

Trends and Progress in Research on Intellectual Capital Disclosures in the Indian Context

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ABSTRACT

Intellectual capital is essential to enable firms to remain competitive. It represents the future earning potential of the company and is of great value to investors, analysts and stockholders. In India, the disclosure of intellectual capital is at a nascent stage and so it the research related to intellectual disclosure. This paper aims to examine the research examining intellectual disclosure in the Indian context and identifies avenues for research in the domain.

1. Introduction

Economic growth and competitiveness of firms in the present business environment depends largely on intellectual capital (IC) rather than on physical assets (Joshi and Ubha, 2009). IC is manifest in people and processes of an organization and represents the future earning potential of firms. It is a crucial factor to sustain competitive advantage and is the preeminent value creator in firms and economies (Guthrie et al., 2006). In knowledge intensive firms, tangible assets and resources comprise only around fifteen to twenty five percent of firm value (Ballou et al., 2004) making it imperative for firms to value, manage and disclose IC. As IC does not meet the accounting definition of an asset, the existing accounting standards are inadequate to recognize and value IC at its fair value. This has widened the gap between the market value and book value of firms. The financial statements prepared following traditional accounting standards are therefore incomplete in respect of IC disclosures. Investors, analysts and stakeholders are constantly on the lookout for information on IC for better investment decisions. In response to the demand for IC related information and to reduce information asymmetry, firms are forced to publicly disclose their IC.

Research in disclosure and measurement of intellectual capital has provided evidence that capital markets respond favorably to intellectual capital disclosures (Lev, 2001) and increase the intrinsic value of the firm (Garcia-Ayuso, 2003). This has led to studies on IC reporting practices and the extent of IC disclosures in firms across different countries. The studies have predominantly measured the IC disclosures in the annual report using content analysis (Bontis, 2003; Bozzolan et al., 2003; Abeysekera and Guthrie, 2005; Pablos, 2005; Kamath 2008a, 2008b, Singh and Kansal, 2011). Lack of consistent methodology in construction of the disclosure index has rendered the results incomparable. Moreover, most of the studies concentrate on developed nations and very few studies have been conducted in developing countries (Kamath, 2008b). IC research in developing countries is therefore in a nascent

stage (Singh and Kansal, 2011) providing scope for future research.

India is an emerging global economy with tremendous growth in sectors such as IT, pharma, technology etc., all of which rely more on IC rather than physical assets. The management of IC has therefore assumed new dimensions in India. The Indian Accounting Standards do not have a defined framework to measure or report IC. Research on IC in India is limited to specific industry sectors with very little practical implications (Singh and Kansal, 2011). The increasing emphasis on IC by the government, industry and firms creates increased need to study IC measurement and disclosure in Indian firms and to suggest appropriate methodology or framework for reporting IC. This paper attempts to trace the growth of research in IC, with emphasis on IC disclosure studies in India, to identify the gaps for future research studies. Section 2 details the meaning of IC and the various definitions used in research. Section 3 consolidates the components of IC as identified in prior research; section 4 provides a review of literature relating to IC disclosures and section 5 provides the avenues for further research in the field.

2. Meaning and Definition of Intellectual Capital

The term Intellectual Capital is of recent origin and has been used in the place of intangible assets, goodwill and intellectual assets. There is no consensus on the definition of IC, leading to a plethora of definitions (Abeysekera, 2008a, 2008b). Intellectual capital, in simple accounting terms is the difference between the market value and book value of a firm (Strassmann, 1999). It is not synonymous with the intangible assets of a firm, but is a subset of intangible assets. It is the economic value of two categories of intangible assets of a company: organizational (structural) capital and human capital. Organizational capital includes distribution networks, supply chains, proprietary software etc. Human capital refers to the human or people assets of the organization such as staff, customers, suppliers etc (OECD, 1999).

According to Stewart (1991), IC is the sum of patents, processes, management skills, technologies, information about customers, suppliers and old-fashioned experience possessed by the firm. In short it is the sum of everything that everybody in a firm knows which gives it the competitive edge in the marketplace. It is intangible and does not have a physical or financial embodiment. Hudson (1993) defines intellectual capital as the combination of personal assets of individuals in a firm which is a result of genetic inheritance, education, experience and attitude about life and business. It is also described as the knowledge and knowing capability of a social collectivity, such as an organization, intellectual community or professional practice (Nahapiet and Goshal, 1998).

