Intellectual Capital Reporting: A Cross-Country Study

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Abstract

'Knowledge' being the new engine of corporate development has become one of the great clichés of recent years. Knowledge, innovation, information-technology, and people are the key contributories in the future of any organization, and IC is the driver of market value in the knowledge economy. Intangibles and how they contribute to value creation have to be appreciated so that the appropriate decisions can be made to protect and enhance them. There must also be a credible way of reporting those intangibles to the market to give the investors comprehensive information to assist in valuing the company more accurately. At present, reporting of IC information across the globe is done by very few leading companies, purely on a 'voluntary' basis. Unfortunately, the omission of IC information may adversely influence the quality of decisions made by shareholders, or lead to material misstatements.

This study attempts to provide an insight into the style of IC reporting done by the top IT-sector corporations from 'India' and 'Australia'. In order to survey the recent IC reporting practices, we conducted a 'comparative' study of 16 Indian and 20 Australian companies in which the "content analysis" was performed on their annual reports. The results of this study confirmed that "IC reporting by the companies from India and Australia are found to be low, mostly reported in a narrative form, and IC reporting had not received any preference from the mentors of these corporations." A major recommendation for corporations is to develop strategic and tactical initiatives that provide for 'voluntary' disclosing of IC. These initiatives may initially be used for internal management purposes, but an external stakeholder-focus IC report should be the ultimate long-run goal.

Keywords: Intellectual capital, voluntary reporting, information technology corporations, India, Australia.

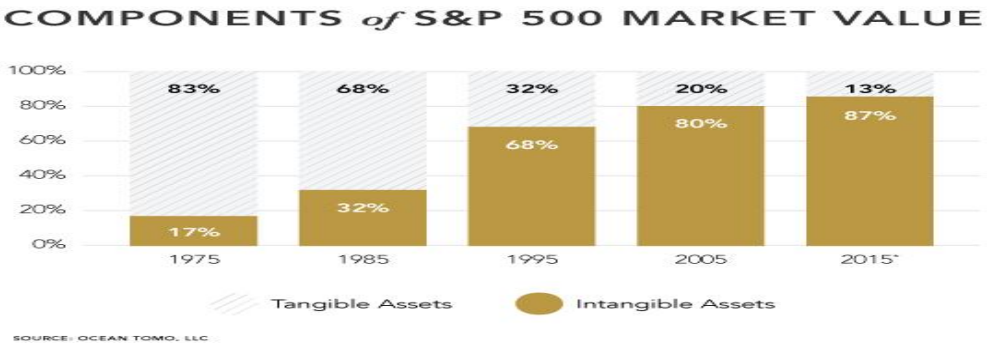
Introduction

The 21st century is heavily dominated by 'knowledge' economy and the world is changing rapidly from an 'industrial' economy to a 'knowledge' economy. Rise of the knowledge economy underpins the importance of 'knowledge' management, 'intellectual' capital, and 'innovation' in economic development (Rodrigues et al., 2015). In fact, there is no doubt that successful companies tend to be those that continually innovate, relying on new technologies, skills and knowledge of their employees, rather than physical assets, such as plant or machinery. Indeed, value can be generated by intangible assets (IA) not always reflected in the financial statements (FS); and forward-looking companies have realized that these are an integral part of fully understanding the performance of their business. Thus, systematic measurement and disclosure of intangible assets (IA) precisely and accurately is very important, because they have a positive and significant effect on the firm's market value (Gamayuni, 2015). At the height of the dotcom boom, companies with almost no tangible assets (TA) in the traditional sense of the word were having their stocks more highly rated than many of the stalwarts of global industry.

Much of the discussion about intangibles thus grew out of early attempts to account for the sometimes staggering difference between the so-called book value (BV) and market values (MV) of companies. Further, Bhasin (2015) argues that "a firm's most valuable and important resources are its IC, including IA. Tangible assets (TA) can be easily imitated or acquired in the open market. Therefore, by definition, they cannot be strategic assets or advantage creating resources. Conversely, IC is most often internally generated and embedded in the skills and experience of its employees, its processes, procedures and routines, and its information repositories. Because of these characteristics, they are unique, difficult to imitate and valuable. In other words, they are advantage-creating resources."

Various estimates indicate that "intangible" assets (IA) currently constitute about 60-75% of company value, on an average. In 1995 it was found that a major part (68%) of investment goes into IA, such as research and development, IT software, education and competences and internet. However, in 2009, IA was 81% of investments, which jumped to the level of 87% in 2015, an all-time high for the years covered by the firm's research, which extends back to 1975, as shown in **Figure 1** graph. Hopefully, the rising trend will continue in future. Data reflected in the chart below reveals that IA value of the S&P 500 grew to an average of 84% by Jan. 1st, 2015, an increase of four percentage points over ten years. Here, Stathis (2015) reported, "Within the last quarter century, the market value of the S&P 500 companies has deviated greatly from their book value. This 'value gap' indicates that physical and financial accountable assets reflected on a company's balance sheet comprises less than 20% of the true value of the average firm," explained Malackowski, Ocean Tomo's Chairman." Further, Lev (2001) compared that relationship between market value (MV) and book value (BV) of shares. In 1970, it was 1:1 and in mid-1990 it had increased to an average of three times. This statistical information provided an insight into the growing importance of IC. As quoted by Zambon and Monciardini (2015), "Lev pointed out that intangibles *per se* are inert, like bricks." Inert means to be in a state of doing little or nothing. Therefore, the only interest in intangibles *per se*, is when you try to sell them (patents, brands, software etc.). What is interesting to managers, policy-makers and investors is how intangibles interplay with other resources to create value. In other words, focusing only (or mainly) on the issue of measuring intangibles (accounting, disclosing and surveying IC), one runs the risk of looking at the 'finger' rather than the 'moon'. Looking at the moon, in this case, means to focus on IC as strategic resources, i.e., resources that create economic value are rare and difficult for competitors to imitate."

