An empirical investigation and users' perceptions on intellectual capital reporting in banks

Evidence from Bangladesh

Md Habib-Uz-Zaman Khan
Department of Business Administration, Faculty of Business and Economics, East West University, Dhaka, Bangladesh, and
Md Mohobbot Ali
Department of Accounting and Information Systems, Faculty of Business Studies, University of Dhaka, Dhaka, Bangladesh

Abstract

Purpose – The purpose of this paper is to report the findings of a study of intellectual capital (IC) reporting by private commercial banks in the developing economy of Bangladesh, together with the perceptions of a range of stakeholders' with respect to such disclosures.

Design/methodology/approach – The paper was informed by the results of a study carried out in relation to Bangladeshi banks. Initially, the annual reports of 20 selected banking institutions listed on the Dhaka Stock Exchange were subjected to a content analysis exercise. A questionnaire survey was subsequently conducted to explore stakeholders' perceptions about the practice of IC disclosure within this sector.

Findings – The findings in the paper indicate that the managements of Bangladeshi commercial banks are not currently enthusiastic about the necessity for such voluntary disclosure activity. The key focus for IC reporting is on human capital elements. Stakeholders' are in favour of such reporting across a wider range of IC items than is currently disclosed.

Research limitations/implications – The results of these exploratory studies can be used by researchers to explore further the different types of IC reporting initiatives pursued across a wider spectrum of industries and any differences in users perceptions by industry, as well as over time.

Originality/value – The paper contributes to the IC literature by presenting empirical evidence on IC disclosures and users' perceptions about such practices in the context of the Bangladeshi banking sector.

Keywords Intellectual capital, Commercial banks, Bangladesh

Paper type Research paper

1. Introduction

With the rise of rapid technological change, innovation and knowledge led organizational strategies, the bases for competition experienced by firms have shifted from traditional physical and financial resources to intangibles resources. There has been a growing realization among both academics and practitioners that the firm's products and commodities alone are insufficient for explaining its success in today's competitive market situation. Skilled employees, sound infrastructures, networking systems, information systems, innovativeness, brand name, trademarks and knowledge bases, sometimes termed intellectual assets, now bring considerable

Journal of Human Resource Costing & Accounting
Vol. 14 No. 1, 2010
pp. 48-69

1401-338X
DOI 10.1108/14013381011039799

competitive advantages for firms operating within the knowledge driven economy. Firms' intangibles properties (typically displayed in the form of skilled people, processes, competencies and knowledge) provide the core foundations of organizations' current and prospective wealth. As a result, these intellectual properties or intellectual capital (IC) have become a growing research interest in recent years. Researchers (Marr and Schiuma, 2001; Mouritsen, 1998) have argued that existing strategies pursued by firms should not only be confined in positioning the firm with reference to its competitors but should also be tailored to the IC of entity. Other IC researchers (Brennan, 2001; Hansson, 1997) have observed that the drivers of value creation in modern competitive environments lie in a firm's intellectual rather than its physical and financial capital. Further research studies (Alwert *et al.*, 2004; Lev, 1999; Garcia-Ayuso, 2002) have documented that tangible assets commonly account for 15-25 per cent of companies' value among knowledge intensive firms, with the remaining 75-85 percent being intangible assets and resources. Furthermore, it has been claimed that most first-world countries have experienced a shift in their source of gross domestic product (GDP) away from the traditional commodities and manufacturing-based sectors, the emphasis now being on a broader concept of economic value creation which encompasses service items and intangible-based output (Petty and Guthrie, 2000; Tissen *et al.*, 2000).

A review of the published IC literature revealed that, to date, research on IC and IC reporting in corporate annual reports has been conducted in variety of international settings, and in both developed and developing countries (see Roos *et al.*, 1997; Edvinsson and Malone, 1997; Guthrie and Petty, 2000; Bontis, 2003, 1999; Bornemann, 1999; Stewart, 1997; Bassi and van Buren, 1999; Pablos, 2005; Abeysekera and Guthrie, 2005; Ali *et al.*, 2008 for a detailed review). The existing IC literature in the context of banking sector is limited, however, and particularly in respect of IC reporting viewed from a stakeholders' perspective. Bangladeshi studies were even more limited, mainly concerned with investigating the extent of corporate social responsibility (CSR) (Belal, 1997; Imam, 2000; Khan *et al.*, 2009), while only one study examined IC reporting practice, again with inconclusive results (Ali *et al.*, 2008); this latter study does not refer to the Bangladeshi banking industry. Thus, the present study seeks to add knowledge to the IC literature in the course of providing further empirical evidence on IC disclosures along with users' perceptions in a developing country's financial institutions context.

The objectives of the study reported below are twofold. Initially, the research set out to understand of how Bangladeshi banking companies have responded to the possibility of IC reporting. In other words, the study is an attempt to assess the extent to which Bangladeshi banking companies' voluntarily report components of IC in the annual reports. Second, the research captures users' perceptions of such disclosures. Specifically, in the paper we address the answers to the following *RQ*s:

RQ1. What is the extent of IC reporting in commercial banks in Bangladesh?

RQ2. Which components of IC are frequently being reported in the banks' annual reports?

RQ3. What are users' opinions with regards to Bangladeshi banks' IC reporting initiatives?

Choosing the country Bangladesh and its banks as the research site for IC reporting was motivated by a number of factors. In the first place, as there are very few significant research studies (Ali *et al.*, 2008) and practically no research endeavour on IC in the Bangladesh banking context, this study will contribute to filling the dearth of research on the topic area. Second, Mazumder (2005) opined that Bangladeshi companies have begun to make several social and environmental disclosures voluntarily, together with a few others such as economic value added and other statements in the recent times. Third, as Ali *et al.* (2008) observe, given the challenges now faced by the generality of Bangladeshi firms, both local and foreign banks are expected to be more visible in the economy. In order to meet such challenges, commercial banks in Bangladesh must demonstrate their efficiency not merely in terms of their physical capital but in relation to IC performance and reporting, which is believed to response the true quality of information offered to the stakeholders. Finally, Chowdhury (2000) noted that future financial reporting in Bangladesh was on the point of becoming strongly controlled by Securities and Exchange Commission's guidelines, which might in turn mandate public companies to fully report all the essential information to the shareholders. For this reason, it appears quite logical to discover IC in the annual reports of Bangladeshi banking companies' context.

The remainder of the paper is structured in the following sequence. The next section reviews IC and its importance, with particular attention on the limitations of traditional financial reporting in knowledge-based economies. This is followed by a short account of legitimacy and stakeholder theories, as they refer to the rationale of voluntary IC reporting. Section 4 provides a brief overview of Bangladesh and IC research in this country, and is followed by a pair of sections on the relevant literatures on IC definitions and IC measurement and reporting. Details of the study are outlined in Section 7, while the findings are reported and discussed in Section 8. The final section of the paper summarises its principal findings, and after discussing some of its limitations identifies a number of further research topics are presented.

2. Necessities of IC reporting: the downsides of conventional financial reporting in the knowledge-based economy

Recent years have witnessed a move towards measuring and reporting IC as well as the range of human and knowledge-based factors that tends to form unremitting economic value (Edvinsson and Malone, 1997). IC is viewed an important value driver in today's global knowledge economy since the modern competitive world is continuously being restructured by a number of forces including globalisation, emerging technologies, changing customer demands, changes in political and economic reshape (Guthrie and Petty, 1999; Volberda *et al.*, 2001). A number of research studies (Romer, 1998; King and Ranft, 2001) has documented that IC reporting can be used as a device to communicate a knowledge-based strategy externally. It can also be used as an internal management tool in response to the growing demand for knowledge-based products and services in the global economy. Whilst traditional accounting measurement largely overlooked these products (Tissen *et al.*, 2000), the market seeks to incorporate such assets into the market price of the firm (Bassi *et al.*, 2000; McConnell and Muscarella, 1985). Lev (1999) and Garcia-Ayuso (2002) concluded that the lack of IC information within firms' reporting domains tends to raise the cost of capital, which in turn leads to lower investment and growth, while the absence of IC information is likely to make stock prices unstable. Boone and Raman (1999) believed that such instability creates an insecurity that increases the spread in bid versus ask prices. On the other hand, some researchers have identified a variety of enticements for firms to report IC. According to Choo and Bontis (2002), the overriding benefit of IC reporting is "to render the invisible visible". Additionally, in terms of external benefits, there is increasing evidence to indicate that both resources providers and other stakeholder respond positively to organizations that report on their IC (Garcia-Ayuso, 2002; Lev, 1999, 2001).