Strassmann (1999) defines IC as the creative energy of an organization leading to value creation. As a reliable indicator of the future earning potentialities or net worth of a company, it is in one form or other implied in recent economic, managerial, technological and sociological developments in a manner previously unknown or largely unforeseen. The most comprehensive definition was provided by Roos and Roos (1997). According to them IC is the human capital (knowledge capital, skill capital, motivation capital, task capital), business process capital (flow of information, flow of products and services, cash flow, co-operation forms, strategic processes), business renewal and development capital (specialization, production processes, new concepts, sales and marketing, new co-operation form), as well as customer relationship capital

(customer relationship capital, supplier relationship capital, network partner relationship capital, investor relationship capital).

Though the above said authors agree on the significance of IC in value creation of a firm, the definitions are diverse. Some authors have a narrow perspective and include only human assets (Hudson, 1993) whereas a few others have a broader view and include culture, routine, organization processes and practices in the scaffold of IC (Brookings, 1996; Edvinsson, 1997). To sum up, IC is the aggregate knowledge, skill and experiences existing in explicit or tacit form at the individual and organizational level to enable efficient functioning and value creation of firms.

3. Components of Intellectual Capital

Several authors have identified a variety of components that can collectively be termed IC. The components vary based on the objective of research. But a broad consensus based on the developments in the field has identified three common components of IC, human capital, organizational structure/internal capital and relational /external capital (Edvinsson and Malone, 1997; Sveiby, 1997)

The earliest classification of IC was provided by Edvinsson (1997) and is represented in the Skandia Value Scheme as in Figure 1.

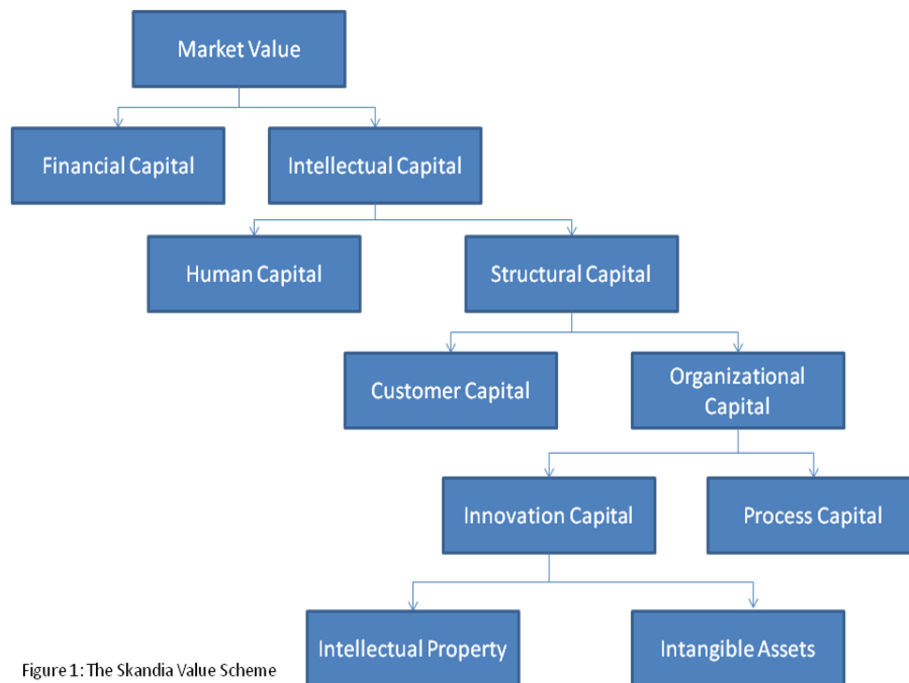


Figure 1: The Skandia Value Scheme
Source: Edvinsson (1997)

The classification includes human capital and structural capital as components of IC. Human Capital is the knowledge that employees take with them when they leave the firm. It is the sum of the knowledge, skills, experience and abilities of people (Meritum, 2002). This capital is a source of innovation and strategic renewal to a firm (Mohd Saleh et al., 2009).

Structural Capital is defined as the knowledge that stays with the firm at the end of the working day. It is the knowledge

that is independent of people (Mohd Saleh et al., 2009) and includes organizational routines, procedures, systems, cultures, databases etc., that support the employees in their tasks (Meritum, 2002). This capital comprises of both internal and external components. The internal component is represented by the organizational capital and the external aspect is termed customer capital. The aspect of customer capital was extended by later researchers (Bontis, 2002) to include the firm's relationship with customers and all other external parties such

as suppliers, R&D partners and other stakeholders (Meritum, 2002). These external relationships contribute to image, reputation, customer loyalty and negotiating power with financial entities and environmental activities (Mohd-Saleh et al., 2009). Sveiby (1997) uses the classification that recognizes customer capital, individual capital and structural capital and is similar to Edvinsson's (1997) classification. Brooking (1996) views IC as a resultant of four types of assets, market assets, intellectual

property assets, human-centered assets and infrastructure assets. Apart from the above mentioned models numerous other models that are extensions or slight modifications of the above have been used (Bontis, 1998; Lev 2001; Joshi and Ubha, 2009). The components used in all models converge on three major constructs that are depicted by Bontis (1998) as in Figure 2.

