

The impact of accounting measurement of intangible assets on financial statements quality in SCF -A case study of intellectual capital

أثر القياس المحاسبي للأصول غير الملموسة على جودة القوائم المالية في النظام المحاسبي المالي –دراسة حالة رأس المال الفكري

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Abstract: In today's knowledge-driven economy, intangible assets like intellectual capital are key to value creation. However, their abstract nature poses challenges for traditional accounting methods, raising concerns about financial data accuracy and transparency. This study examines how measuring intellectual capital affects the quality of financial statements within Algeria's accounting system (SCF). Our survey of accounting professionals reveals a strong belief in the importance of intellectual capital and its positive impact on financial reporting. Our findings indicate a strong consensus among professionals regarding the significance of intellectual capital and its positive influence on the quality of financial reporting. However, challenges in measuring it within the current SCF framework are acknowledged. The study suggests a need for a comprehensive framework, standardized metrics, and capacity building initiatives to enhance transparency and boost stakeholder confidence in financial information.

Keywords: Intangible assets, intellectual capital, financial statement quality, accounting measurement, Algerian Financial Accounting System (SCF),

JEL Classification: M41.

ملخص: تبحث هذه الدراسة في كيفية تأثير قياس رأس المال الفكري على جودة البيانات المالية في النظام المحاسبي الجزائري (SCF). يكشف الاستطلاع الذي أجريته لمحترفي المحاسبة عن إيمان قوي بأهمية رأس المال الفكري وتأثيره الإيجابي على إعداد التقارير المالية. تشير النتائج التي توصلنا إليها إلى وجود إجماع قوي بين المهنيين فيما يتعلق بأهمية رأس المال الفكري وتأثيره الإيجابي على جودة التقارير المالية. ومع ذلك، فقد تم الاعتراف بالتحديات التي تواجه قياسها ضمن إطار SCF الحالي. وتشير الدراسة إلى الحاجة إلى إطار شامل ومقاييس موحدة ومبادرات لبناء القدرات لتعزيز الشفافية وتعزيز ثقة أصحاب المصلحة في المعلومات المالية. **الكلمات المفتاحية:** الأصول غير الملموسة، رأس المال الفكري، جودة القوائم المالية، القياس المحاسبي، النظام المحاسبي المالي الجزائري.

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Introduction

Intangible assets, encompassing elements like intellectual property, brand recognition, and human capital, have become increasingly crucial to firm value and competitive advantage in the knowledge-based economy. However, their unique nature poses challenges for traditional accounting frameworks primarily designed for tangible assets (Lev, 2001; Penman, 2009). The lack of physical substance and the difficulty in reliably measuring their fair value have often led to the undervaluation or complete omission of intangible assets from financial statements (Barth et al., 2001; Aboody & Lev, 2000). This opacity in financial reporting can hinder stakeholders' understanding of a firm's true value and future prospects.

Therefore, measuring and reporting intangible assets, especially intellectual capital, have emerged as critical challenges in accounting research and practice. This has led to concerns about the quality of financial statements and their ability to provide a true and fair view of the company's financial position and performance.

Research on intangible asset accounting is vital for several reasons. First, it aids in developing methodologies for the identification, measurement, and reporting of these assets, improving the transparency and informativeness of financial statements (Hsu & Wang, 2013). Second, it enhances understanding of the relationship between intangible assets and firm performance, enabling investors and analysts to make more informed decisions. For example, studies have shown that companies with strong intangible assets tend to exhibit higher profitability and growth rates (Chan et al., 2006). Third, research can inform policymakers and standard-setters in developing more comprehensive accounting standards that reflect the increasing significance of intangible assets in the modern economy (Lev, 2012).

