscoring its mediating role in the relationship between IC, CS, and FV. These findings emphasize the importance of effective management of intellectual and capital resources in maximizing firm value in the consumer goods sector in Indonesia.

Keywords: Intellectual Capital, Capital Structure, Profitability, Firm Value, Return on Assets

ABSTRAK

Penelitian ini mengkaji pengaruh Intellectual Capital (IC), Capital Structure (CS), dan Profitability (PR) terhadap Firm Value (FV), dengan profitabilitas sebagai variabel mediasi. Dengan menggunakan pendekatan kuantitatif, data sekunder dari 190 observasi perusahaan barang konsumsi yang terdaftar di Bursa Efek Indonesia (BEI) dianalisis melalui SmartPLS. Perusahaan yang mengalami kerugian atau melakukan IPO selama periode penelitian tidak dimasukkan dalam penelitian. Nilai perusahaan diproksikan dengan Return on Assets (ROA), indikator utama efisiensi perusahaan dalam menghasilkan laba dari asetnya. IC diukur menggunakan Value-Added Intellectual Coefficient (VAIC), yang terdiri dari Human Capital Efficiency (HCE), Capital Employed Efficiency (CEE), dan Structural Capital Efficiency (SCE). Capital Structure diukur menggunakan Debt-to-Equity Ratio (DER), dan profitabilitas dinilai melalui Price-to-Book Value (PBV). Hasil penelitian menunjukkan bahwa Modal Intelektual secara signifikan meningkatkan profitabilitas dan nilai perusahaan, yang menyoroti peran aset tak berwujud dalam kinerja perusahaan. Struktur Modal menunjukkan efek langsung negatif pada nilai perusahaan tetapi secara positif memengaruhi profitabilitas. Profitabilitas, pada gilirannya, memiliki efek positif yang kuat pada nilai perusahaan, yang menggarisbawahi peran mediasinya dalam hubungan antara IC, CS, dan FV. Temuan ini menekankan pentingnya manajemen sumber daya intelektual dan modal yang efektif dalam memaksimalkan nilai perusahaan di sektor barang konsumsi di Indonesia.

Kata Kunci: Modal Intelektual, Struktur Modal, Profitabilitas, Nilai Perusahaan, Return on Assets

INTRODUCTION

In corporate finance, intellectual capital has attracted considerable attention due to its potential to enhance firm value. Intellectual capital includes intangible assets such as knowledge, expertise, and relationships that are not visible on a company's balance sheet but can play a crucial role in increasing its value (A. H. Nguyen & Doan, 2020). Numerous studies have explored the link between intellectual capital and firm value to understand how it impacts company performance and profitability (Chen et al., 2005; Maditinos et al., 2011). Despite the growing research on intellectual capital, there is still a gap in understanding how it interacts with other critical financial elements, such as capital structure and profitability, especially within the consumption sector. While previous studies have looked at the effects of intellectual capital on firm value in specific industries like banking in Indonesia or software in India (Parimarma & Kufepaksi, 2023; Ghosh & Mondal, 2009), there is a lack of comprehensive research that combines intellectual capital with capital structure and profitability, providing a holistic view of value creation in firms, particularly in the consumption sector (Filipe Sardo & Zelia Serrasqueiro, 2017). This gap suggests the need for research into how intellectual capital, capital structure, and profitability collectively contribute to firm value in the consumption sector. Although existing studies have focused on the individual impacts of these factors on firm value (Mulyasari & Murwaningsari, 2019; Natsir & Yusbardini, 2020), further research is needed to examine their combined effects and interactions. Understanding how these factors complement each other is essential for companies in the consumption sector to develop strategies that optimize value creation. Hence, the main research question is: How do intellectual capital, capital structure, and profitability interact to enhance firm value in the consumption sector? This question requires a comprehensive analysis of the individual and collective impacts of these elements on firm value.

