



## Factors influencing measurement practice of intellectual capital by firms for internal management and external disclosure

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### Abstract

The purpose of this paper is to examine the various factors influencing measurement practice of Intellectual capital by firms both for internal management and decision making and for external disclosure. The paper derives theoretical predictions from the previous literature and has based the study purely on the literature and the research gaps identified through the same. The study concludes with a finding that intellectual capital measurement and management is considered to be one of the most important component and it is very vital for company's strategic management and organizational development. It also identified that the measurement practice of firms depend on several factors such as size, culture, climate, the capital involved, the sector and most important of all is the understanding of the concept of intellectual capital measurement. It reveals that most of the firm's give more importance to factors directly involved in disclosure management and GAAP for performance evaluation. The dichotomy between internal and external factors is clearly made and this in contrast to the earlier studies makes the identified factors more reliable and generalizable.

**Keywords:** intellectual capital, disclosure, factors of IC, IC management practice

### Introduction

Intellectual capital is not just a fancy word but it represents the sum and substance of the existence of a company. Gone are the days that corporates were flaunting with slogans such as Men may come and Men may go the company goes on forever, today men that come and men that goes out of a company make a huge difference in the balance sheet and that is what we call as knowledge management and intellectual capital. Does this capital talk only about human resources? It's definitely a big no. Intellectual capital is also about a corporate focusing on areas of knowledge management which otherwise is ignored due to a shift in focus in the traditional era. Then, it was only about the Net profit, Gross profit and Book value. Research has been conducted in this field of value creation and value looked by the stake holders is far more than what the books of accounts could display. Research in the field of Intellectual capital has matured to such an extent that today it has become a norm in most of the corporates disclosure, but the fact of the matter lies in proper guidelines for a systematic approach in areas concerning the factors influencing intellectual capital.

### Literature Review

Studies related to the factors influencing intellectual capital were very general and lack a sense of direction, but one study which induced to ponder over and write this paper was the study conducted by Lina Uzienne and Evelina Stankute (2015), where they identified a set of influencing factors an basic features of IC measurement practice and they clearly divided the internal and external contributors leading to what and why

of Intellectual Capital. Ching Choo Huang (2010) in his study related to contingency factors influencing the availability of internal intellectual capital information found that business strategy and technological advancement of customer service relate positively to the availability of Internal IC information in Malaysian companies. Another study indicating the factor influencing intellectual capital disclosure by Portuguese companies by Ana Lucia Ferreira Colep CCL, and Manuel Castelo Branco refers to the disclosure made in the annual reports pertains to management processes, business collaborations, brands and the profile of workers. In a study conducted by Alexander Bruggen and Philip vergauwen (2009) on Determinants of intellectual capital disclosure-evidence from Australia, the authors address the issue of information asymmetry – one of the main problems between investors and firms – is not driving the decision of firms to disclose information on intellectual capital which could be added as an external factor influencing intellectual capital measurement practice. In the theory of (Kruger (Neels) & Johnson, 2010) <sup>[14]</sup> it is stated that intellectual capital measurement practice relates to only one factor whereas the study by (Nazari, *et al.*, 2011) <sup>[24]</sup> states that intellectual capital influencing factors could be many.

### Intellectual capital measurement reporting models

Before analyzing the various factors influencing Intellectual Capital measurement Models, it is important to research on the existing authentic models to measure intellectual capital. There are many researchers who have done their ground work to identify the best model but again it depends on the earlier

discussed attributes of corporates which absorb any of the model. It is also crucial to find out a single model which will suffice as a disclosure model. However, each firm identifies one model as per the nature of their firm. Research in this field has attempted to propose a common framework to measure and report intellectual capital. However, this concept is very context specific as it is very complex.

**Factors influencing intellectual capital measurement practice for internal management and external disclosure.**

Out of the many companies that disclose their intellectual capital figures to the stakeholders majority of them disclose only the following information as IC disclosure and the factors such as Management processes, Business collaborations, Brands, Profile of workers, Strategic alliance, Horizontal and vertical mergers, Venture capital, Global presence, Stakeholders and Technology advancements form a part of intellectual capital disclosure. The factors for internal management are dependent on the control factors of a firm such as the firm performance in terms of its profitability, expectations of its shareholders, the size of the firm, the kind of leverage the firm holds, their ownership pattern and their debt equity distribution.

The theory is developed to investigate the factors and “the information is obtained from statutory documents produced by the companies in the form of annual reports.” (Branco *et al.*,

2011).” Moreover in countries with low disclosure environments annual reports are still the most important document used by investors to assess corporate transparency” (Souissi and Khelif, 2012). However, importance is given by firm’s to comply with the regulatory requirements of corporate governance and adhering to the accounting standards, that is the sole reason for the unpopularity of the concept of intellectual capital measurement practice by firms.