Several studies have examined the challenges and opportunities associated with accounting for intangible assets in different contexts. Some research has focused on specific industries, such as technology or pharmaceuticals, where intangible assets play a dominant role, it is exemplified by (Core et al.'s, 2008) "The Measurement and Management of Intellectual Capital: A Strategic Perspective.". Others have explored the impact of different accounting standards and regulations on intangible asset measurement and disclosure practices (Barth et al., 2001). Chan et al.'s (2006) work, "Intangible Assets: Management, Measurement, and Reporting," also showed that companies that boast strong intangible assets often exhibit higher rates of profitability and growth. In addition, research such as Leff's (2012) "The End of Accounting and the Path Forward for Investors and Managers" can provide valuable information to policy makers and standard setters

as they work to develop more comprehensive accounting standards that reflect the growing importance of intangible assets in the economy.

In the context of our current study, Numerous studies have investigated the impact of intangible asset measurement on financial statement quality. A recurring theme is the inadequacy of current accounting standards in recognizing and valuing intangible assets, leading to an under representation of their contribution to firm value (Aboody & Lev, 2000). This can result in an information gap for investors and other stakeholders, hindering their ability to make informed decisions (Penman & Zhang, 2002).

Studies also indicate that inadequate measurement can negatively affect the relevance, reliability, and faithful representation of financial reports (Reilly & Schweihs, 1998). Furthermore, concerns have been raised about the potential for earnings management when intangible assets are not measured and reported transparently (Barth et al., 2001).

Several scholars have proposed alternative measurement models for intellectual capital, such as the Balanced Scorecard and the VAIC model (Pulic, 2000). These models aim to capture a more holistic view of intangible assets by incorporating non-financial indicators and focusing on value creation processes. However, challenges remain in terms of standardization, comparability, and subjectivity in the application of these models (Zéghal & Maaloul, 2010).

Within the Algerian context, limited research exists on the topic, although studies on the adoption of International Financial Reporting Standards (IFRS) have touched upon the challenges of aligning the Algerian Financial Accounting System (Système Comptable Financier - SCF) with international best practices for intangible asset accounting. This highlights the need for more research specifically focused on the Algerian context to understand the specific challenges and opportunities faced by companies.

This study examines the impact of accounting measurement for intangible assets on the quality of financial statements within the Algerian SCF framework by application to intellectual capital, and the most important challenges and limitations imposed on current measurement practices for intangible assets and their potential impact on the importance and reliability of financial information. Our study also examines the perceptions of accounting professionals in Algeria regarding the adequacy of SCF in recording the value of intangible assets and providing transparent financial reporting.

- **Study problem**

From the above, the problem of the study can be presented as follows:

How does the current approach to measuring intangible assets, specifically intellectual capital, affect the relevance, reliability, and faithful representation of financial statements?

- **Study hypothesis**

The research was based on the hypothesis:

There is no Impact of accounting measurement of intangible assets (intellectual capital), on financial statements quality.

- **The study method**

To investigate the impact of intangible asset measurement on financial statement quality, this study will employ a quantitative data collection and analysis techniques. This approach allows for a comprehensive understanding of the complex relationship between intangible asset measurement practices and their influence on the information conveyed in financial statements, through a structured questionnaire will be distributed to a diverse sample of accounting professionals, including financial analysts, auditors, and academics specializing in financial reporting.

1. Intangible Assets and Intellectual Capital

The rise of the knowledge-based economy has thrust intangible assets, including intellectual capital (IC), into the spotlight as primary drivers of value creation and competitive advantage (Sveiby, 1997; Stewart, 1997). These assets, lacking physical substance yet possessing significant economic value, encompass a range of elements such as intellectual property, brand recognition, customer relationships, and employee skills (Lev, 2001). Despite their growing importance, traditional accounting practices, designed primarily for tangible assets, struggle to effectively capture and report the value of intangibles. This leads to concerns about the quality and transparency of financial statements, hindering stakeholders' ability to make informed decisions (Penman & Zhang, 2002).