By investigating these dynamics, this study can offer valuable insights for companies aiming to improve performance and competitiveness in the consumption sector. The research will also explore how capital structure and profitability influence firm value. Capital structure, which refers to the balance between debt and equity financing, affects profitability (Saputra et al., 2024). Understanding how changes in capital structure influence profitability and, subsequently, firm value is critical for companies to make informed financial decisions that optimize value creation. Furthermore, the role of profitability as a mediator between corporate social responsibility, intellectual capital, and capital structure in shaping firm value should be considered (Amry et al., 2022). Profitability, as a measure of success, can mediate the impact of these factors on firm value, highlighting the complex relationships between financial performance, intangible assets, and corporate responsibility in driving value within the consumption sector. Additionally, the effect of growth, firm size, and profitability on enterprise value should be examined in the consumption sector (Dang et al., 2019). Profitability, often measured by return on assets (ROA), significantly impacts enterprise value, indicating that more profitable companies tend to have higher overall value (Dang et al., 2019). Analyzing how these factors interact and contribute to enterprise value can provide crucial insights for companies seeking to boost competitiveness and market position.

This research will examine how these elements influence each other and work together to enhance firm value, offering practical recommendations for firms to leverage intellectual assets, optimize capital structure, and improve profitability to maximize overall value creation. The study aims to address an important research gap by exploring how intellectual capital, capital structure, and profitability converge to enhance firm value in the consumption sector. By

synthesizing existing literature on intellectual capital's impact on firm value (Chen et al., 2005; Ghosh S & Mondal A, 2009; Maditinos et al., 2011), capital structure's effect on firm value (Ni et al., 2020; Natsir & Yusbardini, 2020), and profitability's influence on firm value (Natsir & Bangun, 2021), this research seeks to provide a comprehensive understanding of the mechanisms driving value creation in the consumption sector.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The theoretical foundations for enhancing firm value through intellectual capital, capital structure, and profitability are based on a variety of theories that help explain how these factors contribute to a company's value. The theory of intellectual capital highlights the significance of intangible assets like knowledge and expertise in driving organizational performance and value creation (Harris, 2000). By recognizing and effectively utilizing intellectual capital, firms can strengthen their competitive edge and overall value proposition (Appah et al., 2023). In the realm of capital structure, multiple theories—such as the tradeoff theory, pecking order theory, agency theory, and the theory of free cash flow—offer valuable insights into how firms can optimize their financial structures to improve performance and profitability (Ali, 2013). These theories present testable hypotheses about the factors influencing firm performance, emphasizing the critical role of capital structure decisions in shaping firm value.

The impact of profitability on firm value is a key element in economic theories that explore the link between financial performance and a company's overall valuation (Talunohi & Bertuah, 2022). Profitability is a critical determinant of a firm's success and can serve as a mediator for other factors, such as capital structure and company size, in influencing firm value. Understanding profitability's role in value creation is essential for companies aiming to improve their financial performance and market positioning. Additionally, theories on intellectual capital valuation and game theory offer frameworks for evaluating intangible assets and strategic decision-making processes (Radjenovic & Krstic, 2017; Chen, 2003). By applying game theory and options theory to intellectual capital valuation, companies can make informed decisions about resource allocation and value creation strategies. Moreover, the theory of profit function and optimal debt in the tradeoff theory provides insights into how firms can balance their debt levels and profitability to maximize value (Mullineaux & Pyles, 2010; Abel, 2015). These theories underscore the importance of finding the right balance between debt and profitability to optimize the capital structure and enhance firm value.

The relationship between intellectual capital, capital structure, and profitability in driving firm value has been a prominent topic in corporate finance. As an intangible asset, intellectual capital has been shown to positively affect both market value and financial performance (Chen et al., 2005; Maditinos et al., 2011). Companies with robust intellectual capital are more likely to demonstrate greater value creation potential. Furthermore, intellectual capital disclosure has been associated with higher investor confidence and, consequently, greater firm value (Maulana & Mediawati, 2022). Capital structure, which refers to the blend of debt and equity financing a firm uses, plays a significant role in determining profitability and, ultimately, firm value (Oktavia & Ramadhan, 2024). Research has highlighted that the interaction between capital structure, profitability, and liquidity can notably affect a company's overall value (Oktavia & Ramadhan, 2024). Understanding how changes in capital structure influence profitability and firm value is critical for companies seeking to optimize their financial structures to create value. Profitability, as a key measure of financial success, is a vital determinant of firm value (Talunohi & Bertuah, 2022). Studies have shown that profitability not only directly impacts firm value but also mediates the effects of other factors, such as capital structure, company size, and leverage, on firm value (Talunohi & Bertuah, 2022; Halfiyyah & Suriawinata, 2019).