Decision usefulness may possibly be another stimulator of IC reporting practice. This is because the wide-ranging set of added information (e.g. research and development expenses, customer satisfaction (Bukh, 2003), management experience and market share (Beattie and Pratt, 2002)), is constantly important for investors seeking to take informed decisions (Bukh and Johanson, 2003; Vandemaele *et al.*, 2005). Consequently, academic researchers have strongly criticized traditional financial reporting given that traditional reporting does not include many strategically important intangible resources. Research studies (see Bontis, 1998; Robertson and Lanfranconi, 2001; Samek, 2000; Fox and Schiff, 1996; Guthrie, 2000; Lev and Zarowin, 1999 for a detailed review) assert that the value of financial information have been flagging over the last decades and, resultantly, there has been a growing concern that since financial statements are no longer equipped to demonstrate the real value of business, they need to be reconfigured to accommodate the changed business conditions. Others (Canibano *et al.*, 2000; Mouritsen *et al.*, 2004; Lev, 2001; Vandemaele *et al.*, 2005) believe that traditional financial statements are less enlightening for the reason that they present dependable information rather than the information required to grasp how firms resources create value for the future. In contrast, IC provides a true, sustainable advantage necessary to compete effectively in the present technology driven global economy (Johanson *et al.*, 2001). For this reason, researchers have developed a variety of frameworks for incorporating the elements of IC, and more and more empirical researches enable academicians and practitioners to understand on the extent of IC reporting and its mechanism in different international setting.

3. Theoretical explanations for voluntary IC disclosures: legitimacy theory and stakeholder theory

Many theories drawn from the social and environmental reporting literature identify reasons for voluntarily disclosing IC information in the annual reports (Bornemann, 1999; Guthrie *et al.*, 2004). In this study, two of these, legitimacy theory and stakeholder theory are argued in the light of firms' efforts in respect of IC reporting. Legitimacy theory is based on the existence of a social contract that declares that firms will take action to make sure their behavior are perceived as legitimate. It also highlights that a firm would voluntarily report its activities as a response to a social expectation to substantiate company's image. Guthrie *et al.* (2004) argue that firms with high levels of IC will more be inclined to disclose their IC because they cannot fully legitimize their standing by means of the traditional symbols of corporate success, the tangible assets. While some researcher (Dzinkowski, 2000; Mouritsen *et al.*, 2004; Bontis, 1998) have stressed the firm's stipulation to communicate how "they uses its IC to generate value", Lindblom (1994) suggested that IC reporting can be a strategy for a firm whose legitimacy is in question to with its stakeholders.

Stakeholder theory holds that an organization's management will participate in, and report on, activities that are anticipated by the firm's stakeholders (Clarkson, 1995; Guthrie *et al.*, 2004; Meer-Kooistra and Zijlstra, 2001), and that stakeholders have a right to be provided with information about how they are affected by the firm's activities (Deegan *et al.*, 2000; Vandemaele *et al.*, 2005). Guthrie *et al.* (2006) argue that stakeholder theory suggests that organizations will decide to voluntarily disclose information about their intellectual, social and environmental performance, over and above mandatory requirements, in order to meet real and perceived stakeholder expectations. Therefore, it is argued that both theories are linked with firms' IC reporting decisions, which call for information about important corporate assets and voluntary disclosure in the annual reports of financial institutions.

4. The country Bangladesh and IC research: an overview

A predominantly agriculture driven country, Bangladesh has a population of more than 140 millions of people located in Southern Asia. Bangladesh moved from a socialist to a market-oriented model of development in the mid-1970s, following independence from Pakistan in 1971. The economy of Bangladesh is in the process of a transition from an agrarian to a quasi-industrial and service economy. GDP growth has steadily climbed to over 6 per cent a year in recent years, up from 4.8 per cent in the 1990s, and 3.5 per cent in the 1980s (BBS, 2007). Although predominantly an agrarian economy, the service sector's contribution to total GDP increased sharply from 36 per cent in 1970 to around 52 per cent in 2005-2007 (BBS, 2007). This improving growth was generated mainly as a consequence of numerous economic and financial reforms, and most specifically structural adjustment policies in the mid-1980s and the financial sector reform programme between 1992 and 1996. Banks and other financial institutions have played a key role in boosting economic activities and social conditions in the Bangladesh economy. They have developed a climate favourable to capital formation and nowadays constitute the core of the country's organized financial system. However, Arif *et al.* (2005) stated that due to the accelerated pace of information technology (IT), a knowledge driven economic system is essential to produce maximum benefit of utilizing mass human resources. Ahmad and Khanal (2007) observed that the financial sector would lose its competitiveness and would be unsuccessful to hold future economic growth if it continues to depend solely on the financial capital rather than putting more emphasis on knowledge-based capital.

With escalating global competition and its attendant rapid changes, banks have increasingly to provide superior product differentiation and value added services in order to remain competitive. Being aware of the inevitability of establishing sustainable competitive growth, the Bangladeshi banking sector has embraced a range of initiatives in a move towards knowledge-based resources. Raihan (2007) identified banks' upgrading of business processes into automated systems, the constant striving for efficient manpower creation, enhanced employees knowledge and competence, improved networks and offering value added services as examples of the necessary changes within the Bangladeshi banking industry. As a result, the banks provide Bangladesh with a measure of competitive advantage to be successful in the knowledge-based global economy.

In recent years listed companies in Bangladesh, and in particular the top conglomerates, have experienced an intense volatility in their turnover and growth. This led to a significant reduction in percentage of net profit for big firms (BBS, 2007) that expedited a decline in firms' margin rate. In this regards, investment in IC and the proper implementation of IC strategies are likely to play a critical role. In Bangladesh, only a very small number of research attempts on IC reporting practices are evident. The study conducted by Ali *et al.* (2008) on IC reporting practices of selected firms in Bangladesh through content analysis revealed that companies report very few IC items, with human capital (HC)-related information more extensively disclosed than other elements of IC. This study also highlighted that with changing global competition, HC and other components of IC have become an important aspect for the running smooth operation of today's business operations, without which firms would be in danger of losing much of their competitiveness. Thus, at present, organizations require to invest more time and effort to develop their human resources, thereby reinforcing the HC base, and to reporting these issues in order to build a good representation to the stakeholder than earlier.

5. IC elements: an operational view

Given that intellectual resources are customarily viewed as context specific, idiosyncratic, and therefore highly varied (Marr *et al.*, 2003), a number of interpretations in relation to IC have been provided by different researchers. For instance, Roslender and Fincham (2004, p. 12) defined IC as "[...] three relatively 'concrete' elements one relating to human abilities, another to internal organizational structures and a third to external structure". Brennan and Connell (2000, p. 424) viewed IC as:

> [...] assets relating to employee knowledge and expertise, customer confidence in the company and its products, brands, franchises, information systems, administrative procedures, patents, trademarks and the efficiency of company business processes.

IC is also widely represented as the summation of the human and structural capital in a firm. Edvinsson and Malone (1997, p. 11) believed that IC encompasses the applied experiences, organizational technology, customer relationships and professional skills. They argued that IC represents essentially a new way of looking at firm value which would largely fall outside of the boundary of traditional accounting. Stewart (1997) defines IC as intellectual material- knowledge, information, intellectual property and experience – that can be put to use to create wealth.