Figure 1 Graph



"No doubt, intangible assets (IA or IC) are enablers and sources of value to business, as they transform resources into value-added performance. Therefore, the corporate world is now devoting a lot of time and effort to manage its "intellectual" assets in order to improve its shareholder's wealth," stated Bhasin (2011c). According to Heitman (2016), "For centuries, executives expertly managed the total productivity of tangible assets, such as plants and equipment. They monitored both efficiency and effectiveness because tangible assets, or "things," historically accounted for more than 80% of business value. But in the last 40 years, tangible assets have declined to 15% of business value, while intangible assets now generate 85% of value." The traditional point of view has changed and companies have shifted their focus from investments into tangible assets to investments in intangibles (Survilaite et al., 2015). Therefore, the corporate world is now devoting a lot of time and effort to manage its "intellectual" assets in order to improve its shareholder's wealth. Despite growing interest and demand for IC information, prior research till date suggests a persistent and significant variation, both in the 'quantity' and 'quality' of information reported by firms on this pivotal resource.

As existing economic and business metrics track a declining proportion of the real-economy, the deficiency and inconsistency in the disclosure of IC-related information is creating growing information "asymmetry" between 'informed' and 'uninformed' investors. This provides a fertile ground for informed investors to extract higher abnormal returns (Chiucchi et al., 2008). Thus, IC is increasingly being recognized as having much greater significance in creating and maintaining 'competitive' advantage and shareholder 'value'. This clearly calls for a refreshed understanding of business principles, information disclosure, and decision-making processes related to IC. This study is an attempt to raise awareness of the need for companies of all sizes to manage and communicate the value of their business beyond that captured by numbers alone. Some companies, usually large, have already implemented various intellectual capital (IC) measurement tools and techniques. The rest see themselves as being too busy simply surviving to worry about what seems like an unnecessary luxury. But this is still a developing field, with contributions from many disciplines, so the lack of consensus is not surprising. More experimentation and convergence in terminology and tools will eventually be necessary if the concept of intellectual capital is to become widely accepted and put into practice.

This is not an attempt to criticize or devalue the traditional model of financial reporting. Some intangibles are already included on balance sheets; others are not, for a reason. Traditional reporting has served its purpose well, but now forms only a part of the jigsaw of how value is created and communicated. Effective strategic and operational decision-making hinges on that information being relevant, timely and robust – and that means it has to consist of more than just numbers. There can be little doubt that looking beyond the assets reported in financial statements should be a critical exercise for every organization wholly or partly dependent on intangibles for its value creation. Finance professionals should be at the forefront of this process, using their skills and expertise in measurement and control to develop systems capable of accommodating intellectual capital. 'Intellectual capital is the group of knowledge assets that are attributed to an organization and most significantly contribute to an improved competitive position of this organization by adding value to defined key stakeholders.' However, systematic measurement and disclosure of intangible assets (IA or IC) precisely and accurately is very important, because they have a positive and significant effect on the firm's market value (Gamayuni, 2015). Therefore, accounting standards should be concerned about this, without further delays. The inclusion of IC information in the corporate FS would result in a balance sheet that more realistically describes the value of the company, and displays all relevant assets from which the company expects to obtain benefits in the coming years.

The Concept of Intellectual Capital

It should be noted that "the terms intangible assets, knowledge assets/capital, or intellectual assets/capital are interchangeable and very often used as synonyms. The term IA can often be found in the accounting literature, whereas the term knowledge assets is used by economists, and IC is used in management and legal literature, but all refer essentially to the same thing," concludes Bhasin (2007). The terms intangibles and intellectual capital are used to refer to the same concept. Both are applied to non-physical sources of future economic benefits that may or may not appear in corporate financial reports. However, these two terms tend to be used slightly differently: Intangibles is an accounting term, whereas the Intellectual Capital was coined in the human resources literature and is mainly used in this field. Further, Bhasin (2016) argues that "a firm's most valuable and important resources are its IC or IA. Tangible assets (TA) can be easily imitated or acquired in the open market. Therefore, by definition, they cannot be strategic assets or advantage creating resources. Conversely, IC is most often internally generated and embedded in the skills and experience of its employees, its processes, procedures and routines, and its information repositories. Because of these characteristics, they are unique, difficult to imitate and valuable. In other words, they are advantage-creating resources."

The concept of IC measurement, management and disclosing is relatively new. Accountants, business managers and policy makers have still to grapple with its concepts and detailed application. As expected, definition of IC varies substantially. According to Stewart: "It has become standard to say that a company's intellectual capital is the sum of its human capital (talent), structural capital (intellectual property, methodologies, software, documents, and other knowledge artifacts), and customer capital (client relationships)." Thus, IC is a combination of human capital—the brains, skills, insights, and potential of those in an organization—and structural capital—things like the capital wrapped up in customers, processes, databases, brands, and IT systems. It is the ability to transform knowledge and intangible assets into wealth creating resources, by multiplying human capital with structural capital. Sveiby, in fact, first proposed a classification for IC into three broad areas of intangibles, namely, Human capital, Structural capital and Customer capital—a classification that was later modified and extended by replacing customer capital by *relational capital*. Some examples of IC are shown in **Table-1**.

Table-1: Components of Intellectual Capital.

Human Capital	Structural Capital	Customer Capital
Knowledge Competence Skills Individual & Collective Experiences Training Communities of practice...	Business processes Manuals/ policies Information systems Research findings Trademarks Brands...	Customer relations Customer Loyalty Repeat business... Relational Capital Relations with vendors Investor trust and feedback...

The available literature has identified three sub-phenomena (or categories) that constitute the concept of IC, namely, human, relational, and organizational capital. First, "human capital" represents the knowledge, experience and skills of the employees of the firm. It also reflects the commitment and motivation of the employees as a result of their continuance in the firm. Top Indian conglomerate, Reliance Industries Limited states, "The Reliance's employee skills are its competitive muscle. Its skills differentiate Reliance from its competitors—whether it be through the speedier implementation of a project or in its implementation at a cost which is significantly lower than that of the competition, or in the ability to extract more out of capital equipment, even when it ages. These skills are germinated in the Reliance culture." Second, "relational capital" reflects the organizational value that emerges not only from a firm's relations and connections with customers, but also with current and potential suppliers, shareholders, other agents, and the society in general. Finally, "structural capital" shows a firm's supportive structures for knowledge creation and deployment, as well as, the set of knowledge, skills and abilities embedded in the organizational structure.