Additionally, dividend policy and corporate social responsibility have been found to have a positive effect on firm value, underscoring the importance of these factors in value-creation strategies (Bahri, 2024; Nuswandari et al., 2019). The influence of liquidity, company size, and leverage on profitability and firm value has also been examined in various industries, such as the food and beverage sector (Tamrin et al., 2022; Sukarya & Baskara, 2018). Understanding how these factors interact and affect profitability can provide valuable insights for companies looking to enhance their financial performance and overall value.

Hypothesis Development

The empirical findings suggest a statistically significant positive relationship between value-added intellectual capital (VAIC) and a firm's profitability (Nguyen & Doan, 2020). This aligns with research by Fitriaty et al. (2022), which asserts that intellectual capital positively influences company performance and value. The results also support previous studies by Ardianto & Rivandi (2018) and Rivandi & Septiano (2021), which emphasize that the disclosure of intellectual capital positively impacts firm value. A higher or more extensive disclosure of intellectual capital tends to increase investor confidence, leading to greater investment in the company (Maulana & Mediawati, 2022). These findings support the hypothesis that intellectual capital positively influences market value and financial performance, potentially indicating future financial outcomes (Chen et al., 2005; Maditinos et al., 2011). Based on these insights, we formulate the following hypothesis:

H1: Intellectual Capital positively affects Firm Value.

Yen et al. (2023) explored the impact of capital investments on financial performance in Vietnam's food and agriculture sector. They found that although capital investments may initially result in short-term losses, they eventually lead to productivity improvements and positively impact long-term profitability. Mutua et al. (2024) examined the link between human capital investment and organizational performance, noting that human capital accumulation and proper investment strategies positively influence organizational performance. Crook et al. (2011) analyzed the relationship between human capital and firm performance, concluding that investing in human capital yields positive outcomes for both individuals and organizations. The following hypothesis is proposed:

H2: Intellectual Capital positively influences a company's profitability.

Kumar et al. (2017) reviewed capital structure determinants and their relationship with firm value, highlighting the importance of understanding structural capital decisions. Hardiyanti & Akhamdi (2022) empirically examined the relationship between capital structure and firm value, finding that capital structure has a significant positive impact on firm value. These studies suggest that strategic capital structure decisions, including considerations of structural capital, are essential for enhancing firm value. Fakiyesi & Olaoye (2018) examined the effects of corporate structural changes on financial reporting in Nigeria's banking industry, indicating that capital structure decisions are influenced by external factors and strategies that aim to maximize firm value. Alfishah et al. (2022) looked at the relationship between capital structure and financial performance in food and beverage firms, underscoring how structural capital affects firm value. Suyanto & Bilang (2023) found that capital structure positively affects firm value, further emphasizing the importance of structural capital. Based on these studies, we propose the following hypothesis:

H3: Capital Structure positively influences a firm value.

Nurfan et al. (2024) studied the impact of capital structure and profitability on firm value in pharmaceutical companies listed on the Indonesia Stock Exchange, finding that both capital structure and profitability significantly shape firm value. Saputra et al. (2024) explored the

influence of capital structure on profitability and asset management, highlighting the importance of capital structure decisions in affecting profitability and macroeconomic outcomes. Tahu (2023) investigated the internal and external factors influencing profitability, with capital structure identified as a key determinant. The study suggested that a company's internal factors, particularly capital structure, play a substantial role in shaping profitability. Khafid et al. (2020) examined the effects of managerial ownership, institutional ownership, and profitability on capital structure, with firm size as a moderating variable. The study suggested that high profitability indirectly reduces the capital needs of outsiders, leading to a positive impact on capital structure. Ilmiyono & Widywati (2021) analyzed the effect of profitability and company size on equity structure in pharmaceutical companies listed on the IDX. The study highlighted that profitability is one of the factors influencing the company's capital structure decisions, emphasizing the relationship between profitability and capital structure. The following hypothesis is proposed:

H4: Capital Structure positively influences a company's profitability.

