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DISCLOSURE OF INTELLECTUAL CAPITAL IN ANNUAL REPORTS: AN EMPIRICAL STUDY OF THE LISTED COMPANIES IN BANGLADESH

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ABSTRACT: *As the world economy is experiencing a transition from industrial to knowledge economy, intellectual capital (IC) has become a prominent feature of business transactions and discourse. Interest in IC and IC disclosure is rising in developed and developing countries. At present, Intellectual Capital Disclosure (ICD) is done voluntarily by very few leading corporations all around the world. Omission of ICD may adversely influence the quality of decisions made by users of accounting information or lead to material misstatements. Hence, rising importance of IC has necessitated insightful studies. With this background in mind, the study of 25 Bangladeshi knowledge based companies listed in Dhaka Stock Exchange (DSE) from Information Technology considered to be highly knowledge intensive has been undertaken in order to find out the disclosure level of recording and reporting of intellectual capital through content analysis of their corporate annual reports. It is evident from the study that level of intellectual capital reporting in the Bangladeshi companies is negligible and intellectual capital reporting has not received any preference or priority for the mentors of these corporations. On the basis the findings, the study recommends national and international accounting regulatory bodies to develop specific and uniform standard on identifying, measuring and reporting IC.*

KEYWORDS: intellectual capital, tangible assets, knowledge based economy, information technology

Introduction

Intellectual Capital (IC) is a term commonly used in different fields of academic and managerial activity. Roslender and Fincham (2011) note that, though the term 'IC' is relatively new, the substance of the debate goes back to at least the 1960s and 1970s when many of the same topics were debated under the headings of 'Human Asset Accounting' or 'Human Resource Accounting'. The term IC was first used in the 1960s, but became pronounced in the 1990s and as a result became an accounting management practitioner-created concept. Since then, organizations considered importantly the recognition, measurement and reporting of IC especially in corporate annual reports.

The concept of IC measurement, management and disclosure is still relatively new. Accountants, business managers and policy makers have still to grapple with its concepts and detailed application. Definition of Intellectual capital varies substantially. It can be defined as, the intellectual or knowledge based resources of an organization. Intellectual capital, in its simplest sense, refers to the contributions of resources that have no basis on sources of tangible elements or characteristics. Nevertheless, the definition given by Itami (1987)**,** the pioneer of works on intellectual capital, is widely recognized in the academic arena. Itami (1987) defined intellectual capital as intangible assets comprising of technology, brand name, reputation, customer information and corporate culture that are invaluable to a firm's competitive power. There seems to be an inherent relationship between intellectual capital in a firm and the knowledge of workers. Whereas Bontis (1999) defined intellectual capital as the knowledge of both individual worker and the organization. According to Stewart (2002) "It has become standard to say that a corporations' IC is the sum of its human capital (talent), structural capital (intellectual property, methodologies, software, documents, and other knowledge artifacts), and customer capital (client relationships)." One of the most comprehensive definitions of IC is offered by the Chartered Institute of Management Accountants is "The possession of knowledge and experience, professional knowledge and skill, good relationships, and technological capacities, which when applied will give organizations competitive advantage." Strassmann (1999) defined Intellectual capital in more specific way "the net difference between the market value of a corporation and its tangible assets."