Conceptualization of intellectual capital

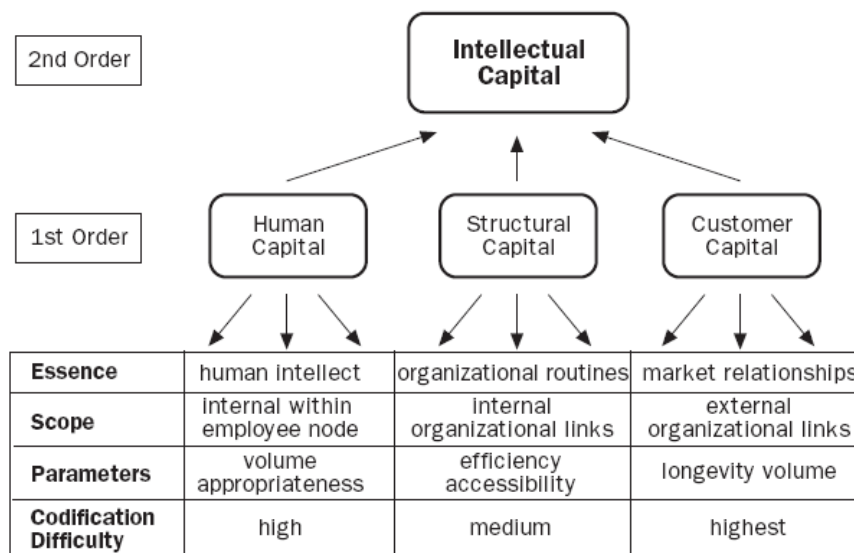


Figure2: Conceptualization of Intellectual Capital
Source: Bontis, 1998.

The development of numerous models indicates the growing research interest in the subject. On the contrary, the incessant conception of new or revised IC model slows down the progress in research. The disparity entails research using new models to start from scratch as results from earlier studies would not be based on the new model. Harmony among researchers on the components of IC and framework would help advance the nature and scope of IC studies.

4. Disclosure of IC – Review of Literature

Traditional accounting systems and standards do not accommodate reporting of IC. The adoption of Human Resource Accounting was the first step to quantify and disclose human assets. Developments in accounting standards have led to firms disclosing their intangible capital in their annual reports. Nevertheless, IC is inadequately reported with emphasis on traditional intangibles such as goodwill, patents, and copyrights. As information on IC is not mandated most of the information in annual reports relating to IC is voluntary.

Prior empirical research has used various media in which a firm may report its IC. They include annual reports, company websites and IPO prospectus (Campbell and Rahman, 2010). But majority of the studies use annual reports as audit object (Brennan, 2001; Bontis, 2003; Bozzolan et al., 2003; Abeysekera and Guthrie, 2005; Pablos,2005 ; Kamath 20008a, 2008b, Singh and Kansal, 2011) as it is the most important and cheapest means of communication for the firm (Botosan, 1997). It is easily available and produced at regular intervals with

comprehensive and compact information of management attitudes and policies. Although they may be used as a promotional document (Abeysekera, 2008b), it provides a scope to go beyond financial reporting to reflect the organizational values and position (Niemark, 1995).

Content analysis has been the most prominent methodology in IC reporting studies (Brennan, 2001; Bontis, 2003; Bozzolan et al., 2003; Abeysekera and Guthrie, 2005; Pablos,2005 ; Kamath 20008a, 2008b, Singh and Kansal, 2011). This is due to the fact that IC is reported by firms in narrative or qualitative form rather than in specific quantitative form. Several models to measure and report IC have been developed by various researchers and firms (Brooking, 1996). Most of the IC reporting studies till date are country-specific and limited to certain knowledge intensive industry sectors. Only few longitudinal and cross-country studies have been conducted. A majority of the available literature focuses on the developed countries and not many studies have been conducted in the developing countries.

Early research in the field of IC focused on defining IC and on identifying methods of classification (Brennan and Connell, 2000). Several frameworks that were outcomes of these studies (Sveiby, 1997; Booking, 1996; Bontis, 2003) have been the foundation for empirical studies in the field of IC reporting and management. Most of these studies concentrated only on the external reporting of IC.