One of the most comprehensive definitions of IC is offered by the Chartered Institute of Management Accountants (CIMA): "The possession of knowledge and experience, professional knowledge and skill, good relationships, and technological capacities, which when applied will give organizations competitive advantage." Similarly, Sveiby suggests that the concept of IC can be categorized into human, structural and organizational capital, while Guthrie et al. offers an alternative categorization: internal structure, external structure and human capital. The various forms of IC reporting provide valuable information for investors as they help reduce uncertainty about future prospects and facilitate a more precise valuation of the company. However, financial reports fail to reflect such a wide-range of value-creating intangible assets, giving rise to increasing information asymmetry between firms and users, and creating inefficiencies in the resource allocation process within capital markets.

When there is a large disparity between a firm's "market" value and "book" value, that difference is often attributed to "IC". Market value is, of course, the company's total shares outstanding times the stock market price of each. Book value is the excess of total assets over total liabilities. But what is the value of IC? Measuring the value of IC is difficult, but there are methods that can do it. As per a study conducted by Pike and Ross, they have categorized 12 different approaches to measuring IC, and another researcher has identified more than 30. Moreover, IC measurement methodology is one of the cornerstones in IC theory development. "Some of the prominent models/methods for measuring and estimating IC of a company are: Skandia Navigator, Organizational IC, IC-index, Technology Broker's IC Audit, Intangible Asset Monitor, MVA and EVA, Citation Weighted Patents, Tobin Q's Ratio, Human Resource Accounting, Balanced Scorecard etc." added Bhasin (2014). Undoubtedly, IC measurement and management practices significantly differ among countries, industries or companies. However, it must be kept in mind that the process of managing and reporting on IC is highly idiosyncratic and unique to each and every firm. There is no universally valid recipe; each company should develop its own process of IC measurement and disclosure. Bhasin (2015a) reported, "The IC Report is the report wherein the company 'discloses' on its IC. It is the 'logical' conclusion of the IC management process: communicating to stakeholders the firm's abilities, resources and commitments in relation to the fundamental determinant of the firm's value. Regardless of who is responsible for the preparation of the IC Report, top management should be committed to and engaged in the preparation of the IC Report? Finally, the IC Statement may be published together with, or at the same time, as the annual financial report is disclosed."

Literature Review

The main ICD studies were typically cross-sectional and country-specific, although some longitudinal studies have been reported too. Some of the leading ICD studies were conducted in Australia, UK & Ireland, Sweden, Canada, Malaysia, Sri Lanka, New Zealand, Bangladesh and India. While most studies employed "content analysis" as the research methodology, other studies have used questionnaire surveys. Despite the fact that the importance of IC has increased in recent times, there are inadequate disclosures of IC in the FS of companies.

The purpose of Kamath (2008) study was to examine the extent of voluntary ICD in India's emerging information, communication and technology sector and the relationship between the size of the firm and the extent of disclosures. Content analysis of the 30 technology, entertainment, communication and other knowledge (TecK) companies listed on the Bombay Stock Exchange is carried out. A list of intellectual capital (IC)-related terms is searched for its presence or absence within the annual reports of these forms for the financial year 2005-2006. The results find significantly small extent of IC disclosures in Indian firms. However, Bhanawat's (2008) study measured the IC of companies by applying difference between market value and book value of firm. A comparative study by Bhasin (2011) provided an insight into the style of IC disclosures done by the IT-sector corporations, both from India and Australia. The author conducted a comparative study of 16 Indian and 20 Australian companies, in which the 'content analysis' was performed on their annual reports. The results of study confirmed that "IC disclosure done by these companies from India and Australia were found to be low, mostly reported in a narrative form, and IC disclosure had not received any preference from the mentors of these corporations." Singh and Kansal's (2011) paper aims to investigate inter-firm IC disclosures and its variations in top 20 listed pharmaceutical companies in India, study the category wise and element wise IC disclosures (ICD), find out the impact of ICD on the creation of IC in monetary terms, find out correlation between IC valuation and its disclosure, and test significance of correlation Although top 20 companies of knowledge-led industry, "ICD are low, narrative and varying significantly among companies. ICD score varies in range of 4 to 36 against expected score of 96."

However, in another research work, Bhasin (2012) conducted a longitudinal study to analyze how Indian firms—Reliance Industries Limited, Balrampur Chini Mills, and Shree Cement Limited—measure and report their IC reports. The author also conducted a study of 16 Indian IT corporations by applying content analysis on the 2007 to 2009 annual reports. The results of this study confirmed that "IC disclosure in these IT corporations is almost negligible and its disclosure had not received any preference from the mentors of these corporations." Similarly**,** Deep and Narwal (2014) analyzed the relationship of IC with financial performance measures of Indian textile sector for a period of 10 years using Value added intellectual coefficient method. Recently, Dammak (2015) performed an empirical investigation to clarify the relationship between voluntary disclosure on the IC and firm valuation through content and factor analysis. Moreover, Bhatia and Agarwal (2015) conducted the study based on companies that went through IPO on BSE/NSE in the period 2011-12 using content analysis and by constructing an IC-related disclosure index. The purpose of Ghosh and Maji (2015) study was to investigate empirically the validity of the basic propositions of value added intellectual coefficient (VAIC) and extend VAIC models in Indian knowledge-based sector. Using panel data relating to 62 firms from two Indian knowledge-based sectors, for a period of 10 years the study indicates that the VAIC model cannot be rejected as a technique of measuring intellectual capital. According to a study by Charumathi and Ramesh (2015), authors' constructed a voluntary disclosure index with 81 financial and non-financial items. With the VDI, this study measures the voluntary disclosure levels for four financial years from 2009–2010 to 2012–2013 using the content analysis methodology.

Recently, Joshi et al., (2016) in their study examined the extent of IC disclosures and the determinants of such disclosures by the Malaysian companies by constructing disclosure index consisting of 20 items. The results revealed that the ICD level had increased as compared to the prior studies in Malaysia that suggests increased corporate awareness regarding ICD, though the disclosure level was lower as compared to the other advanced countries." The purpose of Maji and Goswami (2016), study is to examine the impact of intellectual capital (IC) on Indian traditional sector and compare the relative importance of IC on corporate performance of Indian knowledge-based sector (engineering sector) and traditional sector (steel sector). The results indicate that IC efficiency and physical capital efficiency are positively and significantly associated with the firm performance for both the sectors.

