

Intellectual Capital Disclosures in Ghana: The Views of Stakeholders

Nicholas Asare^{1*} Jacob Sekyi Arku¹ Joseph Mensah Onumah²

1.Accounting Department, Methodist University College Ghana, Dansoman, Accra, Ghana

2.Accounting Department, University of Ghana, Legon, Accra, Ghana

* E-mail of the corresponding author: nasare@mucg.edu.gh

Abstract

The purpose of this paper is to assess the views of stakeholders on Intellectual Capital Disclosures (ICD) in the developing economy of Ghana. This study made use of the survey approach as the method to examine perceptions of stakeholders on ICD in Corporate Annual Reports (CARs). The data were analysed using descriptive and summary statistics. The results of the study show that decisions of stakeholders concerning firms, to some extent, do depend on Intellectual Capital (IC) information disclosed in CARs. The Human Capital (HC) disclosures are relatively more important than Structural Capital (SC) and Relational Capital (RC) disclosures. The growing importance of ICDs is partly attributable to the fact that there is the need for managements to communicate knowledge of management policies and strategies to stakeholders. There is indication that IC information is useful for decision-making purposes of Ghanaian stakeholders. The study concludes that there is little evidence to support the stakeholder and legitimacy theories in Ghanaian corporate environment. The conclusions drawn from this research were rooted on a relatively small sample. The inclusion of more stakeholders in the sample in future studies would help to pinpoint other issues that are of importance on ICD in Ghana. The study sought to raise awareness of Ghanaian stakeholders regarding ICDs. The paper contributes to the extant literature on ICD, as it provides evidence of stakeholders' perceptions on ICD in CARs.

Keywords: Intellectual Capital (IC), Intellectual Capital Disclosure (ICD), Stakeholders, Corporate Annual Reports (CARs).

1.0 Introduction

In this current era, issues of disclosures are speedily catching up with corporate stakeholders; and have attracted immense attention and publicity in the corporate world and academia. The current information world has accelerated the need for relevant and reliable information for decision making in business circles, the core of which information is usually financial and accounting information. Currently, the need for financial information of firms to include disclosures of various kinds of reports has heightened the relative importance of IC in the global corporate and economic environment. This has been triggered by the increased demand by stakeholders for relevant information, activated by the many frauds and scandals of the last decade, and suggested the need for there to be better rules and practices for financial information disclosure to improve trust in accounting (Oliveira *et al.*, 2006).

There is also an enhanced contribution by the service sector to the Gross Domestic Product (GDP) of developed and developing economies; thus revealing the global drift towards knowledge economy and the consequent importance of knowledge-based resources (Kansal and Singh, 2011). The expansions of the services sector, stronger competition resulting from globalisation and the emergence of new information technologies have accelerated the shift toward a knowledge-based and innovation-driven economy (Bismuth and Tojo, 2008).

Accounting for these knowledge-based resources, i.e. IC, is increasingly recognised to be one of the most fascinating and potentially far-reaching challenges facing the accountancy profession (Roslender and Fincham, 2004), and the efforts to create a global accounting standard by International Accounting Standards Board (IASB) may be partly understood as an endeavour to react to this issue (Braunstrom and Giuliani, 2009). The profession is thus diligently working to find appropriate means of incorporating these knowledge-based resources into existing standards which will eventually contribute to making the financial statements and attached reports (i.e. CARs) a true reflection of the value of the firm, making them more useful to stakeholders. The issue arises as to the relative importance of IC to the decisions of stakeholders, which has necessitated insightful research in the developed economies. However, in the extant literature from Sub-Saharan Africa, it is not very clear whether IC information is seen as important.

The major concern of ICD is to ensure that issues of intangible nature with regards to the resources of firms are articulated and presented fairly and adequately in appropriate reports especially the annual reports. This will generally help to satisfy the needs of the present sophisticated stakeholders who are demanding top-notch information for decision making. In the settings of Ghana there are no far-reaching regulations and guidelines that require firms to adhere to in disclosing IC information. Therefore, with the relatively voluntary nature of such disclosures one is motivated to assess the perceptions of stakeholders on the usefulness and possible mandatory inclusion of IC information in CARs in Ghana.

This paper is organized as follows: the next section provides a review of literature in the area along the headings of the concept of IC and its value to stakeholders. This is followed by details of the research method. Empirical results are presented and discussed in the subsequent section. The final section presents concluding remarks.