1.1 Intangible Assets: Non-physical assets holding economic value and contributing to a company's value creation. (International Accounting Standards Board, IAS 38)

1.2 Intellectual Capital (IC): Knowledge, skills, and relationships within an organization that contribute to value creation. (Stewart, 1997)

1.2.1 Human Capital: The collective skills, knowledge, and experience of an organization's workforce. (Bontis, 1998)

1.2.2 Structural Capital: The infrastructure, processes, and systems that support the organization's knowledge creation and sharing activities. (Edvinsson & Malone, 1997)

1.2.3 Relational Capital: The value of an organization's relationships with external stakeholders, such as customers, suppliers, and partners. (Sveiby, 1997)

2. Measurement and disclosure Challenges and Frameworks

Current accounting standards, including IFRS and US GAAP, offer limited guidance on recognizing and measuring intangible assets, often relying on restrictive criteria like identifiability, control, and future economic benefits (Barth et al., 2001). This presents a significant challenge, particularly for internally generated intangibles such as brand reputation, organizational culture, and employee know-how, whose value is difficult to quantify objectively (Sveiby, 1997).

The accounting treatment of intangible assets remains a contentious topic with several ongoing debates and controversies:

2.1 Recognition and Measurement

2.1.1 Capitalization vs. Expensing: A core debate revolves around whether to capitalize or expense the costs associated with developing or acquiring intangible assets. Proponents of capitalization, such as advocates of the resource-based view (RBV) of the firm, argue that it reflects the long-term economic benefits of these assets and provides a more accurate picture of a firm's value and competitive advantage (Barney, 1991). Opponents, often aligned with historical cost accounting principles, contend that it is difficult to reliably measure the future benefits and that capitalization can be easily manipulated, leading to overstated assets and earnings (Penman, 2009).

2.1.2 Historical Cost vs. Fair Value: The debate between historical cost and fair value accounting extends to intangible assets. While historical cost provides a verifiable and objective measure, it may not reflect the current economic reality, especially for assets with volatile market values. Fair value, on the other hand, can be subjective and prone to manipulation, raising concerns about reliability and comparability (Barth et al., 2001). This debate is particularly relevant in the context of mergers and acquisitions, where the valuation of acquired intangible assets can significantly impact the purchase price and subsequent financial reporting.

2.2 Several frameworks have emerged to address these limitations in IC measurement

2.2.1 VAIC Model (Pulic, 1998): This model focuses on the efficiency of value creation from both physical and intellectual capital. It considers three key components: human capital efficiency, structural capital efficiency, and capital employed efficiency.

2.2.2 Balanced Scorecard (BSC) (Kaplan & Norton, 1992): The BSC provides a more holistic view of organizational performance by incorporating financial and non-financial measures across four perspectives: financial, customer, internal process, and learning and growth. This framework implicitly captures various aspects of IC.

2.2.3 Other Models: The Skandia Navigator, developed by Edvinsson and Malone (1997), and the Intangible Asset Monitor offer alternative approaches, often focusing on specific aspects of IC or using qualitative measures to assess IC performance.

2.3 Disclosure

2.3.1 Mandatory vs. Voluntary Disclosure: The extent to which companies should be required to disclose information about their intangible assets is another area of debate. Proponents of mandatory disclosure, often drawing upon stakeholder theory, argue that it is essential for transparency and comparability, enabling stakeholders to make informed decisions and hold companies accountable (Freeman, 1984). Opponents, citing concerns about competitive disadvantage and cost-effectiveness, contend that it can reveal sensitive information to competitors and may not be feasible for smaller firms (Lev, 2001).

2.3.2 Level of Detail and Aggregation: Disagreement exists regarding the level of detail and aggregation appropriate for intangible asset disclosure. Some argue for detailed disclosure by asset category to provide more granular information to stakeholders, while others advocate for a more aggregated approach to avoid information overload and protect competitive information (Aboody & Lev, 2000). This debate also touches upon the issue of materiality, as the level of detail may vary depending on the relative significance of intangible assets to a specific company.

2.3.3 Disclosure and Reporting Practices

Despite increasing awareness of IC's importance, disclosure practices remain inconsistent and often limited (Guthrie & Petty, 2000). Several factors influence disclosure decisions:

- **Proprietary Costs:** Companies may be hesitant to disclose sensitive information that could benefit competitors, fearing loss of competitive advantage.

- **Measurement Challenges:** The lack of standardized and reliable measurement methods hinders consistent and comparable reporting across companies and industries.