The foregoing discussion suggests that the literature on the determinants of ICD in the Indian-context is very limited and inconclusive. Thus, our study builds on the previous literature of ICD practice and overall ICD scenario in the Indian corporate sector, especially pharmaceutical firms. The scope of the study has been confined to 8 companies and market value added (MVA) approach was used on their annual reports for five years, namely, 2005 and 2009, respectively.

Research Methodology Used

This research study aims at mapping the current state of IC reporting done by the Indian and Australian corporate sectors. Accordingly, the sample-size of this study consists of 16 top IT companies from India (shown in **Exhibit-1**). These companies were primarily selected on the basis of their total income, as per the 2012 publication of "Dun and Bradstreet," a premier survey agency of the country. The electronic copies of the annual reports for these selected companies were obtained for two-years (2013-14 and 2014-15) from their respective corporate Websites. Similarly, this paper also analyzed the two-years annual reports of the 20 largest Australian IT companies (shown in **Exhibit-2),** selected on the basis of their market capitalization. These companies are the largest- listed IT & Software companies on the Australian Stock Exchange. In order to make a comparative study, "content analysis" was performed on the annual reports of companies drawn from both these countries.

In the past, several research studies have been conducted in various countries, using the "content analysis" of annual reports, to analyze the IC reporting practices. A list of IC related terms was searched within the annual reports, and yielding a significantly small number of instances in which IC reporting took place. Therefore, an attempt has been made here to use the same technique (i.e., content analysis) to analyze the extent of reporting of IC done by these IT companies. However, research in other countries revealed that reporting practice stays well behind on a global scale, despite the perceived importance by corporate managers.

IC Reporting Done by The It Companies: A Cross-Country Study

Annual reports are an ideal place to apply an IC framework because they allow us to compare IC positions and trends across different companies, industries and countries. They are an instrument for communicating issues comprehensively and concisely, and they are produced regularly, so they can be used to analyze management attitudes and policies across disclosing periods.

The main objective of the present study was to survey the prevailing practices of IC reporting in the annual reports made by the IT-sector corporate houses in India and Australia. The sample-size of this study accordingly consists of 16 companies from India and 20 from Australian IT- sector, respectively. Indian companies were selected on the basis of their total income as per Dun and Bradstreet. Australian Companies, however, were the largest listed companies on their stock exchanges. The annual reports of these selected companies were obtained directly from the Websites of these companies, and the annual reports for two years were examined.

The "content analysis" of the annual reports involves 'codification' of qualitative and quantitative information into pre-defined categories in order to derive patterns in the presentation and disclosing of information (Joshi et al., 2010). The coding process, in fact, involved reading the annual report of each company and coding the information according to some pre-defined categories of IC. Over the last decade, the content analysis has been used by several leading researchers to study the IC performance and reporting. Therefore, as part of the present study, "content analysis" has been used to analyze the extent of IC reporting made by the IT companies. By looking at the reporting of terminology within their annual reports, one can examine the extent to which Indian and Australian corporations publicly document the presence (or importance) of IC. In identifying companies disclosing IC, a list of related terminology was compiled. A survey and review of several IC books and articles was also conducted. The panel of researchers from the "World Congress on Intellectual Capital" finalized the list of IC items into a collection of 39 terms that encompassed much of the IC literature. The list used by Bontis was considered comprehensive for this type of research on knowledge-based information technology companies. The final list of IC terms is shown in **Table-2**. Each of these terms was "electronically" searched individually in the annual reports to find out the presence or absence of the said terms. By and large, most of the IC terms were reported only once in each annual report, and there was lack of consistency about the terms disclosed. However, results were tabulated on the basis of the number of companies disclosing these terms in their annual reports. Company-wise analysis, along with testing the degree of variance, has also been undertaken. The company-wise analysis has been shown in **Table-3**, and the variation in disclosing has been presented in **Table-4.**

Table-2: Intellectual Capital--39 Search Terms

Business Knowledge	Employee efficiency	Intellectual property
Company reputation	Employee skill	Intellectual resources
Competitive intelligence	Employee value	KM
Corporate learning	Knowledge assets	Expert networks
Corporate university	Expert teams	Knowledge management
Cultural diversity	Knowledge sharing	Human assets
Customer capital	Knowledge stock	Human capital
Customer knowledge	Management quality	Human value
Economic Value added	IC	Organizational culture
Employee expertise	Information systems	Organizational learning
Employee know-how	Relational capital	Intellectual assets
Employee knowledge	Intellectual capital	Structural capital
Employee productivity	Intellectual material	Superior knowledge

(Source: Bontis, Nick, "Intellectual Capital Reporting in Canadian Corporations," Journal of Human Resource Costing and Accounting, 2003, page 7).

IC Analysis of the Indian Companies Results

It may be noted at the outset that only 18 items, out of the total list of 39 IC-terms, were reported in the annual reports of the 16 Indian IT companies. Most of the IC-terms (viz., business knowledge, employee productivity, employee skill and value, knowledge assets, management quality, KM, human value, organizational learning, and intellectual assets) were reported only "once" in the annual reports, and there was utmost "lack of consistency," across-time, about the terms disclosed. Our findings are very much similar to the findings of other studies done in the past. Surprisingly, the most popular term reported in our study was "intellectual property rights" (IPR), which represents such intangibles as patents, brands valuations, and the outcomes of R&D investment. This is quite obvious due to the vital role played by the "intangible assets (or IC)" in the case of knowledge-intensive IT companies. However, this term has a very specific legal connotation from an accounting and legal perspectives. Therefore, the term "intellectual property" (IC term no. 27) had the maximum reporting done by all the 16 IT companies, followed by the reporting of the term "information systems" (IC term no. 23). This was not surprising due to the nature of knowledge-based IT companies under study.