2.0 Literature Review and Theoretical Framework

2.1 The Concept of IC

The first time the concept of IC was utilized was in 1969, by John Kenneth Galbraith in a letter to Michael Kalecki (economist and writer) (Atalay and Anafarta, 2011; Hormiga *et al.*, 2010). Tom Stewart popularised the concept in 1991, when Fortune Magazine published his articles, for instance “Brainpower: How intellectual capital is becoming America’s most valuable asset” (Bontis, 1998; Sullivan, 1999). Stewart is noted to have focused his articles (as well as one of his books, ‘Intellectual Capital, the New Wealth of Organizations’) on how firms create value through their “brain power” i.e. IC (Sullivan, 1999). While various definitions of the concept have been used in the literature with time, there is still no standard definition of IC (Kaufmann and Schneider, 2004; Choong, 2008; An and Davey, 2010; Atalay and Anafarta, 2011; An *et al.*, 2011a).

An *et al.* (2011a), define the concept in their study as the knowledge-assets that can create value for firms as well as achieve and sustain a competitive edge for them; also seen as a non-monetary asset that can generate future economic values in firms (Saleh *et al.*, 2010). Such intellectual assets themselves, according to Bismuth and Tojo (2008), do not create value nor generate growth and development but need to be combined with other “factors of production”. Studies around the world have possibly contributed to the excitement of arriving at an all-encompassing definition of the concept. Nonetheless, examining the various definitions and the components, it is obvious that most of them refer to intangibles and other assets that have become relevant in the value-creation processes of firms in the current knowledge economy that are not fundamentally disclosed in the conventional financial statements.

The focus of IC is on the resources of organisations which are clearly relevant in decision making as to the wealth-creating ability of the firm; whilst ICD, on the other hand, is about achieving full disclosure of these intangibles, thereby guaranteeing fairness and transparency through CARs. Therefore the disclosure of IC is to ensure that the firm has steady control of its value-creation intangibles and to enhance their transparency as well as facilitate their effective and efficient management.

In this study, IC is categorized in accordance with Edvinsson and Sullivan’s (1996) classification: Organizational (Structural) Capital (OC or SC), Relational Capital (RC) and Human Capital (HC), which classification is used a lot in the literature. A definition of HC offered by Sonnier (2008) describes HC as the knowledge, skill, expertise/know-how, problem solving capacity, education, training, judgement, experience, abilities, and loyalty of the employees of the firm; represented as the collective capabilities of a company’s workforce to solve customer and operational problems (Phusavat *et al.*, 2011). Riahi-Belkaoui (2003, p. 217) also described SC as “the knowledge that belongs to the organization as a whole in terms of technologies, inventions, data, publications, strategy and culture, structures and systems, organizational routines and procedures”, while Hormiga *et al.* (2010) saw RC as the value generated by relationships not only with customers, suppliers or shareholders, but with all stakeholders, both internal and external.

Intellectual assets are not always separately identifiable, but tend to be complementary and can overlap significantly (Bismuth and Tojo, 2008). A clear relationship exists between SC and HC; SC deals with the mechanisms and structures of the organization that can help support employees, the HC, in their quest for optimum intellectual performance and therefore overall business performance (Bontis, 1998). A good linkage between the two in the organisation usually leads to value-creation for stakeholders. That is the reason an individual or employee, according to Bontis (1998), can have a high level of intellect, but if the organization has poor systems and procedures by which to track his or her actions, the overall IC will not reach its fullest potential. RC, as the name implies, brings the other two aspects of IC (i.e. HC and SC) together. Customarily, the firm in its quest to create value for its stakeholders can resort to developing its HC and SC. This will positively affect and develop the relations of the firm with stakeholders and eventually increase firm-value. Oftentimes HC is developed to satisfy the specific needs of stakeholders alongside improving the SC. Customer-service personnel provide good customer-service to clients/customers. Corporate managers, in order to avoid agency problems, also conscientiously strive to manage relationships with stakeholders, especially shareholders. Systems and procedures are from time to time enhanced to provide good services to stakeholders.

To Riahi-Belkaoui (2003), it may be inferred that only SC, which is owned by the firm, and is assumed not to be reproduced and shared, is the best approximation of IC. There is a limit to the extent at which a firm can claim ownership and control over HC and RC.