The focus on IC has increased due to the emergence of intangible assets as a key driver of value within knowledge based corporations, which is in turn a reflection of major macroeconomic economic shifts in most economies (McPhail K, 2009). World business is expanding tremendously since industrial revolution. Traditionally tangible asset was viewed as the key to success of a company. The future drivers of any economy will be people and their knowledge reservoir, instead of capital, land or equipment. A knowledge-intensive corporation leverages their know-how, innovation and reputation to achieve success in the marketplace (Jose et al., 2010). Edvinsson and Malone (1997) argue that the worth of a company lies not in bricks and mortar, but in intangible kind of asset, that is IC, which is hidden behind the company's book values. Hence at present effective management of intangibles or intellectual capital rather than tangible or financial assets are considered to be the drivers for long-term value creation in modern competitive environment and potential for creating competitive advantage. Market participants, practitioners and regulators put importance on the need for greater investigation and understanding of IC disclosure (or reporting) as the usefulness of financial information in explaining firm profitability continues to deteriorate. Bukh (2005), for example, asserts that traditional disclosure mechanisms are not able to cope adequately with the disclosure requirements of new economy firms. He observed an increasing dissatisfaction with traditional financial disclosure and its ability to convey to investors the wealth-creation potential of firms. Accordingly, corporate intellectual capital reporting is getting an increasing academic attention on in last two decades worldwide. Some knowledge-based resources, such as patents, trademarks are incorporated in financial reports through mandatory accounting regulations, but traditional financial reporting systems cannot fully evaluate and recognize many intangible resources because there is no provision of intellectual capital reporting or (ICR) within the intangible assets in financial reporting system. In fact, there are no far-reaching regulations and guidelines requiring companies to adhere to in disclosing IC (Bruggen et. al., 2009). Though it is evident that IC has become a key resource of value creation in today's knowledge economy, the International Financial Reporting Standards (IFRS) do not specifically and expressly require companies to report on IC (Kansal and Singh, 2011). Though interest and demand for IC information are growing, 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. Unlike developed economies (or knowledge based economies) and moderately developed economies, studies examining the various aspects of intellectual capital reporting in the context of less developed and emerging economies are very sparse. As competition among firms in developing countries is increasing due to rapid globalization, lower transactions costs, and more freely available capital, IC study of firms has become increasingly important. The Bangladesh economy has undergone significant changes in previous decades. The need & demand of people led to an unprecedented change in the economy and a complete transformation of the priority sectors for economic development has been evidenced. A majority of the large organizations are depending more upon the use of knowledge than their physical resources. The meaning of this shift for Bangladesh is that a more efficient and responsible management of intellectual capital has become necessary. Therefore, intellectual capital issues such as disclosures and measurement is now gaining prominence in the contemporary research.

LITERATURE REVIEW

With entrance into the knowledge society, the business landscape has changed tremendously in the twenty-first century. The concept of the "knowledge economy" has motivated much recent research (by academics, professional accounting bodies and various European Union (EU) and national government and international agencies), into why information relating to investments in intangible assets (e.g. IC), might be important in terms of better assessing and managing the sources of value generation and the sustainability and risks associated with corporate strategies. Accounting regulation (for example, in the form of IAS 38: Intangible Assets) is conservative and restrictive in terms of recognition and measurement of intangibles (Gowthorpe, 2009). The friction between ICD and accounting regulation signals a need for a "revolution in accounting regulations" in order to ensure the fair presentation of the economic state of the firm (Vergauwen and Alem, 2005). Over the years, different approaches have been developed to measure and report IC. Edvinsson and Sulliban, (1996) opined IC is combinations of three components, which are human capital (HC) - individual competence: e.g. Knowledge Competence Skills, Individual & Collective Experiences, Training, Communities of Practice..., Structural Capital (SC) - Internal Structure e.g. Business processes Manuals/ policies Information systems, Research findings Trademarks, Brands and relational capital (RC) – external structure e.g. Customer relations Repeat business, Customer Loyalty, Relations with vendors Investor trust and feedback...

These three IC categories can be perceived not to be disclosed proportionately in the corporate annual reports as there are no specific criteria for such disclosures especially in the context of Bangladesh. In that regard accounting regulations/ standards regulate the reporting of information in corporate annual reports to the stakeholders. Prior evidence indicates that more disclosure can help solve problems of asymmetry in information between company insiders and investors (Leuz and Verecchia, 2000). Additional disclosure can increase trading by enhancing firms' visibility and investors are more likely to invest in firms they are most familiar with (Diamond and Verrecchia, 1991). Moreover, investors are likely to price protect themselves against potential losses from trading with well-informed market participants (Vergauwen PGMC and Alem 2005). As a result, a firm's cost of capital increases due to insufficient disclosure (Leuz and Verecchia, 2000). Hence, there are enough

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motivators as to why should firms disclose IC in their annual Reports. Companies can achieve competitive advantage through efficient and effective management of IC.

The main IC disclosure studies were typically cross- sectional and country specific, there are some longitudinal studies also. Examples of cross- sectional and country-specific studies include in Australia e.g. (Guthrie and Petty, 2000; Sujan and Abeysekera, 2007), Ireland (Brennan, 2001), Italy (e.g. Bozzolan *et al., 2003*), Malaysia (Goh and Lim, 2004), China (Yi and Davey, 2010), UK (e.g. Williams, 2001), and Canada (Bontis,2003). Relatively very few longitudinal studies have been reported (e.g. Vandemaele and Vergauwen, 2005). Moreover, some studies are found focusing on the specific aspects of IC disclosure, such as human capital disclosure (e.g. Subbarao and Zeghal, 1997), while some others on international comparative studies (e.g. Bozzolan et al., 2006).