A more popular and widely accepted IC classification was advanced by Sveiby (1997). In his model, Sveiby described three types of IC: internal structure; external structure; and HC, together with 15 sub categories. Internal structure includes the organizational structure, management philosophy, corporate cultures, research and development, patents, copyright, information systems (technologies) and networking systems. According to Starovic and Marr (2003), technologies refer to the technological support of the other knowledge resources. Here, the focus is typically on the company's IT systems (software and hardware) such as the intranet, IT infrastructure, databases, or physical networks. External structure includes relationship with customers and suppliers, brand names, reputation, etc. Guthrie and Petty (2000, p. 4) considered that some of these can be viewed to be proprietary, but only in a temporal sense and, even then, not with any degree of confidence. This argument seems quite consistent in the sense that resources (relationship) that might be particularly valued for one firm, however, would quite be insignificant to another firm. For example, Dell Computers' prologue found on its direct sales order might provide good relationships with suppliers and customers, but, this (relational capital) is possibly of no value to other firms, say, a dental firm. Furthermore, it is difficult to recognize the value of individual IC (resources) without considering their interdependencies with other assets. For example, Marr *et al.* (2004) comment that possessing the latest IT is worth very little without the right knowledge of how to operate it or the necessary competencies to deal with its various output materials.

The third component of IC, HC, includes the educational backgrounds of employees together with their training, skills, experiences, know-how, entrepreneurial spirit, creativity and so on. It can also be termed as the combination of employees' knowledge, skills, experiences and abilities to solve problems. The importance of HC should not be understated. According to Guthrie and Petty (2000, p. 4), there is little "machinery" other than the employees in knowledge organizations.

6. Literature review

There is a growing body of literature on IC reporting in different international settings. Prominent studies have been produced in Australia (Guthrie *et al.*, 1999; Guthrie and Petty, 2000), Canada (Bontis, 2003), Hong Kong (Petty, 2003), Ireland (Brennan, 2001), Sweden (Olsson, 2001), New Zealand (Miller and Whiting, 2005), Spain (Gallego and Rodrıguez, 2005) and India (Pablos, 2005). Researchers in Australia are acknowledged as the pioneers in applying content analysis to IC reporting by the companies. Guthrie and Petty (2000) carried out a content analysis of the annual reports of the 20 largest Australian listed companies selected through market capitalization using the framework developed by Sveiby (1997). The results of their study revealed that the key components of IC are poorly understood, inadequately identified, incompetently managed and erratically reported. In her review of IC reporting in eleven listed companies and ten private companies in Ireland using content analysis, Brennan (2001) demonstrated findings similar to the Australian study. Olsson (2001) examined the annual reports of the 18 largest Swedish companies based on market capitalization on the Swedish stock market. The results indicated that none of the companies devoted more than seven per cent of reporting space to provide human resource information in their annual reports. In addition, the reported information was found to be significantly deficient in both the quality and extent of the disclosure.

In the Asian context, IC reporting research is also documented. Goh and Lim (2004) is a study of 20 Malaysian firms, which indicated that the nature of IC voluntary disclosures in company reports is highly qualitative rather than quantitative. In a study of 30 firms listed on Sri Lanka's Colombo Stock Exchange using the content analysis method, Abeysekera and Guthrie (2005) provide evidence of reporting focusing more on external capital than HC. In a subsequent comparative study of IC reporting in Sri Lanka and Singapore, Abeysekera (2008) identified differences in IC disclosure between Sri Lankan and Singaporean firms and suggested reasons for dissimilarities from country standpoints. In another comparative research study between Hong Kong and Australia, Guthrie *et al.* (2006) demonstrate that level of voluntary IC disclosures is found to be low and reported in qualitative rather than quantitative form in both countries. In the context of Pakistan, Makki *et al.* (2008) attempted to measure IC performance among 25 companies listed on the Lahore Stock Exchange using the VAIC™ model. Their findings conclude that the oil and gas, chemical and cement sectors show top performance in terms of IC components; the banking sector illustrates average performance, however, with public sector organizations evidencing the lowest levels of disclosure.

IC measurement and reporting in banking sector

There have been only a small number of studies of IC disclosure with specific reference to the banking sector. Goh (2005) measured the IC performance of commercial banks in Malaysia for the period 2001 to 2003 using Pulic's Value Added Intellectual Coefficient (VAICe) metric. The results of the study revealed that, as a whole, all banks have relatively higher HC efficiency than structural and capital efficiencies. In a second study, Kamath (2007) employed the VAICe to measure the value-based performance of the Indian banking sector for a period of five years from 2000 to 2004. The result of this study confirmed that there are vast differences in the intellectual and value creation performance of the Indian banking sector. Although several IC studies have examined the performance of IC measures in the era of advanced technologies, the body of knowledge remains in its earliest stage as there are no published evidences from IC literature to reflect IC reporting for banks coupled with focusing stakeholders' perception with regards to the financial institutions. One of the key motivations of current study is to begin to fill this gap.

7. The study

Data collection

The study included the collection of both primary and secondary data. As part of secondary sources, the annual reports of the largest private commercial banks (PCBs) listed on the Dhaka Stock Exchange for the year 2007-2008 were collected and analysed. Listed PCBs were chosen for the study because of their greater commitment and exposure to investors in respect of mandatory and voluntary reporting than unlisted banks. Within the sample frame, nationalized commercial banks and specialized banks were not included within the study on the grounds that the former did not have publicly available annual reports while the latter were neither associated with core banking transactions nor had listing status. Foreign banks were also excluded since the research study aimed at exploring the IC reporting status for local banks only.

The choice of annual reports as a source of information for IC research was made for several reasons. First, managements regularly signal important issues using this reporting mechanism, annual reports also representing the corporate concern in a comprehensive and compact manner (Niemark, 1995; Abeysekera and Guthrie, 2005). Second, annual reports are considered the most prevalent and acknowledged document regularly produced by the companies in Bangladesh. They are also regarded as the key means by which information about the company is provided (see Belal, 2000; Khan *et al.*, 2009 for a review). Both qualitative and quantitative information were identified from the annual reports. In the study, annual reports were extensively analysed and the different sections of the annual reports such as vision, mission and goals statement, chairman's message, directors' section, operation, financial statements, auditors' report and other sections were examined to understand how IC information differ in different sections communicated by sample banks. This practice is in line with the approach followed by Abeysekera (2007).

This research adopts the framework for IC items developed by Sveiby (1997, pp. 8-11), with further inclusion of some external capital and HC items. These are "banks recognition for services", "banks market share" and "number of trainings for employees". Some items were also removed from Sveiby's framework, on the grounds that these would be better reported within the internal management reports of banks and recognizing the fact that IC disclosures are new phenomenon in the banking sector. The item "trademarks" was excluded since it would be unusual to find this item in annual reports on account of the nature of operations for sample firms. In a similar vein, "distribution channel" was disregarded with regards to external capital. In HC category, "extent of employee training" has been incorporated to signify that employees' regular training a widespread practice in the Bangladeshi banking sector irrespective of size and types of operation. Earlier research studies on CSR reporting conducted in the Bangladesh context (Khan *et al.*, 2009; Khan, 2010) documented that employee training is most commonly reported item for banks. The item "vocational qualification" was not retained since it has been assumed that general education rather than vocational knowledge would more be suited for banks. Vocational qualifications are likely to be less attractive to employers compared with to university degrees when judging potential employees' academic attainments in Bangladesh banking context. Sveiby's framework has later been modified by Guthrie and Petty (2000) and was used in earlier research studies effectively (Abeysekera and Guthrie, 2005). Consequent to these changes, a total of 21 items consisting of eight internal capital-related items, seven external capital-related items and six HC-related items remain in each of the IC categories, as shown in Table I.