Guthrie et al. (1999) carried out a content analysis to assess IC reporting of Australian firms using a sample of top 20 firms.

Using the Intangible Asset Monitor developed by Sveiby (1997) the study indicated that despite a high level of awareness it was rarely reported in annual reports. The authors also noted that the disclosures were more often in discursive rather than numerical terms. The study mentioned that firms did not follow a consistent framework to report IC. Reporting on external capital was the highest (40%) followed by internal and human capital (30%).

A similar study was conducted in Ireland (Brennan, 2001) using the methodology adopted by Guthrie et al (1999). Based on data gathered from 11 firms in the technology and people oriented sectors, the study found that Irish firms had substantial intangibles and IC assets but the level of IC disclosure was found to be low. As in the previous study, the IC disclosures were narrative/qualitative and not quantitative. Though external capital was the most reported, the individual items disclosed were significantly different from those found in Australian firms (Guthrie et al., 1999).

Bontis (2002) in a study on 10000 Canadian firms found only a significantly small number of IC disclosures. The study used a content analysis framework with 39 terms and found only 74 instances of IC disclosure, the most frequently reported term was 'intellectual property'. The study also observed that most of the disclosures were in the management discussion section of the annual report. No statistically significant differences in terms of employee size or shareholders equity were observed between the firms that disclosed IC terms and those that did not. But, the study by Williams (2001) in 31 firms in UK found that factors such as leverage, industry exposure and listing status influenced IC disclosures.

Abeysekera and Guthrie (2005) in a study of 30 firms listed on the Colombo Stock Exchange found external capital to be the most reported category followed by human capital. As in the study by Brennan (2001) significant differences in the items disclosed were observed. The framework consisted of 45 items categorized into internal capital, human capital and external capital. The study also found that changes in market capitalization had no impact on the IC reporting but found an increase in disclosures over the two year study period. Based on the country-specific developments the authors found that IC reporting was proactive rather than reactive.

Guthrie et al., (2006) in a study on IC reporting in Australian and Hong Kong firms found that the level of voluntary IC disclosures was low in both countries. The study was performed in two stages, the first was in 1998 with 20 Australian firms and stage 2 was in 2002 with 50 Australian and 100 Hong Kong firms. The authors observed inconsistency in reporting IC among the sample firms and stated the need for a common accepted framework for IC reporting. IC reporting was found to be qualitative rather than quantitative and the authors stated that 'there continues to be a gap between the rhetoric and the reality with regard to the measuring, valuing and reporting of IC'. The Australian firms had higher disclosures than the Hong Kong sample and external capital disclosures were highest in both countries. The second highest disclosures in Australia were in the internal capital category whereas in Hong Kong it was

human capital. The study found that most of the IC disclosures were in the 'Business/Operational' section of the annual report.

A similar study in the Australian biotechnology and healthcare firms showed that structural capital was frequently disclosed than relational capital (Bruggen et al., 2009). The effect of industry and firm size on the IC disclosures is evident from the results of these studies. Similar results were reported by Vergauwen et al., (2007) in a study among IC intensive firms in Sweden, UK and Denmark.

A comparative study on IC reporting trends between Singapore and Srilanka (Abeysekera, 2008a) revealed significant differences in IC disclosures. The study indicated that human capital was the most reported category in Singapore whereas in Srilanka external capital was the most reported. It was found that disclosures increased over the three year period of study in both countries. This was attributed to the availability of resources, legal requirements and accounting regulations. White (2010) in a study on the nature and extent of IC disclosures of Australian and UK biotech companies found that IC disclosures were related to size of firm. The study reported that employee related disclosures were high in UK than in Australia. The country effect had a significant influence on the extent of disclosures as UK is a relatively more mature market than Australia. A longitudinal study to examine the IC reporting in Marks and Spencer (Campbell and Rahman, 2010) found an increase in IC reporting during the study period 1978-2008. The increase in the relational capital was higher and the study noted the increase in narrative reporting in comparison to factual reporting. The study also reported an increase in the number of textual clauses devoted to IC reporting.

IC reporting and disclosure studies in the Indian context are limited. Kamath (2008b) conducted a study on 30 Indian firms from the technology, entertainment, communication and knowledge industry. The study used the framework developed by Bontis (2003) with 39 terms. Only 13 of the 39 terms were found in the annual reports with no significant correlation between the occurrence of the term 'IC' and the size of the firm based on its market capitalization. The study also reported that majority of the firms did not have a separate statement of IC nor a clear procedure for its measurement. The study reports that the IC disclosures in the Indian context are below the American and European firms.