Studies have also been conducted to explore IC related issues from the firm's perspective. Chaminade and Roberts (2003) investigated the implementation of IC disclosure systems in Norway and Spain. Zigan and Macfarlane (2007) employed case studies to explore the relevance and awareness of IC in hospitals. Studies of Cerbioni and Parbonetti (2007) looked at relationship between corporate governance and IC disclosure. Studies on the basis of analyst presentation reports of listed Spanish corporations conducted by García-Meca *et al. (2005)* found significant association between IC disclosure and size and type of disclosure meeting but not ownership diffusion, international listing status, industry type and profitability. Guthrie and Petty's (2000) analysis of IC disclosure practices suggests that disclosure has been expressed in discursive rather than numerical terms.

Empirically, many of the IC studies has been conducted on the basis of evidence from the developed world and concentrated on organizations in the Nordic areas and English speaking countries, such as UK, USA, Canada and Australia (Kamath GB, 2008). Among various media of disclosure, such as company websites, presentations to analysts and IPO prospectuses, annual report is the most popular basis for IC studies (Abhayawansa, 2007). Firms with different background and in different countries do not report intangibles in the same way. This establishes the view that IC reporting is not uniform throughout the world.
Bangladesh is a newly industrialized or emerging economy in Asia. Globalization, increased use of information technology and appearance of new media speeding up Bangladesh towards knowledge based economy. The concept of IC is absolutely a new concept in Bangladesh. As such there is no legislative guideline for IC disclosure in Bangladesh including the Companies Act 1994.Bangladesh Accounting Standards 1 (BAS1) encourages the listed companies to make the disclosures of non-financial activities. Therefore, intellectual capital disclosure in Bangladesh is still voluntary. Management makes voluntary disclosure as long as there is a marginal benefit to be gained from reducing the information asymmetry in the market. Although some companies in Bangladesh make such disclosure, these are not in an organized format. In the Bangladeshi context, there has been very limited number of IC disclosure studies, as compared to its European counterparts. However, a few studies are available on IC disclosure in Bangladesh. The studies suggest that IC disclosure in Bangladesh is very limited and inconclusive. There are some legal provisions on intellectual property in the context of Bangladesh. The earliest IP legislation was the Patents, Design and Trade Marks Act 1883. It was repealed following the Patents and Design Act 1911 and the

Trade Marks Act 1940. However, there is no legislative guideline in regard to copyright in Bangladesh. Stock exchange listing requirement also does not require the companies to make IC disclosure.

Objectives of the study

The objectives of the study are:

i. To find out intellectual capital disclosure level in annual reports of selected companies.

ii. To focus on importance of intangible assets in companies especially knowledge based companies.

iii. To find out the reasons behind disclosure/non-disclosure.

iv. To give solution to improve the conditions.

Limitations of the study

The limitations faced when preparing this paper are as follows:

i. Not including an Intellectual capital model that links these strategic resources with the company's overall vision, mission and strategy in the one hand and with the organizational results on the other.

ii. Not stating specific objectives for each Intellectual capital indicator to get a benchmark.

iii. Absence of intellectual capital terms directly.

iv. No clear mentioning of intellectual capital indicators

v. Inadequate knowledge about the topic.

METHODOLOGY

This is an exploratory study; there are little empirical studies on IC disclosure in the context of developing countries and more specifically Bangladesh. The study draws on selected companies listed the Dhaka Stock Exchange (DSE) as at the end of the year 2017. From the listed firms as at that date, 25 companies from 05 different industrial sector (IT, Bank, Insurance, Power and Pharmaceuticals) were purposively selected. The reason for focusing the study on listed companies is that these companies tend to disclose more information than unlisted companies and were assumed to contain issues of IC especially from the perspective that it could help them gain competitive advantage. This paper employs that voluntary intellectual capital disclosures were positively related to company size. Size of company determines the extent of voluntary disclosures. Moreover, industry type is a significant factor along with the size of company. Annual reports are the most reliable source of information

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for users and efficient market theory proved that current market price reflects all publicly available information including that from annual reports.