Sample size

The sample of banks comprised only the largest banks taken from the private banking sector, a practice compatible with other research studies (Abeysekera and Guthrie, 2005; Guthrie and Petty, 2000). For the purpose of this study, a large banking company has been recognized as one having a turnover of at least BDTk.20 million and in excess of 300 employees. The largest bank were included because they are regarded as being more interested in making social, environmental, IC and other voluntary disclosures. Moreover, it is recognized that larger organizations contain more prosperity to create supplementary disclosures (Adams *et al.*, 1998; Andrew *et al.*, 1989). The selected sample of banks represented around 70 per cent of the total asset base and deposits of

Table I.
IC framework adopted for the study

Internal capital	Human capital	External capital
Patent	Know how	Banks' reputation for services
Copyright	Employees' educational qualification	Customers
Management philosophy	Work-related knowledge	Customer/clients loyalty
Corporate culture	Work related competency	Companies' name
Management process	Entrepreneurial spirit	Business collaboration
Information system	Extent of employee training	Banks' market share
Networking system	–	Franchising and licensing agreements
Financial relations	–	–

Sources: Sveiby (1997); modified by Guthrie and Petty (2000) entire Bangladeshi banking sector. As a result, the sample selected for study includes many banks that are quoted on the Dhaka Stock Exchange. In summary, the sample selected is sensibly wide-ranging whilst still being of a controllable size.

Coding IC disclosure data

In order to codify the data, the value "0" was assigned for not having information and the value "1" was assigned where the information was made available. Content analysis is an established method for studying annual reports and has been widely used in the IC reporting field of accounting research (Abeysekera and Guthrie, 2005; Abeysekera, 2006; Bozzolan *et al.*, 2003; Sujan and Abeysekera, 2007). It is a comprehensively tested research instrument also used for several other cognate studies (see Andrew *et al.*, 1989; Choon *et al.*, 2000; Guthrie, 1999; Guthrie and Mathews, 1985; Olsson, 2001; Subbarao and Zeghal, 1997 for a review). Information reported in accordance with accounting standards in Bangladesh or under corporate law was disregarded since such information is reported to meet mandatory requirements. Selection of only voluntary information disclosures is consistent with other IC research studies in several countries. For example, Guthrie and Petty (2000) in Australia, Brennan (2001) in Ireland and Abeysekera and Guthrie (2005) in Sri Lanka, restricted their examination of IC information contained in annual reports to voluntary disclosures only.

This study used word count as the unit of communication. It was chosen as the context unit instead of sentences, paragraphs or pages, despite acknowledged constraints and the observation that sentences are more easily identifiable wholes (Carney, 1972). The choice of word count is in part due to the realization that IC reporting is only a recent phenomenon in the Bangladesh context. Carney (1972, p. 74) observes that:

> [. . .] a word always carries a number of messages simultaneously and it is multidimensional. Furthermore, the meaning of words shifts and changes for a person, for example, as a person matures.

Although tables, charts or pictures might also be used to communicate IC information in place of text by some companies (Marston and Shrives, 1991), such representations were not incorporated into the study because of measurement problems (Wilmshurst and Frost, 2000; Guthrie *et al.*, 2004). For each of the item, data were gathered and recorded in terms of location (where it appeared within the annual reports), type of data (qualitative or numerical) and the number of times it appeared in the annual report. Qualitative data were recorded in the coding sheet, by means of an IC framework that includes the internal capital, external capital and HC elements. In the study, we describe an IC item as an IC component. Therefore, the existence of one or more components are likely to head an IC sub-category as a whole.

The approach followed to ensure reliability in coding procedure is that the two researchers and a research assistant participated in the entire coding process. Any inconsistencies in coding between the three coders were reduced through consultation. The data recorded in the coding framework was appraised after a time interval, thereby ensuring the impartiality and consistency of coded data. Furthermore, the reproducibility in relation to content analysis was reviewed using the Krippendorff alpha metric [a measure of the agreement between coders (α) (Krippendorff, 2004b)] which yielded the value of 0.798 at the category level and 0.828 at the element level, subsequent to the second round of coding thus emphasizing a level of conformity above the minimum boundary of acceptance (Milne and Adler, 1999). According to Krippendorff (2004a, p. 245):

> When coders agree perfectly, observed disagreement (D_o) equals to zero and alpha (α) equals to one, which indicates perfect reliability. But when observers agree as if chance had produced the results, $D_o = D_e$ (expected disagreement) and alpha equals to zero, it specifies the absence of reliability. Further, if alpha equals to zero, data are totally uninformative of anything outside the process of generating them. Therefore, for reliability considerations, alpha's range is $1 \geq \alpha \geq 0$.

In our study, as alpha value is close to one in both cases, the expected and observed disagreements between coders are assumed to be rather immaterial.

While researchers' personal idiosyncrasies and biases should be removed (Wimmer and Dominicks, 2003) from the findings for a content analysis to be objective, in reality, the meaning adduced from contents depends very closely on coders' interpretations and inferences. With regards to sampling error, Lacy and Riffe (1996, p. 973) illustrated that three factors are relevant, namely the size of the sample, the homogeneity of the population and the proportion of population in the sample likely to have sampling errors. As a matter of fact, it is probable that there will be some divergence between sampling results (sampling error) and population results; however, the extent of these differences is expected to be insignificant. In this research study, because sample size satisfactorily characterizes the whole population under study, it is likely that the method of reducing sampling error has adequately been addressed.

Administering the users' questionnaire

In pursuit of the second research aim, primary data were collected by means of a questionnaire designed to investigate the level of users' understanding and their perception towards IC reporting. A questionnaire, together with a covering letter was used and a postage-paid self-addressed envelop, was sent to 40 annual report stakeholders. Respondents were chosen from the list of stakeholders groups identified in "The Framework for the Preparation and Presentation of Financial Statements", published by the International Accounting Standards Committee and Bangladesh Accounting Standards. The profile of the sample was: academicians (12.5 per cent); bank managers (20 per cent); shareholders (25 per cent); chief accountants (17.5 per cent), human resources directors (10 per cent) and customer representatives (15 per cent). This selection procedure is consistent with the study by Khan *et al.* (2009). Subsequent to obtaining the addresses of respondents from publicly available data, the questionnaires were sent to these people at their business addresses.

Recipients were also provided with a copy of annual reports of banking companies, a concise explanation of IC reporting issues and a number of statements examining their perceptions with regards to IC reporting. The respondents were guaranteed that the information provided would be kept private and individual information would not be divulged. A five-point Likert type scale was used in the ten statements incorporated in the questionnaires. The respondents were requested to place a numerical value on each statement, from 1 to 5, where five denotes the highest priority and one stands for lowest priority. To ensure internal consistency of data and to assess the relationship between different parts of the questionnaire, the Cronbach alpha test was conducted. The Cronbach alpha ranges from zero to one where zero indicates no correlation between different parts of the questionnaire and one shows perfect correlation among them. An acceptable alpha value of 0.80 was achieved in the study, comfortably exceeding the 0.70-threshhold value for this test (Huck and Cormier, 1996; Botasen, 1997). In order to maximize the response rate, reminders were sent to all the respondents via e-mails about two weeks after the questionnaires were posted. In due course all 40 respondents returned their completed questionnaires. This reply rate may be due to the limited length of the questionnaires and/or the participant's interest in the subject matter of research.

8. Findings and discussion

Table II indicates that although IC reporting is voluntary in Bangladesh, PCBs commitment in IC activities and reporting is currently limited. In connection with the amount of overall disclosure, the results show that total number of IC items disclosed is 29.28 per cent by surveyed banks. This figure suggests that Bangladeshi banking firms, on average, are not responsive to the importance of IC.