2.2 The Value of IC Information to Stakeholders

Empirical research consistently finds that ICD adds more insight to financial information (Vafaei *et al.*, 2011), but despite its importance, few enterprises, according to Guthrie and Petty (2000), appear to have adopted

a proactive stance in attempting to measure and externally report this type of information. Possibly traditional stakeholder-interests had been met from the traditional annual financial report (minus the IC). Perhaps to some stakeholders, a certain aspect of IC is not important and therefore might not agitate for its annual reportage. Ousama *et al.* (2011) found in their study significant differences between preparers and users in the perception of the concept's usefulness, meaning that various users and preparers have different ways of rating the relative importance of IC information disclosed in the annual reports. In the light of this, we play up the relative value of IC information to the following key stakeholders: the society, investors, competitors, workforce, managers, customers, suppliers, and government.

The **society** tends to talk about the competencies of its members, systems, procedures, technology and institutional arrangements that create value for it via organisations and individuals. Arguments can therefore be made to the extent that organisations should from time to time ensure that the society is updated on the growth and development of its HC and SC, on one side, and its relations with stakeholders, on the other. For instance, information on brain drain to society could enable it to consider taking measures to forestall it. Currently, societies in Ghana might even not be privy to the IC inherent in them, because organizations that are to report on them are not doing so precisely as a result of difficulties in identification, measurement and management.

Contemporary schools of thoughts have now begun to recognize the importance of nonfinancial factors (like ICs) in addition to financial measures for investment decision (Saleh *et al.*, 2010). Investment decisions will need essential information including IC information. Such information is highly demanded by shareholders (or investors) for decision making (An *et al.*, 2011). ICD, according to Bru'ggen *et al.* (2009), can help to increase the value-relevance of financial statements and can also help to eliminate difficulties in accurately assessing firm-value for resource allocation with financial statements or reports by *investors*. This makes capital market participants highly reliant on the firm for information about its IC (Singh and Van der Zahn, 2007). The IC information provides a good picture of the actual value and the kind of critical assets that enable the firm to create value in its chosen market. Bismuth and Tojo (2008) mention that investors need an overview of all value-drivers of the company to better assess the potential of the company and its ability to achieve sustainable results. Using empirical evidence, they argue that stock market valuations are influenced by the extent and type of information on IC that is publicly disclosed.

According to Whiting and Miller (2008) firms with high levels of IC may invariably include them in their annual accounts in order to satisfy the information demands of current and potential investors, hence maintaining or attracting valuable resources. Similarly, Riahi-Belkaoui (2005) suggests that investors may greatly benefit from knowledge of the extent to which the human assets of an organisation have increased or decreased during a given period. In addition, Bismuth and Tojo (2008) propose that although the pressure from investors for improved disclosure is at an early stage in many markets, it could become a driving force in pushing firms to reconsider calls for an increased disclosure of forward-looking information about their ICs

Competitors are almost always looking at how the firm operates and the kinds of assets that are facilitating the firm's operations to enable them develop their own strategies to compete effectively. The competitor also makes use of the company's annual reports, at least, to ascertain the financial performance and position of the company. It is not clear whether competitors in Ghana make use of the IC information in the annual reports, but it is obvious that the kind of IC assets controlled or owned by the company will help competitors in formulating their strategies, to either catch up or consolidate their position in the market.

The **workforce** or **employees** with diverse qualifications contribute significantly to the production process. They tend to benefit from on-the-job training and external training (e.g. short courses) usually sponsored by firms. This presupposes that organisations in one way or the other invest or contribute immensely to the growth and development of their human resources. The employees typically treasure the systems, processes and relations with customers and other stakeholders that facilitate their work and have become conventional in the affairs of the firm. All these attest to the critical nature of the IC of the firm. It can be inferred that employees would expect the firm to report on its IC to whet their appetite in working for the firm.

Managers, with or without knowledge about the concept of IC, make decisions which are underpinned by the value of the company's IC (Marr and Chatzkel, 2004). The ability to create economic value from IC is highly contingent on the management capabilities of firms and the implementation of appropriate business strategies; there is now significant empirical work to support the view that effective use of IC depends on the quality of management (Bismuth and Tojo, 2008). Managers are these days doing all they can to establish IC resources and ensure that they make use of it to guarantee that value is created for their firms. Managers are also becoming aware that reporting on their key assets, including the IC, could help attract investors and advance the basis for decision making of stakeholders. They also appreciate the fact that ICDs could influence management decision making, particularly in key business transactions. Nevertheless managers ought to streamline their disclosure policies and strategies well; as the ICD practice is not guided by standards. A reduction of management flexibility might result from extensive ICD (Bru'ggen *et al.*, 2009). At the same time, the information released by the company may lead to the compromise of sensitive strategic information that would

give unfair advantage to others (Bontis, 2002).