Safitri et al. (2022) explored the relationship between profitability, corporate governance, dividend policy, and firm value at ISSI, highlighting that profitability mediates the impact of governance and dividend policy on firm value. Prasetya Margono & Gantino (2021) analyzed the effect of firm size, leverage, profitability, and dividend policy on firm value, finding that profitability significantly influences firm value. Similarly, Susanti & Restiana (2018) noted that company profits have a positive and significant effect on firm value, reinforcing the idea that higher profitability leads to increased firm value. Burhanuddin et al. (2023) studied the impact of capital structure and profitability on firm value in the food and beverage sector, finding that profitability has a significant positive effect on firm value. Huda et al. (2020) examined the effect of profitability and capital structure on firm value through dividend policy in transportation companies, confirming that both profitability and capital structure positively influence firm value. The following hypothesis is proposed:

H5: Company's profitability positively influences a firm's value.

The conceptual framework presented in Figure 1 illustrates the interconnected relationships among intellectual capital, capital structure, company profitability, and firm value. H1, Intellectual Capital (IC) is depicted as having a significant impact on both Firm Value (FV) and the Company's Profitability (P). According to H1, the hypothesis posits that Intellectual Capital positively affects Firm Value. This means that a firm's intangible assets, such as knowledge, skills, and innovation capabilities, contribute to enhancing the overall value of the firm. For instance, a company with a highly skilled workforce and strong innovation potential will likely be more valuable in the marketplace due to its competitive edge.

Moreover, H2 suggests that Intellectual Capital has a positive impact on Company's Profitability. This implies that the effective use of intellectual resources leads to better financial performance. By leveraging its intellectual capital, a company can improve its operational efficiency, innovate new products or services, and enhance customer satisfaction, all of which contribute to higher profitability. Capital Structure (CS) is a crucial element in the framework. H3 indicates that Capital Structure has a positive influence on Firm Value. This hypothesis suggests that the way a company finances its operations, whether through debt or equity, can significantly impact its value. An optimized capital structure, which balances debt and equity, can reduce the overall cost of capital and increase the firm's value. For example, taking advantage of low-interest debt can provide tax benefits and boost returns on equity, thereby enhancing the firm's value.

Furthermore, H4 states that Capital Structure positively influences the Company's Profitability. This means that a well-managed capital structure can lead to higher profitability. Properly

balancing debt and equity can lower financing costs and improve financial leverage, resulting in better profitability. For instance, strategically using debt allows a company to invest in growth opportunities without diluting shareholders' equity, thus improving returns. Finally, H5 posits that a Company's Profitability positively influences Firm Value. This hypothesis suggests that higher profitability directly contributes to increased firm value. Profitability is a crucial indicator of a firm's financial health and performance and higher profitability signals to investors that the company is performing well and has the potential for growth and returns. Consequently, a profitable company is often valued higher in the market.

Figure 1. Conceptual Framework

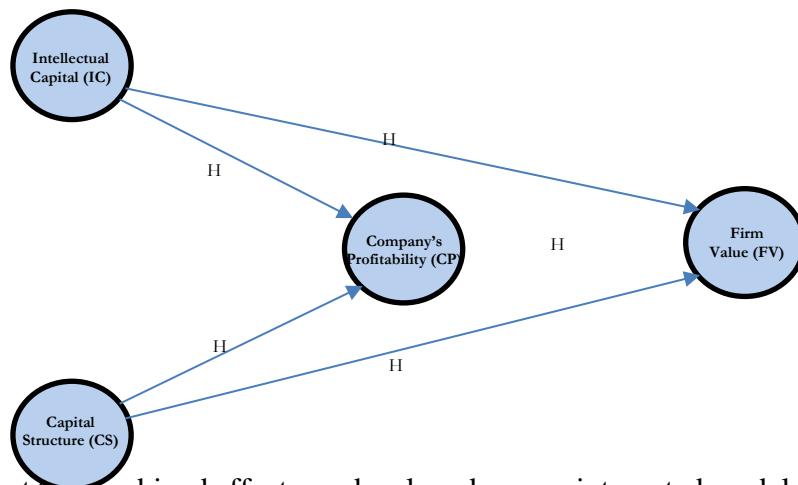


Table 1 represent the combined effect, we developed a more integrated model, namely that Firm Value (FV) can be influenced by Intellectual Capital (IC) and Capital Structure (CS) directly and indirectly through the Company's Profitability (P).