- **Regulatory Environment:** Current accounting standards provide limited guidance and incentives for IC disclosure, leaving companies with significant discretion in their reporting practices.

3. Role of Accounting Standards

3.1 Flexibility vs. Specificity: Debate exists regarding the level of flexibility versus specificity that accounting standards should provide for intangible asset measurement and disclosure. Some argue for more prescriptive standards to ensure consistency and comparability across companies, while others advocate for greater flexibility to accommodate the diversity and evolving nature of intangible assets, allowing for professional judgment and industry-specific practices (Lev, 2012).

3.2 Harmonization vs. National Differences: The increasing globalization of business has led to calls for harmonization of accounting standards for intangible assets to facilitate cross-border comparability and investment decisions. However, there are concerns that standardized approaches might not adequately reflect the unique characteristics of different national and economic contexts, requiring consideration of local regulations and business practices (Ball, 2006).

4. Conflicting Viewpoints and Schools of Thought

4.1 Traditional Accounting View: This perspective emphasizes objectivity, reliability, and verifiability in financial reporting, often favoring historical cost accounting and limited disclosure for intangible assets due to measurement challenges.

4.2 Value-Based Management View: This approach focuses on maximizing shareholder value and argues for the inclusion of all value-relevant information, including intangible assets, in financial reports, even if it requires subjective valuation and estimation.

4.3 Stakeholder View: This perspective emphasizes the information needs of diverse stakeholders and advocates for comprehensive disclosure of intangible assets to ensure transparency and accountability to all stakeholders.

From the above we can say that the debates and controversies surrounding the accounting of intangible assets have highlighted the continuing challenges in achieving a balance between relevance, reliability and comparability in financial reporting. As the role of intangible assets in the knowledge-based economy continues to grow, innovative solutions must continue to be explored

and comprehensive frameworks developed to ensure that financial statements accurately reflect companies' true value and performance.

5. Impact on Financial Reporting Quality

Inadequate measurement and limited disclosure of IC raise concerns about financial statement quality:

5.1 Relevance vs. Reliability: The trade-off between relevance and reliability is a key concern in intangible asset accounting. While incorporating intangible assets can enhance the relevance of financial statements by providing a more complete picture of a firm's value, the challenges in measurement and valuation can raise concerns about the reliability and objectivity of financial information (Barth et al., 2001). This debate often leads to discussions on the appropriate balance between qualitative and quantitative information in financial reporting.

5.2 Comparability Across Industries: The diverse nature of intangible assets across different industries makes it challenging to achieve comparability in financial reporting. Industry-specific measurement and disclosure practices might be necessary to reflect the unique characteristics of intangible assets in each sector, such as the research-intensive nature of the pharmaceutical industry or the brand-driven nature of the luxury goods industry (Chan et al., 2006; Core et al., 2008).

5.3 Faithful Representation: Omission or misstatement of IC can distort the true financial position and performance of a company, misleading stakeholders and potentially affecting their investment decisions.

6. Data and Method

Intangible assets, including intellectual capital, are increasingly recognized as key drivers of valuecreation and competitive advantage in today's knowledge based economy (Sveiby, 1997; Stewart, 1997). However, traditional accounting systems, such as the Algerian Financial Accounting System (SCF), often fall short in effectively capturing and representing the value of these assets in financial statements (Lev, 2001) This study aims to examine the impact of accounting measurement for intangible assets on the quality of financial statements within the SCF framework.

6.1 Questionnaire Survey

A quantitative approach was employed using a questionnaire survey targeting accounting professionals and academics in Algeria. The questionnaire was designed to assess the respondents' perceptions of:

- **Accounting measurement of intangible assets:** This construct was measured through items related to the importance and feasibility of measuring different aspects of intangible assets, such as human capital, structural capital, and relational capital.

These dimensions were chosen based on established frameworks for intangible asset measurement (Sveiby, 1997; Stewart, 1997).

- **Quality of financial statements:** This construct was measured through items related to the perceived impact of intangible asset measurement on various aspects of financial statement quality, including credibility, comparability, and understandability. These dimensions are considered crucial for financial statements to be useful for decision-making (Guthrie & Petty, 2000).