Joshi and Ubha (2009) conducted a study of IC disclosures in the Indian knowledge sector with a sample of 15 leading IT firms and found the level of IC reporting to be very low. The results showed that only 36% IC disclosure. The annual report of Infosys Technologies Ltd was found to have the maximum disclosure (13 items) and was the only firm to have adopted a framework (Sveiby's Intangible Assets Monitor) for IC (Kamath, 2008b) and to mention it explicitly. The study recommended the intervention of the regulatory bodies to create awareness about IC and its reporting among firms.

A study in the top 20 listed firms in the Indian Pharma sector (Singh and Kansal, 2011) found ICD to be low, however there were significant variations in disclosure between firms. Relational capital was the most frequently disclosed category.

The study established weak negative correlation between IC valuation and its disclosure and suggested the development of specific indices for disclosure. A study by Bhasin (2011), on the IC reporting of IT sector firms in India during the period 2007-09 reported lack of consistency in disclosure practices. The study confirmed that IC reporting in Indian firms is negligible (Joshi et al., 2012; Sen and Sharma, 2013) in comparison to other countries. The reason was attributed to the lack of preference for ICD by the mentors of the firms.

Studies comparing ICD of Indian companies with Chinese firms found the extent and quality of disclosure of Indian companies was above those of the Chinese. (Wang et al., 2016). Similar results were reported by Joshi et al., (2012) in comparison to the Australian companies. The study also reported that ICD in Indian companies have increased over a period of time. A study comparing Indian companies with Pakistani companies found that ICD is low in both countries (ul Rehman et al., 2016). Most of the studies found that traditional sector firms had lower ICD than newer sectors (Mehrotra et al., 2017). Size of the firm and number of employees were found to be major determinants of ICD in India (Kamath, 2017; Seng et al., 2018; Sharma and Dharni, 2017).

The above studies indicate that although firms possess IC and nurture its creation, it is not disclosed in appropriate form. ICD is still in a nascent stage with no definite framework for reporting. The various definitional issues and ongoing methodological issues question the validity of prior research (Abeysekera, 2006) and offers plethora of options for future research.

5. Avenues for further investigation

India is an emerging economy with lot of emphasis on knowledge based industries. The opportunities for growth in emerging sectors coupled with appropriate management of IC will create greater value for firms and its stakeholders. Despite operational difficulties and inconsistencies in the adoption of ICD and management practices, transformation of IC to financial returns generates ample scope for research.

Empirical work in India is limited to certain sectors. The findings across these studies indicate a very low level of disclosure and inconsistency in reporting IC. The lack of motivation to concentrate and report IC has also been observed. Most of the empirical studies use small samples (Kamath, 2008b; Joshi and Ubha, 2009; Singh and Kansal, 2011) or study the practices adopted by individual firms (Pablos,

2005). Studies with large sample size can provide better insights about IC disclosure practices and trends specific to India.

The focus of most of the research studies in ICD has been through information presented in the annual reports. However, in today's world of information overload, ICD through annual reports sounds absurd. Given the technological advancements, the communication channels of the company have moved beyond the traditional reporting channels. The stakeholder focused companies prefer to communicate more directly to the concerned stakeholders rather than through a generic medium. Hence, future research on ICD should gather data not just from one channel but from multiple sources (Garanina and Dumay, 2017).

Most of the studies done in the Indian context are ostensive rather than performative (Cuozzo et al., 2017). Measuring and indicating the ICDs and comparing it with other firms or sectors or countries does not yield information that can be used by companies to improve their reporting practices. Case study based information would be more relevant to India as it would help companies to share and thereby motivate other firms to engage in ICD.

The competitive edge that a firm possesses due to IC is relevant to all sectors and not solely to those that rely on intellectual/knowledge assets. Future research can focus on traditional industry sectors that may have IC in tacit form. As disclosures in firms are based on the costs and benefits that accrue due to such disclosures a study that examines the perception of managers on IC reporting and measurement would provide greater insights into the IC disclosure environment in India.

6. Conclusion

The paper attempts to provide an overview of research in the field of IC, specifically in the disclosure and its measurement. In the knowledge-based economy conventional accounting and reporting systems convey very little information on the intangible and intellectual assets. The ways through which a firm can report its IC and manage it efficiently are limited. Research in the field is still exploratory with vast gaps between research and practice. The scope for research in the field is vast for an emerging economy like India. The study indicates the need for consolidation of the various methodologies used in prior research and to conduct studies that provide practical solutions for IC reporting.

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