Table III reports the detail of IC reporting for each element. It indicates that there is evidence of an awareness of the importance of IC variables but no strong promise to interpret and communicate information about their IC resources on the part of the Bangladeshi banking sector. The result show that most of the banks reported HC-related information; all disclosed information on the extent of employee training, while 75 per cent reported employees work-related knowledge and employees qualification. Employee competency and know how were also notable items included in the HC category. The evidence of reporting HC items in annual reports most extensively is consistent with several other studies in the Bangladesh setting (see Ali *et al.*, 2008; Khan *et al.*, 2009 for a review). The significant reporting on specific areas of HC suggests that firms' managements favour presenting additional, suitable and helpful information to the public with the aim of grabbing attention and to exhibit their priorities on human resources or regarding their competitive positioning than the competitors.

In the internal capital category, information systems was the most reported items (50 per cent), followed by banks networking systems (20 per cent). Corporate culture, management processes and copyrights are the least reported items (10 per cent) in this category. No banks reported anything in relation to patents, financial relations and management philosophy. This could be due to a lack of knowledge of measuring such items or a lack of consensus about the need for such disclosures. Customer/client loyalty was the most reported item (50 per cent) in the external capital category. Customers and market share were the second most reported items (40 per cent) and

Number of banks	20
Number of industry groups	1
Number of IC variables used in model	21
Overall reporting score (in percent)	29.3[a]
Maximum number of variables reported by any one banking company	14
Minimum number of variables reported by any one banking company	2

Note: [a]This figure originates from the sum of the items reported divided by total number of items (expressed as a percentage)

Table II. Descriptive statistics for the samples

IC elements	No. of banks reporting this item	Percentage	Word count
1. Internal (structural) capital information			
Patents	–	–	–
Copyrights	2	10	30
Financial relation	–	–	–
Management philosophy	–	–	–
Corporate culture	2	10	50
Management processes	2	10	45
Information systems	10	50	245
Networking systems	4	20	59
2. Human capital (employees' competence) information			
Know how	6	30	62
Academic education	15	75	453
Work-related knowledge	15	75	400
Work-related competency	10	50	274
Entrepreneurial spirit	5	25	79
Extent of employee training	20	100	702
3. External (customer/relational) capital information			
Banks recognition for services	2	10	20
Customers	8	40	175
Customer/client loyalty	10	50	250
Company names	–	–	–
Business collaborations	3	15	15
Market share	8	40	170
Franchising and licensing agreements	–	–	–
Total		29.28%	

Table III.
Frequency of reporting specific attributes

recognition for services was the least reported item in this category. In addition, although three banks reported collaborations with other banks or firms in other industries, none any disclosed any information on franchising and licensing agreements or company names.

The zero level of reporting on company name is rather surprising; however, the reluctance to report franchising and licensing agreements could be indicative of the existence of little or no franchising and licensing agreements opportunities for Bangladeshi banks to enjoy with foreign firms. On the other hand, our analysis of IC reporting practice indicates that there appears to be no consistent framework of reporting IC in the banking sector. All the disclosures were expressed in discursive rather than numerical terms.

Findings based on category

In respect of the *RQ2* identified in the introduction, Table IV summarizes IC reporting among this sample of Bangladeshi PCBs in terms of category.

Human capital items are the most reported categories in terms of both frequency and word count (65.0 per cent of word count). On the other hand, internal capital items were the least reported (14.2 per cent of word count) by the banks surveyed. These results are not consistent with practices reported for other countries such as Australia and Sri Lanka. This lack of enthusiasm towards internal capital items seems odd given that Bangladeshi banks have in recent years put more emphasis on information systems, strengthening infrastructure assets facilities, reconfiguring management philosophies, etc. Prioritisation on HC reporting can also be observed as the companies thoughts on value chains, measuring customer profitability, improving employees' satisfaction and enhancing their skill sets and creative capacities, adopting new strategies for serving customer and re-assessing customer value, is deemed essential in case of banking sector. A further explanation of why Bangladeshi banks emphasize HC so much is because their objectives may be similar to those of Danish firms (Mouritsen *et al.*, 2004). This study revealed that more than 90 per cent of firms stated that one motivation for preparing IC statement is to show that human resources are their most important assets. Likewise, and consistent with the findings of Bukh (2003), banks in Bangladesh might focus on reporting human resources as a strategy to attract good employees or as a device to affirm that they recognize employees' knowledge as a key asset.

Location of IC disclosures

The positioning of IC disclosures in the annual report is seen as an indicator of how important management views IC to be to the company (Guthrie, 1999; Petty and Guthrie, 2000). Table V indicates that in the majority of cases within this sample of banks, the chairman's message was the place where such IC disclosures were the most common.

In no bank was IC information disclosed separately, i.e. in its own report. Current calls from within Bangladesh for guidance on how IC should be reported within annual reports may result bring about a change to this situation in due course.

The users' questionnaire

The questionnaire used to survey users' views was divided into two sections, the first of which focused on general issues with more specific IC-related statements explored in

Category of information	Total score for all categories of information (f)	Total word count for all category of information	Percentage (words)
Category A. Information relating to internal capital	43	429	14.2
Category B. Information relating to human capital	150	1,970	65.0
Category C. Information relating to external capital	62	630	20.8
Total	255	3,029	100

Table IV. Overall IC reporting results according to category

Sections of annual reports	Percentage of items reported
Vision, mission and goals statement	–
Chairman's message	60
Directors' report	30
Financial review	–
Operations review	–
Audit report	–
Other sections	10

Table V. ICs reporting by sections in the annual reports second section. All 40 respondents replied that the companies should divulge information about IC in their annual reports. A total of 25 respondents (62.5 per cent) believed that this kind of disclosure would help the users in taking investment decisions, while 30 respondents (75 per cent) indicated that companies should use a combination of representations to facilitate better understanding by users. A total of 32 respondents (80 per cent) replied that information about IC should be published in a separate section rather than in the chairman's message or director's report. The majority of respondents (90 per cent) favoured the accounting profession and/or regulatory authorities taking a lead on the introduction of additional IC disclosure requirements for listed banking companies in Bangladesh.

The second section of the questionnaire was related to issues that should be included in such disclosures. The descriptive statistics for each of these issues and the ranking are shown in Tables VI and VII. Table VI indicates that what users want banks to report most are the budgeted costs for training and training costs per employees (mean = 4.76 and SD = 0.232). One possible argument in support of this point is that respondents are not merely satisfied with having information about the extent of training. They wish to see the banks' actual financial commitment to improving their workforces reflected in external disclosures. The banks' commitment and loyalty towards customer service is the next most requested disclosure issue. This is followed by banks net working system and IT infrastructure (mean = 4.23 and SD = 0.428) and

Statements	Mean	SD	Maximum	Minimum
S1	2.344	0.939	4	1
S2	4.762	0.232	5	4
S3	4.561	0.347	5	4
S4	3.457	0.652	5	2
S5	3.472	0.636	5	2
S6	3.763	0.558	5	3
S7	3.043	0.753	5	2
S8	2.351	0.926	4	1
S9	4.234	0.428	5	4
S10	4.083	0.497	5	4

Note: $n = 40$

Table VI.
Descriptive statistics of users response on different IC statements

	IC reporting issues: disclosure of	Ranking
S1	Human resources development and recruitment policy	10
S2	The budgeted costs for training and amount of training costs per employee	1
S3	Banks commitment and loyalty towards customer service	2
S4	Employees analytical and entrepreneur skill	7
S5	Work-related competence of employees	6
S6	Organization information system	5
S7	Management philosophy and organizational culture	8
S8	Banks collaboration with different organization	9
S9	Banks net working system and IT infrastructure	3
S10	Banks service delivery channel	4

Table VII.
Respondents' preference with respect to IC reporting issues

banks service delivery channel (mean = 4.08 and SD = 0.497). However, banks' collaboration with different organizations (mean = 2.35 and SD = 0.926) and human resources development and recruitment policies (mean = 2.34 and SD = 0.939) appear to be of less interest to respondents.