The firms across industry be it information technology or automobile they focus on disclosure to stakeholder’s which appeal to value creation in terms for tangibles rather than the invisible intangibles. But, studies have proved that firm’s which have put in efforts to measure their knowledge and innovation have been profitable. To establish a relationship between intellectual capital elements and firm performance several studies have been conducted and the results are positive. However IC disclosure has a long way to go and efforts in that direction have started to bear fruit because of the rising popularity in value building models.

In understanding how and where IC is reported one can see it in the annual reports or sometimes it is elaborated in the financial statement or most often reported by the director. (Bontis, 2001) [20] States that Intellectual capital is majorly managed by top level management and most companies have realized the importance of Intellectual capital being a part of their disclosure.

**Table 1:** Showing factors influencing measurement practice of firms.

E X T E R N A L	Management processes	I N T E R N A L	Profitability	M E A S U R E M E N T M E T H O D S	<b>Direct Intellectual Capital Methods (DICM)</b>
	Business collaborations		Expectations of its shareholders		
	Brand Promotion		Size of the firm		<b>Market Capitalization Methods (MCM)</b>
	Profile of workers		Leverage the firm holds		
	Strategic alliance		Ownership pattern		<b>Return on Assets Methods (ROA)</b>
	Horizontal and vertical mergers		Debt equity distribution		
	Venture capital investment		Industry Affiliation		<b>Scorecard Methods (SC)</b>
	Global presence				
	Stakeholders Expectations				
	Technology advancements				

The above factors influencing a firm’s intellectual capital measurement practice. But the issues relating to intellectual capital does not get resolved by merely identifying factors. There are various measurement methods used in practice and some of the most common are identified in Table1. Again the method that is used to calculate intellectual capital depends on the internal factors for IC management and External factors for IC disclosure. The following methods are identified by researchers and their use is solely dependent on the factors.

**Direct intellectual capital methods (DICM):** estimate the dollar value of intangible assets by identifying its various components. Once these components are identified, they can be directly evaluated, either individually or as an aggregated coefficient. If such an estimate has to be made it should be made across all functional levels and thereby firms which are large in size use this method. Firms with higher debt ratio could also use this as the theory of leverage always indicates that a firm is smart if it has a high leverage. When the

company hold high profile employees and they would not do better without them follow this method as it is vital to capture every bit of intangible.

**Market capitalization methods (mcm):** calculate the difference between a companies'

Market capitalization and its stockholders' equity as the value of its intellectual capital or intangible assets. This method is ideally suitable for corporates whose balance sheet is loaded with capital and they are answerable to a large extent to the stakeholders or market reacts immediately to the companies decisions. Most of the answers that are sought after in creating a value based company is answered in this method. So firms' with ownership pattern and establishing identities through industry affiliation is suitable for this kind of a firm.

**Return on assets methods (ROA):** Average pre-tax earnings of a company and divide them by the average tangible assets of the company. The result is a company ROA that is then compared with its industry average. The difference is multiplied by the company's average tangible assets to calculate average annual earnings from intangibles. By dividing the above-average earnings by the company's weighted average cost of capital or an interest rate, one can derive an estimate of the value of its intangible assets or intellectual capital. This method is purely used for internal management process in terms of fulfillment the governance issues and also corporate disclosure. Firms who are particular in reporting every bit of information, specifically on their intangibles use this method.

**Scorecard Methods (SC):** Identify various components of intangible assets or intellectual capital and indicators and indices are generated and reported in scorecard or as graphs. SC methods are similar to DIC methods, except that no estimate is made of the dollar value of intangible assets. This method is useful for firms engaging in strategic alliance and also for firms who work to meet the expectation of stakeholders.

Among the listed methods corporates choosing a particular method or one or more methods is the challenge. Research has addressed this issue in several ways but the existing gap is one common method to measure intellectual capital for disclosure. This again brings back to the topic as to what factors induce a firm to choose one of the above methods to measure their intellectual capital or in totality do not measure IC as a separate disclosure but display in common parlance with the generally accepted accounting principles.

Table 1 indicates a structural cross function theory with indications as to the factors and their Correlation to the selected methods. The factors identified as per research are classified into external and internal, by taking reference from the summary of literature submitted by Lina Uziene and Evelina Stankute (2015).

## Conclusion

The intellectual performance of a firm should be managed well and anything that has to be managed should be measured. To measure intellectual capital every firm should adopt a measurement system that is much rooted in the language of

the firm. The importance of the firms vision mission, success and strategy factors must be investigated before adopting one single measurement practice. Any practice adopted should be scalable and must be generalizable across the firm. To enable firms to measure their IC component they should initially categorize the influencing factors on the basis of external and internal. Thereby this Value-chain support activity helps in the success of firms

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