- **Statistical Analysis:** The collected data was analyzed using descriptive statistics SPSS and structural equation modeling (SEM) with the Smart PLS 3 software. SEM is a powerful statistical technique that allows for the analysis of complex relationships between multiple variables (Maccallum & Austin, 2000).

6.2 Content analysis data

To explore the impact of intangible asset measurement on the quality of financial statements, specifically focusing on the case of intellectual capital, a survey was conducted among a group of accounting professionals. The survey aimed to achieve several objectives, including: assessing the level of understanding and awareness regarding intellectual capital as a key intangible asset, identifying perceived challenges and limitations in current accounting practices for measuring and reporting intellectual capital, and understanding how these measurement issues may influence the overall quality and reliability of financial statements. The survey results provide valuable insights into the perspectives of accounting professionals on the complex relationship between intellectual capital measurement and financial statement quality.

and the results of those opinions show the following:

Table 1. The distribution of the study sample.

Field of Work	Frequency	Percentage
Chartered Accountant	29	48.33 %
Accountant Expert	10	16.67 %
Accountant	21	35 %

Source: Prepared by the researchers based on the results of the questionnaire.

The table illustrates the composition of the study's sample based on the participants' field of work within the accounting profession.

- Predominance of Chartered Accountants: The majority of the sample (48.33%) consists of Chartered Accountants, indicating a strong representation of professionals with advanced qualifications and expertise in accounting.

- Expert Accountants and Accountants: Expert Accountants represent (16.67 %) of the sample, while Accountants constitute (35 %) This demonstrates a diverse sample that includes individuals with varying levels of experience and specialization within the accounting field.

7. Result and Discussion

7.1 Analysis of results and hypothesis testing

The arithmetic mean and standard deviation were extracted to describe the answers of the research sample, where the results were summarized in the following tables:

A. Descriptive Statistics

The analysis revealed high levels of agreement among respondents regarding the importance of measuring intangible assets and its positive impact on the quality of financial statements.

- Descriptive Statistics for Accounting Measurement of Intellectual capital as an Intangible Assets

The following table likely explores the respondents' perceptions of the nature and measurability of intellectual capital. Analyze the mean scores and standard deviations for statements related to:

Table 2: Descriptive Statistics for Accounting Measurement of Intellectual capital as an Intangible Assets.

N-S	Dimension	Mean	Standard Deviation
01	Intellectual capital is an asset with financial value	4.10	0.877
02	There is difficulty in determining the financial value for intellectual capital	4.25	0.794
03	The largest portion of the value of institutions that rely on knowledge management and service institutions results from intangible assets, including intellectual capital.	3.87	0.935
04	There is difficulty in differentiate between different components of intellectual capital.	4.11	0.877
05	There is an ability to accurately determine the useful life of intellectual assets	1.92	0.298
06	Measuring intellectual capital helps in disclosing it in financial statements	3.87	1.021

Source: Prepared by the researchers based on the results of SPSS.

- **High Agreement:** Statements 1 and 3 show high mean scores (4.10 and 3.87, respectively), indicating strong agreement that intellectual capital holds financial value and significantly contributes to the value of knowledge-based and service organizations.

- **Measurement Difficulty:** Statement 2, with a mean score of 4.25, highlights the recognized difficulty in assigning a precise financial value to intellectual capital.

- **Component Differentiation:** Statement 4, with a mean of 4.11, further emphasizes the challenge of differentiating between the various components of intellectual capital (human, structural, and relational capital), suggesting a need for clearer definitions and classifications.

- **Useful Life Uncertainty:** Statement 5, with the lowest mean score of 1.92, reveals a significant challenge in accurately determining the useful life of intellectual assets, hindering their recognition and amortization within the existing accounting framework.