The annual reports of the firms were collected from their websites and analyzed using content analysis method. Content analysis is widely used in research to investigate the frequency and type of IC reporting. Content analysis involves codifying the text of writing (i.e. qualitative and quantitative information) into various predefined groups/classes or categories based on selected criteria in order to derive patterns in the presentation and reporting of information (Guthrie et al. 2004). There are several units of content analysis of ICD; word, sentence and paragraph counts. Gray et al., argue that words have the advantage of lending themselves to more exclusive analysis even though sentences are preferred in written communication if the task is to infer meaning. Moreover, the use of words and/or sentences seems to be preferred by most researchers. To shortlist the terms for finding corporate disclosures of intellectual capital, a survey of literature was performed. The panel of researchers from the World Congress on Intellectual capital finalized the list of intellectual capital items into a collection of 39 terms that encompassed much of the IC literature (Bontis, 2003). The list used by Bontis was considered comprehensive for this type of research on knowledge based companies. These intellectual capital terms are listed in the Appendix 1. The IC related terms was searched within the annual reports including word count and line counts.

Analysis and Findings of the study

Intellectual capital terms were found using content analysis; the items reported and their line counts are presented in Table 1.

Table 1: Content wise analysis of Disclosure of Intellectual capital terms:

S N	Items of Intellectual Capital	No. of Corporations Disclosing	Number of Lines Disclosed
1	Business Knowledge	Nil	0
2	Corporations Reputation	Nil	0
3	Competitive intelligence	Nil	0
4	Corporate Learning	Nil	0
5	Corporate University	Nil	0
6	Cultural University	1	3
7	Customer Capital	Nil	0
8	Customer Knowledge	Nil	0
9	Economic Value Added	9	42
10	Employee Expertise	Nil	0
11	Employee Know-how	Nil	0
12	Employee knowledge	1	1
13	Employee Productivity	3	5
14	Employee Efficiency	1	1

15	Employee Skill	2	2
16	Employee Value	1	2
17	Knowledge Assets	Nil	0
18	Expert Teams	Nil	0
19	Knowledge Sharing	6	6
20	Knowledge Stock	Nil	0
21	Management Quality	1	2
22	IC	Nil	0
23	Information Systems	10	27
24	Relational Capital	Nil	0
25	Intellectual Capital	2	5
26	Intellectual Material	Nil	0
27	Intellectual Property	1	2
28	Intellectual Resources	Nil	0
29	KM	Nil	0
30	Expert Networks	Nil	0
31	Knowledge Management	1	1
32	Human Assets	1	1
33	Human Capital	7	93
34	Human Value	Nil	0
35	Organizational Culture	4	6
36	Organizational Learning	Nil	0
37	Intellectual Assets	Nil	0
38	Structural Capital	Nil	0
39	Superior Knowledge	Nil	0

Table 1 highlights that out of the list of 39 items only 16 items (41.41%) were found in the annual reports of the selected companies. By analyzing annual reports, it is seen that most of the IC items (viz. Employee knowledge, Employee efficiency, KM, Human assets, Knowledge management) were disclosed only "once" in the annual reports. The term Information Systems was covered by 10 firms (40%) and it is maximum followed by disclosure of IC term Economic Value added by 9 firms (36%). the term "intellectual capital (IC)," was specifically disclosed by just 2 out of the 25 corporations, namely, BRAC Bank limited & Green Delta Insurance Company Limited. BRAC Bank limited mentioned "The intellectual capital of our employees has been collectively the most important asset for our firm" in the annual report. It also mentioned that to develop intellectual capital (IC) company has focus on work environment and a culture, collaboration, sharing and teamwork, development of human resources. Green Delta Insurance Company Limited recognizes in the annual report that human resources and our intellectual capital differentiate the company from the others. So it invests in enriching the quality of our human resources. The term "knowledge management (KM)", which is supposed to occupy a place of prominence in the knowledge-based companies, was not disclosed by any company. However, the terms relating to the employees i.e., Employee expertise, Employee know-how could not find any deserving place in the annual reports of the selected corporations. The most important constituents of

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IC—relational capital, structural capital and customer capital—did not figure even once in any of the annual reports of the corporations under study.