Table 1 Integrated Model

No	Model	Formula
1	Direct effects of IC on Firm Value	$FV=\alpha_1+\beta_1IC+\epsilon_1FV$
	Direct effects of CS on Firm Value	$FV=\alpha_3+\beta_3CS+\epsilon_3FV$
2	Direct effects of IC on Profitability	$P=\alpha_2+\beta_2IC+\epsilon_2$
	Direct effects of CS on Profitability	$P=\alpha_4+\beta_4CS+\epsilon_4$
3	Direct effects of Profitability on Firm Value	$FV=\alpha_5+\beta_5P+\epsilon_5$
4	Integrated Model for Profitability	$P=\alpha_6+\beta_6IC+\beta_7CS+\epsilon_6P$
	Integrated Model for Firm Value	$FV=\alpha_7+\beta_8IC+\beta_9CS+\beta_{10}P+\epsilon_7FV$

Information: FV: Firm Value, P: Profitability, IC: Intellectual Capital, CS: Capital Structure, α : constant, β : coefficient, ϵ : error.

RESEARCH METHOD

This paper aims to explore the relationships between Intellectual Capital (IC), Capital Structure (CS), and Firm Value (FV), with Firm Profitability (PR) serving as a mediating variable. A quantitative research approach is employed, utilizing secondary data and analyzed through SmartPLS. The research focuses on consumer goods companies listed on the Indonesia Stock Exchange (BEI), selected through purposive sampling, with a total of 190 observations. Companies that experienced losses or went public during the study period are excluded. According to Table 2, firm value is represented by return on assets (ROA), a commonly used financial metric. ROA is calculated by dividing net profit after tax by total assets, serving as a

key indicator of how effectively a company generates profit from its assets. Previous research has shown that financial metrics, including ROA, are linked to firm performance, with competitive advantage playing a key role in mediating these effects (Pergelova & Angulo-Ruiz, 2014).

Intellectual Capital (IC) is measured using the Value-Added Intellectual Coefficient (VAIC), which combines Human Capital Efficiency (HCE), Capital Employed Efficiency (CEE), and Structural Capital Efficiency (SCE). This measurement emphasizes the importance of intangible assets in driving competitive advantage and overall firm performance (Pergelova & Angulo-Ruiz, 2014). The VAIC model, which calculates the value added (VA) as the difference between outputs and inputs, is supported by research highlighting the significant impact of intellectual capital on firm value (Memon et al., 2018). This model helps to assess how well a company utilizes its intangible assets—such as human, structural, and capital resources—to generate economic value. The VAIC score is derived in four steps: First, Value Added (VA) is calculated by subtracting operational expenses (IN) from revenue (OUT), representing the net value created by the company. Second, Human Capital Efficiency (HCE) is determined by dividing the Value Added (VA) by total employee costs (HC), indicating how effectively a company's human resources contribute to value creation. Third, Capital Employed Efficiency (CEE) is measured by dividing the Value Added (VA) by total capital employed (CE), reflecting the efficiency of capital investments. Finally, Structural Capital Efficiency (SCE) is calculated by dividing Structural Capital (SC) by Value Added (VA), assessing how effectively the company's infrastructure and systems contribute to value creation. Structural Capital is distinct from both Value Added (VA) and Human Capital (HC). Capital Structure (CS) is measured using the Debt-to-Equity Ratio (DER), while profitability is assessed through the Price-to-Book Value (PBV) ratio.

Table 2 Variable measurement

Variables		Operational Definition	Measurement	References
Dependent Variable	FirmValue (FV)	Firm Value or shareholder value reflects the stock market's reaction to the company.	$ROA = \frac{\text{Net profit after tax}}{\text{Asset Total}}$	(Supriadi et al., 2021; Pergelova & Angulo-Ruiz, 2014)
Independent Variable	Intellectual Capital (IC)	The intangible assets that contribute to an organization's competitive advantage	$VAIC = HCE + CEE + SCE$ Four stages: 1. $VA = OUT - IN$ 2. $HCE = \frac{VA}{HC}$ 3. $CEE = \frac{VA}{CE}$ 4. $SCE = \frac{SC}{VA}$	(Nguyen & Doan, 2020; Bayraktaroglu et al., 2019)
Capital Structure (CS)		Comparison of long-term debt with own capital	$DER = \frac{\text{Debt Total}}{\text{Equity Total}}$	(Kumar et al., 2017; Hardiyanti & Akhamdi, 2022)
Profitability (PR)		The company's ability to generate profits during a certain period	$PBV = \frac{\text{Market price per share}}{\text{Book value per share}}$	(Noor-Ud-Din et al., 2021)