9. Conclusion, limitations and further research scope

The study set out to document the current state of IC reporting among a sample of large Bangladeshi PCB listed on the Dhaka Stock Exchange. In addition, the study offers some empirical data on the perceptions of a sample of stakeholders on such reporting initiatives. The overall findings reveal that Bangladeshi bank managements are less cognisant about the significance of such strategic assets and attempts at measuring, valuing and reporting IC are currently rather unimpressive. The sample of PCBs disclosed considerably more HC items than other categories of IC items. The reporting of IC employed narrative rather than numerical terms in every case. These findings are similar to those reported in the study by Ali *et al.* (2008) and in other countries (Abeysekera and Guthrie, 2005; Guthrie *et al.*, 2004). The study therefore concludes that there is no established and mutually agreed framework for reporting IC in the Bangladeshi banking sector and thereby low quantification of IC was not beyond our thought.

The second section of the questionnaire provided information on the perceptions of users relating to IC disclosures. All users group are in favour of such IC reporting in annual reports and more than half believe IC information is important to their investment decision making. With respect to the ranking of preferential IC items, most users assumed that "the budgeted cost for training and amount of training cost per employee" is the most important item in IC disclosures. The importance of the human resources and customer services are reinforced in the general definitions of HC and customer satisfaction research. Consequently, the study has implications for the regulatory bodies in Bangladesh in their deliberations about the provision of guidance on IC reporting. We believe that the study has both theoretical and practical implications. From a theoretical standpoint, it provides insights on IC disclosure in the banking sector in developing countries and captures users' observation on such reporting, thereby extending our current understanding of the IC research phenomenon in the specific context of the financial sector. From a practical point of view, the study may be of relevance to regulators and other standard setting bodies in developing mandatory reporting or additional policy requirements.

The findings of the study must be interpreted in the light of some of its limitations, which in turn provide a motivation for further research. First, the analysis of the annual reports is based on a small sample of Bangladeshi PCBs' annual reports in the year 2007-2008, which means that they should not be generalized to the non-banking sector nor to other developing countries. Second, the results of the study must be understood to apply in the largest banks and should not be generalized to small and medium-sized banking firms. Third, the study considers the examination of banks' annual report for one year only. IC reporting trends may change over time, however. Further research could include a longitudinal study based on a larger sample and also including the non-banking sector. Fourthly, the study acknowledges the limitation of "words" as the recording unit; taking "sentences" as the unit of communication would be desirable in future studies, with the promise to add more rigour to the findings.

Further research might also incorporate case studies in order to provide a more comprehensive understanding about the types of IC and knowledge management information perceived to be of most importance by management.

References

Abeysekera, I. (2006), "The project of intellectual capital disclosure: researching the research", *Journal of Intellectual Capital*, Vol. 7 No. 1, pp. 61-77.

Abeysekera, I. (2007), *Intellectual Capital Accounting: Practices in a Developing Country*, Routledge, New York, NY.

Abeysekera, I. (2008), "Intellectual capital disclosure trends: Singapore and Sri Lanka", *Journal of Intellectual Capital*, Vol. 9 No. 4, pp. 723-37.

Abeysekera, I. and Guthrie, J. (2005), "An empirical investigation of annual reporting trends of intellectual capital in Sri Lanka", *Critical Perspectives on Accounting*, Vol. 16, pp. 151-63.

Adams, C.A., Hill, W.Y. and Roberts, C.B. (1998), "Corporate social reporting practices in Western Europe: legitimating corporate behaviour?", *British Accounting Review*, Vol. 30 No. 1, pp. 1-21.

Ahmad, S. and Khanal, D.R. (2007), "Services trade in developing Asia: a case study of the banking and insurance sector in Bangladesh", Working Paper Series No. 38, July, Asia-Pacific Research and Training Network on Trade, Bangkok, pp. 1-38.

Ali, M.M., Khan, M.H.U.Z. and Fatima, J.K. (2008), "Intellectual capital reporting practices: evidence from Bangladesh", *Dhaka University Journal of Business Studies*, Vol. 29 No. 1, pp. 23-45.

Alwert, K., Bornemann, M. and Kivikas, M. (2004), "Intellectual capital statement – made in Germany. Guideline", Federal Ministry for Economics and Technology, Berlin, available at: www.bmwi.de/BMWi/Redaktion/PDF

Andrew, B.H., Gul, F.A., Guthrie, J.E. and Teoh, H.Y. (1989), "A note on corporate social disclosure practices in developing countries: the case of Malaysia and Singapore", *British Accounting Review*, Vol. 21, pp. 371-6.

Arif, K., Choudhury, T.A. and Raihan, A. (2005), "Euro: exchange rate mechanism and impact on financial market: issues and opportunities for Bangladesh", *Journal of BIBM*, Vol. 17, pp. 15-18.

Bassi, L. and van Buren, M. (1999), "Valuing investments in intellectual capital", *International Journal of Technology Management*, Vol. 18 Nos 5/6/7/8, pp. 414-32.

Bassi, L.J., Lev, B., Low, J., McMurrer, D.P. and Siesfeld, G.A. (2000), "Measuring corporate investments in human capital", in Blair, M.M. and Kochan, T.A. (Eds), *The New Relationship, Human Capital in the American Corporation*, Brookings Institution, Washington, DC.

BBS (2007), *Statistical Yearbook of Bangladesh*, Bangladesh Bureau of Statistics, Dhaka.

Beattie, V. and Pratt, K. (2002), *Voluntary Annual Report Disclosures: What Users Want*, The Institute of Chartered Accountants of Scotland, Edinburgh.

Belal, A.R. (1997), "Green reporting practices in Bangladesh", *The Bangladesh Accountant*, Vol. 25 No. 2, pp. 107-15.

Belal, A.R. (2000), "Environmental reporting in developing countries: empirical evidence from Bangladesh", *Eco-Management and Auditing*, Vol. 17 No. 3, pp. 114-21.

Bontis, N. (1998), "Intellectual capital: an exploratory study that develops measures and models", *Management Decision*, Vol. 36 No. 2, pp. 63-76.

Bontis, N. (1999), “Managing organizational knowledge by diagnosing intellectual capital: framing and advancing the state of the field”, *Intellectual Journal of Technology Management*, Vol. 18 Nos 5/6/7/8, pp. 433-62.

Bontis, N. (2003), “Intellectual capital disclosures in Canadian corporations”, *Journal of Human Resource Costing & Accounting*, Vol. 7 Nos 1/2, pp. 9-20.

Boone, J. and Raman, K. (1999), “Off-balance sheet R&D assets and market liquidity”, working paper, Missisipi State University, Starkville, MS.

Bornemann, M. (1999), “Potential of value systems according to the VAIC method”, *International Journal of Technology Management*, Vol. 18 Nos 5/6/7/8, pp. 463-75.

Botasen, C.A. (1997), “Information level and cost of equity capital”, *The Accounting Review*, Vol. 72 No. 3, pp. 323-49.

Bozzolan, S., Favotto, F. and Ricceri, F. (2003), “Italian annual intellectual capital disclosure: an empirical analysis”, *Journal of Intellectual Capital*, Vol. 4 No. 4, pp. 543-58.

Brennan, N. (2001), “Reporting intellectual capital in annual reports: evidence from Ireland”, *Accounting, Auditing & Accountability Journal*, Vol. 14 No. 4, pp. 423-36.

Brennan, N. and Connell, B. (2000), “Intellectual capital: current issues and policy implications”, *Journal of Intellectual Capital*, Vol. 1 No. 3, pp. 206-40.

Bukh, P.N. (2003), “The relevance of intellectual capital disclosure: a paradox?”, *Accounting, Auditing & Accountability Journal*, Vol. 16 No. 1, pp. 49-56.

Bukh, P.N. and Johanson, U. (2003), “Research and knowledge interaction: guidelines for intellectual capital reporting”, *Journal of Intellectual Capital*, Vol. 4 No. 4, pp. 576-87.

Canibano, L., Garcia-Ayuso, M. and Sanchez, P. (2000), “Accounting for intangibles: a literature review”, *Journal of Accounting Literature*, Vol. 19, pp. 102-30.