Table 2: Analysis of Intellectual Capital Disclosure of Different Companies

Company	No. of items disclosed	Number of Lines Disclosed
Bank Asia Limited	8	44
BRAC Bank Limited	6	33
Eastern Bank Limited	7	22
Mercantile Bank Limited	6	20
Prime Bank Limited	4	24
ACI Limited	3	4
Renata limited	1	3
Beximco Pharmaceuticals Limited	0	0
Square Pharmaceuticals Limited	0	0
Marico Limited	3	9
Prime Islami Life Insurance Limited	0	0
Green Delta Insurance Company	8	27
NITOL Insurance	0	0
Padma Life Insurance Company Limited	0	0
Delta Life Insurance Co. Limited	0	0
Aamra Networks Limited	0	0
Aamra Technologies Limited	0	0
Daffodil Computers	0	0
Intech Limited	0	0
IT Consultants Ltd.	0	0
DESCO	0	0
Baraka Power Limited	0	0
Linde Bangladesh Limited	0	0
United Power & Distribution Limited	2	8
Summit Power Limited	3	7

Table 2 highlights the company wise analysis of the intellectual capital disclosure. Based on the “content analysis” of this study, Bank Asia Limited & Green Delta Insurance Company disclosed maximum number (8) of IC related items out of 39 items in the list. But, it is surprising to note that none of these corporations did not make any mention of term “IC” in their annual reports. Eastern Bank Limited disclosed second highest 7 items, 18% of the list. Only 11 companies out of 25 (44%) mentioned IC related items in their annual reports. The low disclosure of items of intellectual capital reflects that the company has not considered intellectual capital disclosure as an important disclosure subject.

Table 3: Industry-wise Analysis of Intellectual Capital Disclosure

Name of Industry	Number of Lines Disclosed
Banking	143
Insurance	25
Pharmaceuticals	16
Power & Fuel	15
IT	0

Table 3 shows that banking industry disclosed IC related items for maximum times. Though IT sector is considered to be highly knowledge based industry, companies selected from IT sector did not disclose any IC items for a single time. Moreover, the items disclosed were found very low because there is no specific reporting pattern of intellectual capital as a special part or content of the annual report in spite of its high relevance in the knowledge intensive companies.

CONCLUSION

This study sought to examine the level of IC disclosure of listed companies via content analysis of their corporate annual reports. The analysis of the reporting patterns shows very low level of IC recording and reporting by the sample companies. This brief review of the measurement and disclosure of IC terms highlights the case for “re-engineering” the traditional accounting and management disclosure processes (Daniel 2004). The findings of this research exhibit that intellectual capital disclosures have not received priority in annual report. Only a few number of the total firms studied actually reported IC-related terms. Companies should voluntarily increase IC disclosure, in terms of quantity and quality, in corporate annual report. In that regard management should ensure consistency in ICD practices by instituting mechanisms to ensure the provision of relevant and reliable IC information. Stakeholders are also encouraged to consider IC information in decision making since it will enable them to make good decisions with regards to their dealings with companies. A review of industry clusters within the study suggests that no individual industry is significantly ahead of any other in its IC disclosure practices. Moreover, the disclosure of IC was not at all uniform, and there is lack of evidence regarding the usage of the measurement, management techniques and tools by these firms. The low disclosure by the sample companies suggests that there is low awareness, lack of interest, negligence in recording and reporting of intellectual capital variables by the companies. The reporting practices for intellectual capital items were not consistent and lacked an appropriate measurement approach. It has also been found that there is a general absence of well defined guidelines for the intellectual capital disclosure in the annual reports from the national or international accounting bodies and Bangladeshi professional accounting associations. Accordingly, Bangladeshi companies are lagging behind in the reporting and disclosure of intellectual capital in their annual reports. If efforts are not made to develop a "formalized" intellectual capital disclosure framework then, for many public and private sector organizations, the management's disclosure of information in the financial statements will become increasingly irrelevant as a decision-making tool (Cuganesan *et al.* 2006). Steps should be taken to harmonize IC disclosure practices throughout the world through accounting practices. Efforts by accounting regulatory bodies should be intensified to develop specific standards. More incentives and reforms in financial reporting standards are required to promote disclosure of intellectual capital. A similar study could also be conducted to examine IC disclosure by unlisted companies and state owned enterprises. This current study sought to find out extent and level of disclosure of IC in corporate annual reports. Further research could be conducted to ascertain the quality of the disclosed IC and the willingness of management to make such disclosures in spite of its being primarily voluntary. The study focused on one-year corporate annual report. Future research could extend the time period of study in order to observe the trend of IC disclosure over a longer period.

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Appendix:

Intellectual capital search items finalized by The panel of researchers from *the World Congress on Intellectual capital* (source: Bontis, Nick, "Intellectual Capital Disclosure in Canadian Corporations," Journal of Human Resource Costing and Accounting, 2003, page 7)

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