Source: The authors analyze from various articles

RESULTS AND DISCUSSION

Table 3 provides descriptive statistics for four financial indicators: PBV, DER, ROA, and VAIC. ROA indicates that, on average, consumer goods companies generate strong returns from their assets, with a mean of 9.642%. This suggests efficient use of assets across the sector, though the median ROA of 7.480% indicates that most firms fall below the average. The high means is influenced by a few exceptionally profitable companies, as evidenced by the broad range of ROAs from 0.011% to 46.660%. The standard deviation of 8.083% reflects the considerable variability in profitability among companies. The high kurtosis of 4.835 and skewness of 1.965 further suggest that the distribution is skewed to the right, with a few firms achieving much higher asset profitability than the rest. VAIC shows that companies in the consumer goods sector generally effectively leverage their intellectual capital. The average VAIC of 5.346 suggests a reasonable efficiency level in creating value from knowledge-based resources. However, the median VAIC of 3.884 indicates that while most companies have moderate efficiency, a few highly efficient firms push the mean higher. The range of VAICs, from 1.482 to 15.312, reveals a substantial variation in how well companies use their intellectual assets to generate value. The standard deviation of 3.319 further confirms this variability. Unlike other metrics, the VAIC distribution is more balanced, with a kurtosis of 0.666 and a skewness of 1.211, indicating only a slight skew towards companies with higher efficiency. In terms of DER, consumer goods companies tend to rely more on equity than debt, with an average DER of 0.931.

The median DER of 0.535 suggests that most firms are conservatively financed, maintaining lower debt levels than equity. However, there is a significant change across the sector, with DERs ranging from 0.102 to 4.413. The standard deviation of 0.914 points to moderate variability, with a few companies carrying much higher debt levels pushing the mean higher. The excess kurtosis of 3.172 and skewness of 1.803 show a moderately right-skewed distribution, with a few highly leveraged firms standing out against most conservatively financed companies. PBV of consumer goods companies in Indonesia presents a broad range of valuations. On average, investors are willing to pay 3.48 times these firms' book value, reflecting a generally strong market perception of the sector. However, the median PBV is significantly lower at 1.505, indicating that most firms have more modest valuations. The high mean is skewed by a few outliers with very high PBVs, as shown by the wide range from 0.111 to 60.672 and the high standard deviation of 6.511. This disparity is also highlighted by the extreme kurtosis (41.643) and skewness (5.829), revealing a highly skewed distribution where many firms enjoy extraordinarily high market valuations while most operate near the median.

Table 3 descriptive statistics

Variable	Mean	Median	Min	Max	Standard Deviation
ROA	9.642	7.48	0.011	46.66	8.083
VAIC	5.346	3.884	1.482	15.312	3.319
DER	0.931	0.535	0.102	4.413	0.914
PBV	3.48	1.505	0.111	60.672	6.511

Source: SmartPLS 4

Table 4 presents a statistical analysis using a structural equation model, demonstrating that Intellectual Capital (IC) positively influences Firm Value (FV). The path coefficient of 0.263 indicates that companies with more intellectual capital resources experience higher firm value. The relationship is statistically significant, with a T-statistic of 3.883 and a p-value of 0.000,

supporting Hypothesis 1. Intellectual Capital (IC) includes a firm's intangible assets, such as human capital, structural capital, and relational capital. The effect of intellectual capital on firm value is well-supported in existing literature, which shows that firms with greater intellectual capital tend to perform better financially and have a higher market value (Chen et al., 2005; Maditinos et al., 2011). Research has also highlighted the role of intellectual capital investments in strengthening a firm's competitive advantage and creating long-term value (Filipe Sardo & Zelia Serrasqueiro, 2017). Additionally, intellectual capital positively impacts profitability, with firms leveraging their intellectual resources often achieving superior profit margins (Appah et al., 2023). The analysis reveals that IC also positively influences Profitability (PR), as shown by a path coefficient of 0.281. This suggests that firms with higher intellectual capital tend to be more profitable. This relationship is statistically significant, with a T-statistic of 2.788 and a p-value of 0.006, confirming Hypothesis 2.