Carney, T.F. (1972), *Content Analysis, a Technique for Systematic Inference from Communications*, University of Manitoba Press, Winnipeg.

Choo, C.W. and Bontis, N. (2002), *The Strategic Management of Intellectual Capital and Organizational Knowledge*, Oxford University Press, New York, NY.

Choon, H., Smith, M. and Taylor, S. (2000), “What do Australian annual reports say about future earnings?”, *Australian Accounting Review*, Vol. 10 No. 1, pp. 17-25.

Chowdhury, A. (2000), “Financial reporting of Bangladeshi manufacturing companies”, *Dhaka University Journal of Business Studies*, Vol. 19 No. 1, pp. 22-41.

Clarkson, M.B.E. (1995), “A stakeholder framework for analysing and evaluating corporate social performance”, *The Academy of Management Review*, Vol. 20 No. 1, pp. 92-117.

Deegan, C., Rankin, M. and Voght, P. (2000), “Firms’ disclosure reactions to major social incidents: Australian evidence”, *Accounting Forum*, Vol. 24 No. 1, pp. 101-30.

Dzinkowski, R. (2000), “The measurement and management of intellectual capital”, *Management Accounting*, Vol. 32 No. 5, pp. 23-48.

Edvinsson, L. and Malone, M.S. (1997), *Intellectual Capital: Realizing Your Company’s True Value by Finding its Hidden Brainpower*, Harper Business Press, New York, NY.

Fox, J. and Schiff, L. (1996), “Reporting sales of segments: searching for nonfiction in financial statements”, *Fortune*, Vol. 134, pp. 38-9.

Gallego, I. and Rodrıguez, L. (2005), “Situation of intangible assets in Spanish firms: an empirical analysis”, *Journal of Intellectual Capital*, Vol. 6 No. 1, pp. 105-26.

Garcia-Ayuso, M. (2002), “Factor explaining the in ethical valuation of intangibles”, working paper, Department of Accounting and Financial Economics, Universidad De Sevilla, Sevilla.

Goh, P.C. (2005), "Intellectual capital performance of commercial banks in Malaysia", *Journal of Intellectual Capital*, Vol. 6 No. 3, pp. 385-96.

Goh, P.C. and Lim, P.K. (2004), "Disclosing intellectual capital in company annual reports evidence from Malaysia", *Journal of Intellectual Capital*, Vol. 5 No. 3, pp. 500-10.

Guthrie, J. (1999), "An investigation into Australian annual reporting practices of intellectual capital", paper presented at KNOW'99, UTS Knowledge Management Conference, Sydney, November.

Guthrie, J. (2000), "Intellectual capital: Australian annual reporting practices", *Journal of Intellectual Capital*, Vol. 1 No. 3, pp. 241-51.

Guthrie, J. and Mathews, M. (1985), "Corporate social accounting in Australasia", *Research in Corporate Social Performance and Policy*, Vol. 7, pp. 251-77.

Guthrie, J. and Petty, R. (1999), "Knowledge management", *Company Secretary (HK)*, Vol. 9 No. 1, pp. 38-41.

Guthrie, J. and Petty, R. (2000), "Intellectual capital: Australian annual reporting practices", *Journal of Intellectual Capital*, Vol. 1 No. 3, pp. 241-51.

Guthrie, J., Petty, R. and Ricceri, F. (2006), "The voluntary reporting of intellectual capital: comparing evidence from Hong Kong", *Journal of Intellectual Capital*, Vol. 7 No. 2, pp. 254-71.

Guthrie, J., Petty, R., Ferrier, F. and Wells, R. (1999), "There is no accounting for intellectual capital in Australia: a review of annual reporting practices and the internal measurement of intangibles", paper presented at OECD Symposium on Measuring and Reporting of Intellectual Capital, Amsterdam, June.

Guthrie, J., Petty, R., Yongvanich, K. and Ricceri, F. (2004), "Using content analysis as a research method to inquire into intellectual capital reporting", *Journal of Intellectual Capital*, Vol. 5 No. 2, pp. 282-93.

Hansson, B. (1997), "Personal investments and abnormal returns: knowledge based firms and human resources accounting", *Journal of Human Resources, Costing and Accounting*, Vol. 2 No. 2, pp. 2-29.

Huck, S.W. and Cormier, W.H. (1996), *Reading Statistics and Research*, Harper Collins College Publishers, New York, NY.

Imam, S. (2000), "Corporate social performance reporting in Bangladesh", *Managerial Auditing Journal*, Vol. 15 No. 3, pp. 133-41.

Johanson, U., Martensson, M. and Skoog, M. (2001), "Mobilizing change through the management control of intangibles", *Accounting, Organization and Society*, Vol. 26 Nos 7/8, pp. 715-33.

Kamath, B.G. (2007), "The intellectual capital performance of Indian banking sector", *Journal of Intellectual Capital*, Vol. 8 No. 1, pp. 96-123.

Khan, M.H.U.Z. (2010), "The effect of corporate governance elements on corporate social responsibility (CSR) reporting: empirical evidence from Private Commercial Banks of Bangladesh", *International Journal of Law and Management*, Vol. 52 No. 2 (forthcoming issue).

Khan, M.H.U.Z., Halabi, A.K. and Samy, M. (2009), "CSR reporting practice: a study of selected banking companies in Bangladesh", *Social Responsibility Journal*, Vol. 5 No. 3 pp. 43-57.

King, A.W. and Ranft, A.L. (2001), "Capturing knowledge and knowing through improvisation: what managers can learn from the thoracic surgery board certification process", *Journal of Management*, Vol. 27, pp. 255-77.

Krippendorff, K. (2004a), *Content Analysis: An Introduction to Its Methodology*, 2nd ed., Sage, Thousand Oaks, CA.

Krippendorff, K. (2004b), “Reliability in content analysis: some common misconceptions and recommendations”, *Human Communication Research*, Vol. 30 No. 3, pp. 411-33.

Lacy, S. and Riffe, D. (1996), “Sampling error and selecting inter coder reliability samples for nominal content categories”, *Journalism and Mass Communication Quarterly*, Vol. 73 No. 4, pp. 963-74.

Lev, B. (1999), “The inadequate public information on intellectual capital and its consequence”, *Conference Proceeding: Measuring and Reporting Intellectual Capital, Experience, Issues and Prospects, An International Symposium, Organisation for Economic Co-operation and Development, Amsterdam*.

Lev, B. (2001), *Intangibles: Management, Measurement and Reporting*, Brookings Institutions Press, Washington, DC.

Lev, B. and Zarowin, P. (1999), “The boundaries of financial reporting and how to extend them”, *Journal of Accounting Research*, Vol. 37, pp. 353-85.

Lindblom, C.K. (1994), “The implications of organizational legitimacy for corporate social performance and disclosures”, paper presented at the Critical Perspective on Accounting Conference, New York, NY, April.

McConnell, J.J. and Muscarella, C.J. (1985), “Corporate capital expenditure decisions and the market value of the firms”, *Journal of Financial Economics*, Vol. 14, pp. 399-422.

Makki, M.M.A., Lodhi, S.A. and Rahman, R. (2008), “Intellectual capital performance of Pakistani listed corporate sector”, *International Journal of Business and Management*, Vol. 3 No. 10, pp. 45-51.

Marr, B. and Schiuma, G. (2001), “Measuring and managing intellectual capital and knowledge assets in new economy organizations”, in Bourne, M. (Ed.), *Handbook of Performance Measurement*, Gee & Co., London.

Marr, B., Gray, D. and Neely, A. (2003), “Why do firms measure their intellectual capital”, *Journal of Intellectual Capital*, Vol. 4 No. 4, pp. 441-64.

Marr, B., Schiuma, G. and Neely, A. (2004), “The dynamics of value creation – mapping your intellectual performance drivers”, *Journal of Intellectual Capital*, Vol. 5 No. 2, pp. 257-67.