A.1 Descriptive Statistics for Quality of Performance

This table likely investigates how respondents perceive the impact of intellectual capital measurement on performance evaluation. Analyze the mean scores and standard deviations for statements related to:

Table 3 : Quality of Performance

N-S	Dimension	Mean	Standard Deviation
01	The quality of performance evaluation depends on the degree to which accounting practitioners accept the application of intellectual capital accounting	2.01	0.344
02	Measuring intellectual capital identifies strengths in performance	3.67	0.922
03	There are unified metrics to measure the performance of intellectual capital components	2.90	1.012
04	The performance of human capital (skills, experiences, and knowledge of employees) is measured through the certificates that employees hold	3.44	1.030
05	Human capital performance is measured through salaries, wages, and training cost	3.47	0.990
06	Customer capital performance is measured by how well customer needs are met, customer satisfaction, and how new customers are acquired	3.82	0.880
07	Structural capital performance is measured by an organization's organizational and financial structures	3.91	0.844

Source: Prepared by the researchers based on the results of SPSS.

- **Performance Evaluation Tools:** Statements 02, 04, 05, 06, and 07, all with mean scores above 3.44, indicate agreement that various measures, such as customer satisfaction, employee skills and experience, training costs, and organizational structure, can be used to evaluate the performance of intellectual capital components.

- **Standardization Lacking:** Statement 03, with a mean of 2.90, reveals a lack of standardized metrics for measuring the performance of intellectual capital across different organizations, suggesting a need for developing a common framework.

- **Acceptance of Intellectual Capital Accounting:** Statement 01 has the lowest mean score (2.01) but still falls within the "somewhat agree" range, suggesting that while there might be reservations, there is a growing acceptance among professionals regarding the importance of accounting for intellectual capital.

A.2 Descriptive Statistics for Quality of Accounting Income

This table likely examines the respondents' views on the influence of intellectual capital measurement on the quality of accounting income. Analyze the mean scores and standard deviations for statements related to:

Table 4: Quality of Accounting Income.

N-S	Dimension	Mean	Standard Deviation
01	Ignoring the measurement of intellectual capital elements affects the quality of accounting income	3.76	1.039
02	There is a need to measure the value of intellectual capital to accurately determine returns	4.03	0.802
03	There is a need to measure the value of intellectual capital to accurately determine costs	4.00	0.854
04	There is difficulty distinguishing between income resulting from investing in intellectual assets and income resulting from physical assets	3.92	0.798
05	The economic benefits generated by most intellectual assets can be verified	4.08	0.819
06	There is a direct relationship between the costs and benefits of elements of intellectual capital	4.13	0.798
07	There are models that allow measuring the costs of intellectual capital	3.62	0.883
08	There are models that allow measuring returns on intellectual capital	3.39	0.884

Source: Prepared by the researchers based on the results of SPSS.

- **Measurement Need:** Statements 02 and 03, with mean scores of 4.03 and 4.00, respectively, indicate a strong belief in the necessity of measuring intellectual capital to accurately determine revenues and expenses. This highlights the perceived inadequacy of traditional financial reporting in capturing the full impact of intellectual capital on financial performance.

- **Income Differentiation Difficulty:** Statement 04, with a mean of 3.92, points to the difficulty in differentiating income generated from intellectual assets versus physical assets. This reinforces the need for separate measurement and disclosure of intellectual capital to provide a clearer picture of its contribution to profitability.

- **Uncertainty of Economic Benefits:** Statements 05 and 06, with means of 4.08 and 4.13, respectively, reflect some uncertainty regarding the direct link between the cost of intellectual capital and its future economic benefits. This suggests the need for further research and analysis to better understand and quantify the long-term value generated by intellectual capital investments.

- **Measurement Model Availability:** Statements 07 and 08 reveal mixed opinions on the availability of models for measuring the costs and benefits of intellectual capital. While the mean scores (3.62 and 3.39) suggest a leaning towards agreement, the presence of "disagree" responses indicates a need for further development and refinement of such models.

A.3 Descriptive Statistics for Quality of Accounting Information

This table likely explores how intellectual capital measurement affects the quality of accounting information presented in financial reports. Analyze the mean scores and standard deviations for statements related to:

Table 5: Quality of Accounting Information.