The results further indicate that Capital Structure (CS) has a negative impact on Firm Value (FV), with a path coefficient of -0.206. This suggests that an increase in capital structure, potentially reflecting higher debt levels, leads to a decrease in firm value. The relationship is statistically significant, with a T-statistic of 3.617 and a p-value of 0.000, supporting Hypothesis 3. Capital Structure is often measured using the debt-to-equity ratio (DER), which represents a company's financial leverage. Previous studies suggest a negative relationship between high leverage and firm value, as excessive debt increases financial risk (Natalia et al., 2021). Research also highlights the importance of distinguishing between short-term and long-term debt, with long-term debt potentially having a positive effect on operating assets and performance (Kodongo et al., 2014). Understanding this nuance is essential when evaluating the impact of capital structure on firm value and profitability. On the other hand, Capital Structure (CS) positively affects Profitability (PR), as indicated by a path coefficient of 0.191. This implies that companies with a higher capital structure are generally more profitable. The relationship is statistically significant, with a T-statistic of 3.073 and a p-value of 0.002, confirming Hypothesis 4.

The most significant relationship in the model is between Profitability (PR) and Firm Value (FV). A path coefficient of 0.642 suggests that firms with higher profitability tend to have higher firm value. The relationship is robust, with a T-statistic of 9.61 and a p-value of 0.000, validating Hypothesis 5. Overall, the analysis confirms that both Capital Structure and Intellectual Capital are critical factors influencing a firm's profitability and value, with Profitability having the most substantial effect on Firm Value. All relationships tested are statistically significant, strongly supporting the proposed hypotheses. Profitability (PR) is a key measure of a company's ability to generate earnings relative to its revenue, assets, or equity. The connection between profitability and firm value is widely recognized in the literature, with studies consistently showing that higher profitability leads to higher firm value (Huda et al., 2020). Further studies have also indicated that profitability serves as a mediating factor in the relationship between firm size and firm value (Hapsoro & Annisa, 2017). In addition, capital structure affects profitability, and optimal capital structure can enhance profitability, thereby contributing positively to firm value (Budiandriani et al., 2023).

Firm Value (FV) is typically evaluated using metrics such as market capitalization or stock price. The interconnection between capital structure, intellectual capital, profitability, and firm value is evident in numerous studies. For instance, analyses show that profitability, liquidity, and firm size significantly influence firm value, underscoring the importance of these financial metrics in investment decisions (Astuti et al., 2019). Moreover, intellectual capital has a significant impact on both market value and financial performance, further supporting its role in increasing firm value (Maditinos et al., 2011). Empirical evidence strongly backs the

hypothesis that capital structure, intellectual capital, and profitability each directly influence firm value, with profitability having the most pronounced effect, as indicated by high path coefficients and significant T-statistics across various studies. This analysis highlights the importance of understanding the interplay between these variables in assessing a company's financial health and strategic positioning, providing valuable insights for both research and professional practice.

Table 4 Path Coefficients

Variable	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
IC -> FV	0.263	0.264	0.068	3.883	0,000*
IC -> PR	0.281	0.266	0.101	2.788	0.006**
CS -> FV	-0.206	-0.21	0.057	3.617	0,000*
CS -> PR	0.191	0.186	0.062	3.073	0.002*
PR -> FV	0.642	0.651	0.067	9.61	0,000*

*Sig <0.005 **Sig <0.010 Source: SmartPLS 4

The result of applying Data on Direct Effects and Integrated Models, this equation provides a framework for analyzing how intellectual capital and capital structure influence profitability and firm value in the consumer goods sector.

Table 5 The result of applying data on Direct Effects and Integrated Models

No	Model	Formula	Substitution
1	Direct effects of IC on FV	$FV=\alpha_1+\beta_1IC+\epsilon_1FV$	$FV=\alpha_1+\beta_1(5.346)+\epsilon_1FV$
	Direct effects of CS on FV	$FV=\alpha_3+\beta_3CS+\epsilon_3FV$	$FV=\alpha_3+\beta_3(0.931)+\epsilon_3FV$
2	Direct effects of IC on PR	$P=\alpha_2+\beta_2IC+\epsilon_2$	$PR=\alpha_2+\beta_2(5.346)+\epsilon_2$
	Direct effects of CS on PR	$P=\alpha_4+\beta_4CS+\epsilon_4$	$P=\alpha_4+\beta_4(0.931)+\epsilon_4$
3	Direct effects of PR on FV	$FV=\alpha_5+\beta_5P+\epsilon_5$	$FV=\alpha_5+\beta_5(9.642)+\epsilon_5$
4	Integrated Model for PR	$P=\alpha_6+\beta_6IC+\beta_7CS+\epsilon_6P$	$P=\alpha_6+\beta_6(5.346)+\beta_7(0.931)+\epsilon_6PR$
	Integrated Model for FV	$FV=\alpha_7+\beta_8IC+\beta_9CS+\beta_{10}P+\epsilon_7FV$	$FV=\alpha_7+\beta_8(5.346)+\beta_9(0.931)+\beta_{10}(9.642)+\epsilon_7FV$