Marston, C.L. and Shrives, P. (1991), “The use of disclosure indices in accounting research: a review article”, *British Accounting Review*, Vol. 23 No. 3, pp. 195-210.

Mazumder, B. (2005), “Financial reporting practices in Bangladesh: mandatory vs voluntary”, *Journal of Business Studies*, Vol. 5 No. 2, pp. 32-47.

Meer-Kooistra, J. and Zijlstra, S.M. (2001), “Reporting on intellectual capital”, *Accounting, Auditing & Accountability Journal*, Vol. 14 No. 4, pp. 456-76.

Miller, J. and Whiting, R. (2005), “Voluntary disclosure of intellectual capital and the ‘hidden value’”, paper presented at AFAANZ Conference, Melbourne, 3-5 July.

Milne, M.J. and Adler, R.W. (1999), “Exploring the reliability of social and environmental disclosures content analysis”, *Accounting, Auditing & Accountability Journal*, Vol. 12 No. 2, pp. 237-56.

Mouritsen, J. (1998), “Driving growth: economic value added versus intellectual capital”, *Management Accounting Research*, Vol. 9 No. 4, pp. 461-82.

Mouritsen, J., Bukh, P.N.D. and Marr, B. (2004), “Reporting on intellectual capital: why, what and how”, *Measuring Business Excellence*, Vol. 8 No. 1, pp. 46-54.

Niemark, M.K. (1995), *The Hidden Dimensions of Annual Report: Sixty Years of Social Conflict at General Motors*, Markus Wiener, Princeton, NJ.

Olsson, B. (2001), "Annual reporting practices: information about human resources in corporate annual reports in major Swedish companies", *Journal of Human Resources Costing and Accounting*, Vol. 6 No. 1, pp. 39-52.

Pablos, P.O. (2005), "Intellectual capital reports in India: lessons from a case study", *Journal of Intellectual Capital*, Vol. 6 No. 1, pp. 141-9.

Petty, R. (2003), "The correlation between the voluntary disclosure of intellectual capital indicators and financial success", working paper delivered to a conference, Citigroup Global Consumer and Investment Bank, Hong Kong, August.

Petty, R. and Guthrie, J. (2000), "Intellectual capital literature review: measurement, reporting and management", *Journal of Intellectual Capital*, Vol. 1 No. 2, pp. 155-76.

Raihan, A. (2007), "Computerised banking: is the financial system of Bangladesh ready?", paper presented at the National Seminar on "E-banking: prospects for Bangladesh", organized by ICMAB, ICMAB Bhaban, Dhaka.

Robertson, D.A. and Lanfranconi, C. (2001), "Financial reporting: communicating intellectual property", *Ivey Business Journal*, Vol. 65 No. 4, pp. 8-11.

Romer, P.M. (1998), "Two strategies for economic development: using ideas and producing ideas", in Klein, D.A. (Ed.), *The Strategic Management of Intellectual Capital*, Butterworth-Heinemann, Woburn, MA.

Roos, J., Roos, G., Edvinsson, L. and Dragonetti, N.C. (1997), *Intellectual Capital: Navigating in the New Business Landscape*, Macmillan, London.

Roslender, R. and Fincham, R. (2004), "Intellectual capital accounting in the UK: a field study perspective", *Accounting, Auditing & Accountability Journal*, Vol. 17 No. 2, pp. 178-209.

Samek, S.M. (2000), *Hearing on Adapting a 1930's Financial Reporting Model to the 21st Century*, American Institute Of Certified Public Accountants, New York, NY.

Starovic, D. and Marr, B. (2003), *Understanding Corporate Value – Measuring and Reporting Intellectual Capital*, Chartered Institute of Management Accountants, London.

Stewart, K.E. (1997), *The New Wealth of Organizations*, Doubleday/Currency, New York, NY.

Subbarao, A.V. and Zeghal, D. (1997), "Human resources information disclosure in annual reports: an international comparison", *Journal of Human Resource Costing & Accounting*, Vol. 2 No. 2, pp. 53-73.

Sujan, A. and Abeysekera, I. (2007), "Intellectual capital reporting practices of the top Australian firms", *Australian Accounting Review*, Vol. 17 No. 2, pp. 71-83.

Sveiby, K.-E. (1997), *The New Organisational Wealth: Managing and Measuring Knowledge based Assets*, Berrett-Koehler Publishers, San Francisco, CA.

Tissen, R., Andriessen, D. and Deprez, F.L. (2000), *The Knowledge Dividend: Creating High-Performance Companies through Value-based Knowledge Management*, Pearson Education, Harlow.

Vandemaele, S.N., Vergauwen, P.G.M.C. and Smith, A.J. (2005), "Intellectual capital disclosures in Netherlands, Sweden, and the UK", *Journal of Intellectual Capital*, Vol. 6 No. 1, pp. 89-104.

Volberda, H.W., Baden-Fuller, C. and van den Bosch, A.J. (2001), "Mastering strategic renewal, mobilising renewal journeys in multi-unit firms", *Long Range Planning*, Vol. 34, pp. 159-78.

Wilmshurst, T.D. and Frost, G.R. (2000), "Corporate environmental reporting. A test of legitimacy theory", *Accounting, Auditing & Accountability Journal*, Vol. 13 No. 1, pp. 10-26.

Wimmer, R.D. and Dominicks, J.R. (2003), *Mass Media Research: An Introduction*, 7th ed., Thomson/Wadsworth, Belmont, CA.

Further reading

Abeysekera, I. (2003), "Accounting for intellectual assets and intellectual liabilities", *Journal of Human Resource Costing & Accounting*, Vol. 7 No. 3, pp. 7-14.

Ahmed, M.U. and Kabir, M.H. (1995), "External financial reporting as envisaged in Companies Act, 1994 – a critical evaluation", *Dhaka University Journal of Business Studies*, Vol. 16 No. 1, pp. 185-208.

Ballow, J., Burgman, R., Roos, G. and Molnar, M. (2004), *A New Paradigm for Managing Shareholder Value*, Accenture Institute for High Performance Business, Wellesley, MA.

Bangladesh Bank (2007), *Financial Sector Reform in Bangladesh: Development and Achievement*, Annual Publication of Bangladesh Bank, avaiable at: www.bbbd.org/publication/ (accessed 28 March 2009).

Belal, A.R. (2001), "A study of corporate social disclosures in Bangladesh", *Managerial Auditing Journal*, Vol. 16 No. 5, pp. 274-89.

Brooking, A. (1996), *Intellectual Capital: Core Assets for the Third Millennium Enterprise*, International Thompson Business Press, London.

Edvinsson, L. and Sullivan, P. (1996), "Developing a model for managing intellectual capital", *European Management Journal*, Vol. 14 No. 4, pp. 56-64.

Elkington, J. (1999), *Cannibals with Forks: The Triple Bottom Line of 21st Century Business*, Capstone Press, Oxford.

Mathews, M.R. (1997), "Twenty-five years of social and environmental accounting research: is there a silver jubilee to celebrate?", *Accounting, Auditing & Accountability Journal*, Vol. 10 No. 4, pp. 481-531.

Appendix

Dhaka Bank Ltd	Trust Bank Ltd
AB Bank Ltd	Islamic Bank Bangladesh Ltd
Pubali Bank Ltd	Prime Bank Ltd
Uttara Bank Ltd	Mutual Trust Bank Ltd
Eastern Bank Ltd	Bank Asia
Brac Bank Ltd	Exim Bank Ltd
Dhaka Bank Ltd	IFIC Bank Ltd
Eastern Bank Ltd	Mercantile Bank Ltd
NCC Bank Ltd	South East Bank Ltd
Dutch Bangle Bank Ltd	Trust Banks Ltd

Table AI.
List of the banks in the sample

Corresponding author
Md Habib-Uz-Zaman Khan can be contacted at: sumkadu@yahoo.com