Unfortunately, the term "intellectual capital (IC)," was specifically disclosing by just 2 out of the 16 companies, namely, Moser Baer India Limited, and Patni Computer System Limited. A closer examination of both these companies clearly revealed that the presence of "IC" term was generally used in the "management discussion & analysis (MD&A)" section of the annual reports. It is very strange, there is no evidence at all in any of the firms identified, that an actual IC statement/report was developed, or that any other IC metrics were being published. Moreover, our survey and subsequent analysis of the IC reporting practices suggests that reporting has been vaguely expressed in very "discursive," rather than "numerical" terms, and that little or no attempt has been made to translate the rhetoric into measures that enable performance of various forms of IC to be evaluated.

For instance, Moser Baer India Limited declared in its annual report, under the MD&A section as: "Quality of our human resources charts the success and growth potential of our business. The Company has managed to keep attrition rates well in control by imbibing a sense of ownership and pride, and strong HR initiatives geared to nurturing latent talent, and unlocking the power of IC. The Company continues to drive organization development and also build management resources for a multi-business enterprise." Recently, Moser Baer had stated in annual report as follows: "Your Company continuously benchmarks HR policies and practices with the best in industry and carries out necessary improvements to attract and retain best talent and build intellectual capital." Similarly, another IT company, Patni Computer Systems Limited makes a "casual" mention of its IC in its annual report: "The global sourcing market has matured from those days when India was considered to be a source of 'low-cost manpower'. Today, it has earned the distinction of being a 'preferred destination for intellectual capital' that accelerates the trend—globalization of services. Going ahead, Indian companies are bracing up for the challenge of providing end-to-end business domain-focused solutions, leveraging intellectual property (IP) in form of solution accelerators, frameworks and service delivery technologies."

The term "knowledge management (KM)" (IC term no. 31 & 29), which is supposed to occupy a place of prominence in the knowledge-based IT companies of India, was disclosed by a meager 6 companies. However, most of the terms relating to the employees (except employee productivity, skill, value), and customers could not find any worth-mentioning space in the annual reports of the selected companies. The most important and crucial constituents of IC—relational capital, structural capital and customer capital—did not figure even once in any of the annual reports of the companies under study.

Table-3: Company-wise Analysis of Intellectual Capital Terms, Count of Reporting

S. No.	Name of Company	No. of IC Terms Reported
1	Infosys Technologies Limited	13
2	Moser Baer India Limited	05
3	Patni Computer Systems Limited	03
4	Tata Consultancy Services Limited	05
5	Wipro Limited	01
6	HCL Infosystems Limited	01
7	MphasiS Limited	03
8	CMC Limited	02
9	Polaris Software Lab Limited	03
10	Siemens Information System Limited	02
11	Financial Technologies (India) Limited	03
12	I-Flex Solutions Limited	03
13	Satyam Computer Services Limited	01
14	Tech Mahindra Limited	01
15	HCL Technologies Limited	02
16	Larsen &Toubro Infotech Limited	06

(Source: Compiled by the author from the Annual Reports of Companies).

Table-3 very clearly highlights that Infosys Technologies Limited, a company acclaimed widely by the international community and the media too, had reported the maximum number (13) of IC-related items from the total list of 39 items. It is worth mentioning here that Infosys was the "first" Indian company to win the 'Most Admired Knowledge Enterprise in Asia' award in the year 2002. However, it is surprising to note that this company did not make any mention of term "IC" in its annual reports. Perhaps, Infosys is the only IT-company in India, which has been regularly disclosing its "Intangible Assets Score Sheet," as a measure of intangible assets (or IC). For example, the company in its annual report makes the following remarks: "We published models for valuing two of our most important intangible assets—human resources and the "Infosys" brand. This score sheet is broadly adopted from the intangible asset score sheet provided in the book titled, 'The New Organizational Wealth,' written by Dr. Karl-Erik Sveiby and published by Barrett-Koehler Publishers Inc., San Francisco. We believe such representation of intangible assets provides a tool to our investors for evaluating our market-worthiness."

Based on the "content analysis" of this study, Larsen & Toubro Infotech Limited disclosed the second-highest 6 out of 18 IC-terms, which were followed up by Tata Consultancy Services and Moser Baer India Limited, respectively, both with a disclosing score of 5 out of 18 IC-terms. However, we are surprised to note that Patni Computers Limited, MphasiS Limited, I-Flex Solutions Limited, Polaris Software Lab Limited and Financial Technologies (India) Limited, by far comprising the largest segment of the IT companies having 6 companies from the sample size of 16 companies, reported just 3 out of 18 IC-related terms in their annual reports for the period of study. Rest of the 7 companies, forming a big chunk of our study, disclosed in the range of just 1 to 2 terms, as for as the reporting of IC-terms are concerned. For example, CMC Limited, Siemens Information System Limited and HCL Technologies Limited reported just 2 items, while only 1 item was reported by Wipro Limited, HCL Infosystems Limited, Satyam Computer Services Limited, and Tech Mahindra Limited. It is also important to note that the IC items reporting have been shown at widely "scattered-places" in the annual reports, and there appears to be a "lack of consistency" over time regarding the terms disclosed. The "mean" reporting, as shown in Table-4**,** comes to be as low as 3.9 items. There is a variation of 3.12 items, on average, as suggested by the value of "standard deviation".

The "coefficient of variation" comes to be as high as 80%, which indicates a significant variation in item-wise reporting in the annual reports of the companies. However, there is no "specific" reporting of IC as a special part or content of the annual report, despite its very high relevance in the knowledge-intensive IT industries.

Table-4: **Variation in Item-wise Reporting**

No. of Companies / **Number of Items Covered**	**No. of Disclosing Companies**
0-3	7
3-6	6
6-9	1
9-12	0
12-15	1
Mean Reporting	3.9
Standard Deviation	3.12
Coefficient of Variation	80%

(Source: Compiled by the author from the Annual Reports of Companies).

Mr. Nandan Nilekani, the CEO, President and MD of Infosys Technologies remarked: "At Infosys, we are effectively transforming enterprise knowledge into wealth-creating ideas, products and solutions. We are building portfolios of intellectual capital (IC) and intangible assets, which will enable them to out-perform their competitors in the future. We consider KM as a powerful medium for creating sustainable networks of people across intra-organizational boundaries. It also provides a symbolism for aligning individual initiative and creativity with organizational growth." Thus, Infosys has been duly recognized for its organizational learning and for transforming enterprise knowledge into shareholder value. It is worth mentioning here that Infosys is regularly disclosing in its annual report details about the "Intangible Assets Score-Sheet," as developed by Dr. Seveiby, human resources accounting, brand valuation, etc.