Source: Authors' calculation

Figure 2 illustrates the relationships between Intellectual Capital (IC), Capital Structure (CS), Company Profitability (CP), and Firm Value (FV), emphasizing how these variables interact within the model. Intellectual Capital (IC) contributes significantly to the company's Profitability, represented by a positive coefficient of 2.788. This suggests that their profitability increases as companies invest more in intellectual Capital, such as knowledge, human resources, and innovation. Intellectual Capital is crucial in enhancing a firm's operational efficiency and financial performance. Capital Structure (CS) also has a notable direct effect on Profitability, with a coefficient of 3.073. This indicates that companies with a well-managed balance between debt and equity tend to perform better in Profitability. Firms that manage their capital structure effectively are likely to optimize their financial leverage, leading to increased returns. Intellectual Capital (IC) has a direct positive impact on Firm Value (FV), with a coefficient of 3.883. Companies that efficiently utilize their intellectual Capital tend to be valued more highly in the market. Capital Structure (CS) influences firm value directly with a coefficient of 3.617. This shows that firms with balanced capital structures, especially those that use equity and debt wisely, tend to have higher market valuations. A well-managed capital

structure helps firms appear more financially stable and attractive to investors. However, it is the significant positive relationship between Company Profitability (CP) and Firm Value (FV), with a coefficient of 9.610, that truly underscores the importance of generating higher profits. Firms that generate higher profits are generally seen as more valuable in the market, as Profitability reflects the company's ability to generate returns on its investments. Investors often regard high Profitability as a signal of financial health, operational efficiency, and future growth prospects.

The model underscores the pivotal role of Profitability as a mediator in the relationship between Intellectual Capital, Capital Structure, and Firm Value. While both Intellectual Capital and Capital Structure directly affect Firm Value, Profitability serves as a critical amplifier in this relationship. The firm's ability to generate profits significantly enhances the effects of intellectual and Capital investments on its overall market value, with Profitability being the most substantial driver of firm valuation.

CONCLUSION

The empirical evidence gathered through structural equation modeling reveals significant insights into how these variables interact and influence one another. Firstly, the findings indicate that capital structure has a dual impact on firm value and profitability. A negative path coefficient suggests that higher debt levels may detract from firm value, aligning with the notion that increased financial leverage can elevate risk and potentially diminish market perceptions of a firm's worth. Conversely, a positive relationship between capital structure and profitability indicates that firms can leverage debt to enhance operational efficiency and generate higher returns. This supports the hypothesis that strategic financial management can yield beneficial outcomes. Secondly, intellectual capital is a critical driver of firm value and profitability. The positive coefficients associated with intellectual capital suggest that firms investing in their intangible assets, such as knowledge, innovation, and human capital will likely experience enhanced financial performance and market valuation. This finding reinforces the importance of intellectual capital as a strategic asset in today's knowledge-driven economy.

Moreover, profitability is shown to have the most substantial effect on firm value, with a high path coefficient indicating that more profitable firms tend to achieve higher market valuations. This relationship highlights the significance of operational efficiency and effective profit generation as critical determinants of a firm's overall worth. The interconnectedness of capital structure, intellectual capital, and profitability illustrates a complex web of influences that shape firm value. The statistically significant relationships identified in this study provide a robust framework for understanding how firms can strategically manage their financial and intellectual resources to enhance performance and market standing. Future research could further explore these dynamics across different industries and economic contexts to deepen our understanding of the mechanisms at play. By recognizing the importance of these variables, firms can better position themselves for sustainable growth and competitive advantage in an increasingly challenging business landscape.

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