N-S	Dimension	Mean	Standard Deviation
01	Measuring intellectual capital increases the credibility of accounting information	4.22	0.613
02	Measuring intellectual capital increases the comparability of accounting information	4.07	0.607
03	Measuring intellectual capital provides easy-to-understand information	4.08	0.591
04	Measuring intellectual capital leads to an increase in the proportion of appropriateness in accounting information	4.09	0.701

Source: Prepared by the researchers based on the results of SPSS.

- **Enhancing Credibility and Comparability:** Statements 01 and 02 have high mean scores (4.22 and 4.07), indicating strong agreement that measuring and disclosing intellectual capital improves the credibility and comparability of accounting information. This is crucial for stakeholders who rely on financial reports for decision-making.

- **Improving Relevance and Understanding:** Statements 03 and 04 also show relatively high mean scores (4.08 and 4.09), suggesting that including intellectual capital information in financial reports enhances their relevance and makes them easier for users to understand and interpret.

Based on the information provided in tables 2 (**Intellectual capital measurement**), 3 (**Quality of performance**), 4 (**Quality of accounting income**), and 5 (**Quality of accounting information**), we can analyze the relationship between intellectual capital measurement and the quality of financial statements.

- **Awareness of Importance:** There is a general agreement among respondents on the importance of accounting measurement and disclosure of intellectual capital. This is reflected in the high mean scores for statements related to the value of intellectual capital as an asset and its impact on the performance and market value of companies.
- **Measurement Challenges:** Despite recognizing the importance, respondents also acknowledged the difficulty in measuring intellectual capital due to the lack of standardized methods and the intangible nature of its components. This is evident in the responses to statements related to the difficulty in determining the financial value of intellectual capital and identifying its useful life.
- **Impact on Performance:** The study suggests a positive relationship between intellectual capital measurement and various aspects of performance, including:
 - **Quality of Performance:** Measuring intellectual capital helps identify strengths and weaknesses in performance, leading to better decision-making and improved overall performance (**Table 3**).
 - **Quality of Accounting Income:** Measuring intellectual capital allows for more accurate determination of revenues and expenses, leading to a better understanding of the company's profitability and sustainability (**Table4**).
 - **Quality of Accounting Information:** Measuring and disclosing intellectual capital enhances the credibility, comparability, and relevance of accounting information, making financial statements more useful for decision-making (**Table 5**).

A.4 Descriptive Statistics for Quality of Financial Statements:

Table 6: Descriptive Statistics for Quality of Financial Statements.

Dimension	Number of Items	Mean	Standard Deviation
Quality of Performance	07	3.32	0.860
Quality of Accounting Income	8	3.86	0.86
Quality of Accounting Information	4	4.11	0.628

Source: Prepared by the researchers based on the results of SPSS.

As shown in Tables 2 and 6, the average scores for all dimensions of both intangible asset measurement and financial statement quality indicate a high level of agreement among

respondents. This suggests that accounting professionals in Algeria recognize the importance of measuring intangible assets and believe it can positively impact the quality of financial statements.

B. Path Analysis

The SEM analysis demonstrated a significant positive relationship between the accounting measurement of intangible assets and the quality of financial statements. This suggests that implementing proper measurement practices for intangible assets can contribute to improved financial reporting and increased stakeholder confidence.

Table 7: Direct Effects of Accounting Measurement of IC on Quality of Financial Statements

Dependent Variable	Path Coefficient (β)	T-value	P-value	Significance Level
Quality of Financial Statements	0.592	12.545	0.000	Significant

Source: Prepared by the researcher based on the results of Smart pls.

The SEM analysis revealed a significant positive relationship between the accounting measurement of intangible assets and the quality of financial statements ($\beta = 0.592$, $p < 0.001$). This finding suggests that when companies implement proper measurement practices for their intangible assets, it can lead to a perceived improvement in the overall quality of their financial statements:

Table 8: Direct Effects of Accounting Measurement of IC on the dependent variables.