Similarly, Mr. Sambuddha Deb, Chief Quality Officer, Wipro Technologies, observed: "Our knowledge management initiative continues to be one of the most strategic initiatives and our knowledge portal, "Knet," provides an effective and efficient means of capturing knowledge, both tacit and explicit across the organization, distilling it through a review process and making it available in a form which is ready to use. Our conscious and significant investment in the KM initiative is providing an important edge that the business needs." No doubt, comprehensive IC disclosing would not only help in retaining the competitive advantage in the long-run, when other firms start emulating such pioneering practices, but it would also prove as an added information available, which can also be used to measure the link between the performance, growth and stability of the firm with its IC.

IC Analysis of Australian Companies Result

For the purposes of having a comparative study, we have examined the annual reports of the top 20 Information Technology companies listed on the Australian Stock Exchange, and used the "content analysis" method. The list of 39 IC terms had already been shown earlier in Table-2. Each of these terms was "electronically" searched individually in the annual reports of Australian IT Companies to find out the presence or absence of the said terms. By and large, most IC terms were disclosed only once in each annual report, and there was lack of consistency about the terms disclosed. Finally, results were tabulated on the basis of the number of companies disclosing these terms in their annual reports. Company-wise analysis, along with testing the degree of variance, has also been undertaken. The content-wise analysis has been shown in Table-5, company-wise analysis in Table-6, and the variation in disclosing has been presented in Table-7. **Table-5** shows the item-wise reporting made by the Australian Companies in their annual reports.

Table-5: Reporting of Intellectual Capital Items by Australian Companies

Sr. No.	Item of Intellectual Capital	No of Australian Companies Reporting
1	Business Knowledge	2
2	Company reputation	9
3	Competitive intelligence	3
4	Corporate learning	2
5	Customer knowledge	1
6	Employee knowledge	1
7	Employee value	1
8	Knowledge sharing	1
9	Information systems	3
10	Intellectual capital	2
11	Intellectual property	16
12	Knowledge management	1
13	Human assets	1
14	Organizational culture	7

(Source: Compiled by the author from the Annual Reports of Companies).

Table-5 highlights that out of the list of 39 items only 14 items were found in the annual reports of the Australian IT companies. The term "intellectual property" has been disclosed by 16 companies, and it was the maximum reporting of any item by the companies under study. This was followed by the reporting of "company reputation" having been disclosed by 9 companies, and "organizational culture," which was disclosed by 7 companies. Unfortunately, the term "intellectual capital," the main theme term of this paper, was disclosed by just 2 companies. These companies include SMS Management and Technology Limited, and ASG Group Limited.

SMS Management and Technology Limited describe the importance of its IC in its annual report by stating as follows: "The Company continued to invest in developing its intellectual capital during the year. This included: Extension to our Knowledge Management portal 'Magellan' and Enhancement of our Customer Relationship Management System." Similarly, it further reports that "SMS invests heavily in the development of our intellectual capital and the growth of our staff through open and collaborative forums, coupled with industry best practice. Throughout 2008, SMS has made considerable inroads in the continued codification of its intellectual capital and knowledge into reusable tools, templates, methods and processes." Moreover, the ASG Group gives importance to its IC in its annual report by stating as follows: "Health is also the subject of a buildup of capability to assist clients who are increasingly being driven by efficiency and client coverage objectives. Again, ASG has spent considerable time building on its client relationships and its intellectual capital in this area. The client base recognizes the strategic focus that the Company is placing on this area."

The term "knowledge management," which must be an item of prime importance for reporting at least by knowledge based IT companies was disclosed only by SMS Management and Technology Limited. The term "business knowledge," which reflects the capability of any company was disclosed by two companies only. ASG Group Limited shares this information in its annual report which states: "Because this is done over the long term, our role as prime contractor, our business knowledge and our ability to offer a complete solution through our own resources and through access to our subcontractors, ASG adopts a strong incumbency position." It is widely accepted that knowledge sharing is the key to betterment, and the same has been disclosed by just one company, (viz, DWS Advanced Business Solutions Limited) as: "To stay ahead of our competitors, DWS has invested in a culture for capturing and sharing knowledge, enabling a cycle of continuous improvement. This has been done through: Showcasing innovative solutions at monthly meetings; Rewarding staff based on their involvement in encouraging best practice; and sharing information through the DWS internal employee portal."

Employees are the real reservoir of knowledge and the success or failure of any company depends to a large extent on the value of its employees. It is shocking to note that employee value has been disclosed by merely one company (viz., Melbourne IT Limited), which reports it as: "Talented and dedicated employees are key to Melbourne IT's continuing success and growth, and we recognize the importance of rewarding, developing and retaining our staff." Unfortunately, most of the terms relating to the employees and customers could not find any worth-mentioning place in the annual reports of the selected IT companies from Australia.

It is shocking to note that the three most important constituents of intellectual capital—relational capital, structural capital and customer capital—did not figure in any of the annual reports of the companies under study.

Table-6 highlights the company-wise analysis of the IC reporting made by the Australian IT corporations. It very clearly shows that DWS Advanced Business Solutions Limited has disclosed the maximum number of items (06) from the total list of 39 items. The reporting of 6 items out of 39 is very low and reflects that the company has not considered IC reporting as an important subject. This is followed up by the Technology One Limited, Melbourne IT Limited, ASG Group Limited, and ITX Group Limited with a reporting score of 5 items, and SMS Management and Technology Limited with reporting of 4 items. Reporting by the remaining IT companies from Australia were in the range of 1 to 3 items. Unfortunately, the two Australian corporations, namely, the ISS Group Limited and Dark Blue Sea Limited did not bother to disclose even a single item of IC in their annual reports.

Table-6: Company-wise Analysis of Intellectual Capital Reporting

S. No.	Name of the Company	No. of IC Terms Reported
1	ASG Group Limited	5
2	Bravura Solutions Limited	2
3	DWS Advance Business Solutions Limited	6
4	Dark Blue Sea Limited	0
5	GBST Holding Limited	2
6	Hansen Technologies Limited	1
7	ISS Group Limited	0
8	ITX Group Limited	5
9	Melbourne IT Limited	5
10	Objective Corporation Limited	1
11	Oakton Limited	3
12	Prophecy International Holdings Limited	2
13	QAMASTOR Limited	2
14	Reckon Limited	1
15	Rubik Financial Limited	1
16	Stratatel Limited	1
17	SMS Management & Technology Limited	4
18	Technology One Limited	5
19	UXC Limited	1
20	3Q Limited	1

(Source: Compiled by the author from the Annual Reports of Companies).

Table-7: Variation in Item-wise Reporting by Australian Companies

Disclosing Companies Number of Items Covered	No. of Reporting Companies
0	2
1	7
2	4
3	1
4	1
5	5
Mean Reporting	2.35
Standard Deviation	1.76
Coefficient of Variation	74.89%

(Source: Compiled by the author from the Annual Reports of Companies).

It is apparent from **Table-7,** the mean reporting score for the items disclosed by the companies comes to be as low as 2.35 items.

However, there is a variation of 1.76 items on average as suggested by the value of standard deviation. Also, the coefficient of variation comes to be as high as 74.89%, which indicates a significant variation in item-wise reporting in the annual reports of the companies. Unfortunately, there is no specific reporting pattern of IC as a special part or content of the annual report in spite of its high relevance in the knowledge intensive companies.

Conclusion and Recommendations

Leading IT companies, both from India and Australia, which were applying IC measures have found that it gives them better understanding of the drivers of value, and helps them in improving the management and growth of these vital assets. Unfortunately, IC reporting made by these firms in their annual reports, in both the countries, during the period of this study, is seen to be almost negligible and partial in tune with the European Union. Only 18 out of the 39 IC search terms of the total firms studied actually disclosed them. However, the reporting of IC was not at all uniform, and there was lack of specific evidence regarding the usage of the IC measurement, management techniques, and tools by these firms.

As part of the current study, we have examined the annual reports of the IT companies from Australia (20) and India (16), and applied the "content" analysis method. The findings of this study very clearly indicate that the level of IC reporting are found to be low, and they are disclosed in 'qualitative' rather than 'quantitative' form. The analysis of the reporting patterns of both the Indian and Australian companies, shows low-level (18 and14 items, respectively, out of 39 IC-search items) of IC reporting by the sample companies. Surprisingly, out of 39 IC search terms, more than half, were not reported by the Indian (21) and Australian (25) companies, respectively (see **Table-8**). Among the items not reported at all, 15 items were common to companies from both the countries. The findings also exhibit that IC reporting are not given a priority, both by the Indian and Australian IT-sectors. The average number of items reported by the sample companies is very low, which suggests that there is low awareness and a lack of interest in recording and reporting of IC variables by the companies. However, 2 Australian companies did not disclose even a single IC item in their annual reports.

Unfortunately, the term "intellectual capital (IC)," the main theme term of this paper, was specifically disclosed by just 2 out of the 16 companies (namely, Moser Baer India Limited, and Patni Computer System Limited). Very similar was the situation with respect to the Australian companies: just two companies (viz., SMS Management and Technology, and ASG Group) disclosed it. The mean reporting of items reported by the sample companies from both the countries is also very low (India 3.9, Australia 2.35), which suggests that there is low awareness and a lack of interest in disclosing of IC variables by the companies. The coefficient of variation comes to be as high as 75-80%, which indicates a significant variation in item-wise reporting in the annual reports of the companies from both countries.

Table-8: **Content-wise Analysis of IC Terms Reported by Indian & Australian Companies**

S. No.	Items of Intellectual Capital	No. of Companies Reporting in India	No. of Companies Reporting in Australia
1.	Business Knowledge	1	2
2.	Company reputation	Nil	9
3.	Competitive intelligence	Nil	3
4.	Corporate learning	Nil	2
5.	Corporate university	Nil	Nil
6.	Cultural diversity	Nil	Nil
7.	Customer capital	Nil	Nil
8.	Customer knowledge	Nil	1
9.	Economic Value added	3	Nil
10.	Employee expertise	Nil	Nil
11.	Employee know-how	Nil	Nil
12.	Employee knowledge	Nil	1
13.	Employee productivity	1	Nil
14.	Employee efficiency	Nil	Nil
15.	Employee skill	1	Nil
16	Employee value	1	1
17.	Knowledge assets	1	Nil
18	Expert teams	Nil	Nil
19.	Knowledge sharing	3	1
20.	Knowledge stock	Nil	Nil
21.	Management quality	1	Nil
22.	IC	Nil	Nil
23.	Information systems	8	3
24.	Relational capital	Nil	Nil
25.	Intellectual capital	2	2
26.	Intellectual material	Nil	Nil
27.	Intellectual property	15	16
28.	Intellectual resources	Nil	Nil
29.	KM	1	Nil
30.	Expert networks	Nil	Nil
31.	Knowledge management	5	1
32.	Human assets	Nil	1
33.	Human capital	6	Nil
34.	Human value	1	Nil
35.	Organizational culture	2	7
36.	Organizational learning	1	Nil
37.	Intellectual assets	1	Nil
38.	Structural capital	Nil	Nil
39.	Superior knowledge	Nil	Nil

(Source: Compiled by the author from the Annual Reports of Companies).

A large segment of the IT companies, both from India and Australia, have not even disclosed some of the principal "IC" terms, such as, intellectual capital, knowledge management, and employee skills and quality. In addition to this, the reporting practices for IC items by these companies were not consistent at all, and they lacked an appropriate measurement approach. Unfortunately, there is an absence of a well-defined guideline for the IC reporting in the annual reports, both from the national or international accounting bodies, and local professional accounting associations. Accordingly, both the Australian and Indian companies are lagging behind in the reporting of IC in their annual reports.