Path	Std. B (Standardized Beta)	Std. Error	t-value	p-value
Accounting Measurement of Intellectual Capital - > Quality of Accounting Income	0.549	0.059	9.340	0.000
Accounting Measurement of Intellectual Capital - > Quality of Performance	0.553	0.086	6.471	0.000
Accounting Measurement of Intellectual Capital - > Quality of Accounting Information	0.384	0.099	3.878	0.000

Source: Prepared by the researcher based on the results of Smart pls.

The table presents the results of testing the direct effects of accounting measurement of intellectual capital on various dependent variables:

- **Significant direct Effects:** The results indicate that the variable of accounting measurement of intellectual capital has significant direct effects on all the dependent variables« accounting income, true value of the company, and accounting information by affecting how intellectual capital is measured and accounted for.

- **Strength of direct Effects:** The standardized beta coefficients (Std. B) represent the strength of the direct effects. The strongest direct effect is observed on the quality of performance (0.553), followed by the quality of accounting income (0.549), quality of accounting information (0.384).

Despite the positive perceptions and statistically significant relationship observed in the study, it is important to acknowledge the challenges associated with measuring and disclosing intangible assets in the SCF system. The lack of specific guidelines and standardized metrics within the SCF framework creates difficulties for practitioners and may hinder the full realization of the benefits associated with intangible asset measurement (Holland, 2003).

Therefore, the study recommends the following actions to improve the accounting treatment of intangible assets in Algeria:

- **Developing a comprehensive framework:** The relevant authorities should collaborate with accounting professionals and academics to establish a clear and comprehensive framework for intangible asset accounting within the SCF system. This framework should draw upon international best practices, such as the International Accounting Standard 38 (IAS 38) on Intangible Assets, while adapting them to the specific context of the Algerian business environment (IFAC, 1998; IASB, 2005).
- **Standardization of metrics:** It is crucial to develop standardized metrics and methodologies for measuring and reporting intangible assets. This will ensure consistency and comparability across different companies, allowing stakeholders to make more informed decisions based on reliable and comparable information.
- **Capacity building:** Investing in training and educational programs for accounting professionals is essential to enhance their awareness and expertise in intangible asset accounting. This will equip them with the necessary knowledge and skills to effectively measure and disclose intangible assets in accordance with the established framework.

Conclusion

This study provides evidence that accounting measurement of intangible assets can significantly improve the quality of financial statements in the Algerian context. However, overcoming the existing challenges requires collaboration and commitment from various stakeholders to develop and implement a robust framework for intangible asset accounting within the SCF system. This will ultimately contribute to increased transparency, better decision-making,

Results

There is an urgent need to measure intellectual capital and include it in the financial statements, as it is the means that management can use to evaluate and develop the knowledge and information owned by the institution. In addition to this, including the list of intellectual capital in reports and financial statements is one of the means that can be used to disclose what The organization possesses human resources, knowledge capabilities, and economic added value that enables it to gain a competitive advantage.

The statistical results and deeper analysis confirm the importance of accounting for intellectual capital and highlight the need for:

- Developing a standardized framework for measuring and disclosing intellectual capital in Algeria.
- Exploring and refining measurement techniques for intellectual capital components.
- Integrating intellectual capital information into financial reports to provide a more accurate and comprehensive picture of an organization's value.

Recommendations

- Develop standardized measurement frameworks: Establishing clear guidelines for measuring and valuing intangible assets would improve consistency and comparability across companies.
- Enhance professional training: Accounting professionals need training on the recognition, measurement, and disclosure of intangible assets to ensure accurate and reliable financial reporting.
- Update accounting standards: Regulatory bodies should consider revising accounting standards to address the specific challenges of intangible assets and promote greater transparency in financial reporting.
- Promote voluntary disclosure: Companies can enhance the information content of their financial reports by voluntarily disclosing additional information about their intangible assets, such as their strategic importance and contribution to value creation.

Further research could explore

- The impact of different intellectual capital measurement models on specific industries or company sizes.
- The relationship between intellectual capital disclosure and investor behavior.
- The role of technology and big data in measuring and managing intellectual capital.
- By addressing these issues, Algerian companies can better understand, manage, and leverage their intellectual capital for sustainable competitive advantage and long-term success.

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