However, the average number of items disclosed by the Indian and Australian IT companies is very low, which suggests that there is neither awareness nor any interest to record and report IC variables by these companies. Even the few items which were just reported were expressed in "discursive" rather than in "numerical" terms. Moreover, it has also been found that there exists no clear-cut pattern or system of IC reporting in the annual reports. The reporting was not uniform and no evidence of its well-defined measurement basis (except for the Infosys "Intangible Score-Card") was found in the annual reports. It is very surprising to note that the IT companies, which are most dominating group in the knowledge sector, have failed to disclose IC in their annual reports. Undoubtedly, companies from both the countries are far lagging behind in the field of measurement, management and reporting of IC, as compared to the Scandinavian and/or European companies. Thus, there is an urgent need to highlight the importance of IC reporting to these knowledge-based IT firms and encourage them to provide "voluntary" IC reporting. The low-level of reporting of IC by the IT companies, whose very basis of existence is knowledge and innovation, may be partly because of the fact that reporting of IC are done by companies purely on a "voluntary" basis.

Not surprisingly, the findings of this study are very much similar to various other studies conducted by researchers in different countries on different corporate groups (viz., Abeysekera and Guthrie, 2005; Brennan, 2001; Bontis, 2003 and Pablos, 2003) and the studies on IT-sector (Joshi and Ubha, 2009; Kamath, 2008), which also signify very low-level of IC reporting. Indeed, companies in the European Union are way ahead of their counterparts elsewhere when it comes to the measurement, reporting and management of their IC." While there is some evidence that Australian enterprises are engaging in the process of identifying their stock of IC, overall Australian companies do not compare favorably with their overseas counterparts in their ability to manage, develop, support, measure and report their IC". Similarly, Bontis concludes: "There is no evidence at all that IC reporting has garnered any traction for the Canadian corporations. Only a small percentage of Canadian companies (68 out of 10,000) even used the terms in their annual reports. Obviously, using the language of IC is an important antecedent to developing IC statements, but Canada seems to be significantly behind its Scandinavian counterparts."

A brief summary of the present research study reveals the following aspects:

- The "key" components of IC are poorly understood, inadequately identified, inefficiently managed, and are not reported within a consistent framework.
- The extent of reporting is generally 'minimum' but the types of IC that tend to be most often reported include human resources, technology and intellectual property rights, and organizational and workplace structure.
- A review of IT industries from India and Australia, as a part of this study suggests that no individual country-specific IT industry is significantly ahead of any other in its IC reporting practices.
- By and large, most company representatives believe that the management of IC is an important factor in determining future company success and facing competitiveness. However, few executives are able to identify initiatives within their organization that are designed to assist in managing IC.
- IC reporting made by the Indian and Australian firms are very "negligible, partial, and descriptive, lack of consistency in disclosing etc.," in sharp contrast with the developed countries. A very small number of the total firms studied actually reported IC-related terms, but reporting was not uniform, and there is lack of evidence regarding the usage of the measurement, management techniques, and tools by these firms.

So far, published guidelines represent good initiatives undertaken by the academics based on the experience of some pioneer firms in developed countries that build the IC report. They provide practical guidelines on how to measure and report IC. However, firms are not enforced to follow these guidelines, and therefore, they just offer an orientation. The development of a set of homogeneous norms, principles, indicators and structure is a high priority in the IC report agenda. The following recommendations are made

- Even though, IC has a very strong impact on the drivers of future earnings, but unfortunately, it is largely ignored in the financial reporting. We strongly recommend that companies must create a culture that emphasizes the importance of IC in achieving business advantage.
- Those corporations that are concerned with their relationship with the capital markets should develop 'strategic' and 'tactical' initiatives that provide for 'voluntary' IC reporting.
- The IC reports may initially be used for "internal" management purposes but an "external" stakeholder focus report should be the long-term ultimate goal.

- The professional accounting bodies, at the global level, should join hands to develop an internationally accepted valuation system, and standardized and harmonized approaches for reporting of IC.
- The regulatory bodies should establish "key" parameters for the reporting of IC in a similar fashion, as have been defined in the EU in order to make a beginning in the field.
- To adopt "voluntary" IC reporting practices, especially for all IT firms in the knowledge-sector, where competitiveness of the firms are determined by their intangible assets.

Indeed, the whole field of IC reporting is still relatively 'new' and slowly evolving. Therefore, accountants, business managers, and policy makers have all to grapple with its concepts, philosophy, and detailed methodologies for IC applications. Real-life corporate experience suggests that rushing into the details of IC measurement before understanding the fundamentals is going to prove counter-productive. Now, we feel the time is ripe for international professional bodies to develop that understanding and to develop new measures that will guide them more clearly to a prosperous future. Moreover, the professional accounting bodies at the global level should also join hands to develop an internationally accepted valuation system, and standardized and harmonized approaches for disclosing of IC. We strongly recommend that companies must create a culture that emphasizes the importance of IC in achieving business advantage.

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Exhibit-1: Indian IT Companies Selected for Study

S. No.	Name of Indian IT Company
1	Infosys Technologies Limited
2	Moser Baer India Limited
3	Patni Computer Systems Limited
4	Tata Consultancy Services Limited
5	Wipro Limited
6	HCL Infosystems Limited
7	Mphasis Limited
8	CMC Limited
9	Polaris Software Lab Limited
10	Siemens Information System Limited
11	Financial Technologies (India) Limited
12	I-Flex Solutions Limited
13	Satyam Computer Services Limited
14	Tech Mahindra Limited
15	HCL Technologies Limited
16	Larsen &Toubro Infotech Limited

Exhibit-2: Australian IT Companies Selected for Study

S. No.	Name of Australian IT Company
1	ASG Group Limited
2	Bravura Solutions Limited
3	DWS Advance Business Solutions Limited
4	Dark Blue Sea Limited
5	GBST Holding Limited
6	Hansen Technologies Limited
7	ISS Group Limited
8	ITX Group Limited
9	Melbourne IT Limited
10	Objective Corporation Limited
11	Oakton Limited
12	Prophecy International Holdings Limited
13	QAMASTOR Limited
14	Reckon Limited
15	Rubik Financial Limited
16	Stratatel Limited
17	SMS Management & Technology Limited
18	Technology One Limited
19	UXC Limited
20	3Q Holdings Limited