The relevance and quality of ICDs in the CARs to product-buying decisions is an issue for in-depth interrogation. **Customers** are vital in the affairs of a company's operations. They form the core stakeholder group in terms of supply of revenues to the firm. Clients/customers are perhaps seen as also one of the most sensitive stakeholders that firms always have to deal with. Consumers' knowledge about the IC of the firm sometimes influences their preference for products especially with the service-oriented products. Only by addressing the concerns of current customers through disclosure of IC can organisations succeed in creating value. This is because IC is now recognized as the pivotal driver behind value creation in many private and public sector organizations regardless of whether they have an industrial or service base (Lee *et al.*, 2007).

Suppliers are most of the time interested in establishing good business relationships with those firms or clients/customers they supply to. They tend to look beyond a one-off transaction with firms and look at how they can replicate sales to clients/customers. It is quite obvious that the clients/customers' organisational systems, processes, human competencies and relation between them and the suppliers in business circumstances foster quality of operations and more especially business transactions.

Government, usually acting as a regulator, will ensure that firms operate with certain calibre of employees and systems before granting accreditation and license to carry out certain businesses depending on the nature of the industry. For instance universities and banks are required to operate with employees of certain qualifications, competencies and experience. Government cannot customarily assess some of these issues from the traditional and formally required financial statements. And this usually calls for additional reports to governments when assessing these issues. Embedded in these reports are IC matters. Some institutions in one way or the other act as regulators in this regard sometimes under the ambience of government: Bank of Ghana (BOG), Institute of Chartered Accountants – Ghana (ICAG), Securities and Exchange Commission (SEC) and many others.

2.3 Theoretical Framework

The stakeholder and legitimacy theories provided the theoretical framework for this study. The choice was motivated by the fact that these theories underpin numerous discussions of a related nature in the literature. The researchers sought to find out the extent to which these theories explain ICD practices in Ghana.

The Stakeholder Theory

This theory tends to expand the traditional shareholder theories that focus on wealth maximization for shareholders and argues that organizations should attempt to meet multiple goals of a wide range of stakeholders rather than merely those of shareholders (An *et al.*, 2011). The stakeholder theory invariably seeks to provide a balance between the interests of diverse stakeholders in order to ensure that the interest of each stakeholder receives some degree of satisfaction (Abrams, 1951). The thrust of this theory is that stakeholders are important and that the management of a firm is expected to report to them on the resources (both tangible and intangible) of the organisation; how they have been utilized and how they will potentially create value in the future. An *et al.* (2011) clarified this, recounting the principal concepts of the theory, that the organization is a part of the broader social system in which it operates and should be positively accountable for various stakeholder-groups with a strategic perspective. On the other hand, Jensen (2001) criticized the stakeholder theory; that the theory assumes a single-valued objective as it considers gains that accrue to a firm's constituencies, suggesting that measurement of a firm's performance should not only be tied to the gains of its stakeholders. Is there evidence in support of the theory with the listed firms in Ghana?

The Legitimacy Theory

The idea of a social contract underpins this theory and asserts that organisations will react to community expectations and concerns and take actions to ensure that their activities are perceived as legitimate (Whiting and Miller, 2008; Guthrie *et al.*, 2004). The organization should conduct its operations and activities within the expectations and norms of the society at large. As a result, when an organisation adopts a legitimacy theory perspective, it would voluntarily report on its activities if management perceived that the particular activities were expected by the communities in which it operates (Guthrie *et al.*, 2004). And in fulfilling such obligations, one of the means is to communicate IC information through the annual reports.

Stakeholders are demanding and becoming interested in the disclosure of key information (e.g. IC information) by firms. This is because stakeholders are more likely to react negatively to the non-disclosure of important information that will facilitate their decision making process. A test of legitimacy theory in relation to ICD in a developing country could help determine whether the dynamics of the economy, as evident in firms in the country, facilitate management accountability in terms of disclosing information (e.g. IC) to the letter. None or little disclosure of IC in CARs perhaps attracts little or no concerns from stakeholders as the concept of social contract underlying this theory is perhaps belittled by these stakeholders. To what extent are managers of listed

firms in Ghana fulfilling the legitimacy theory as it applies to their businesses? Analyses of this issue can be done from the perspective of diverse stakeholders in Ghana.

3.0 Methodology

Of the three traditional research strategies (i.e. experiments, survey, and case study) stipulated by Robson (1993), this study made use of the survey method. By use of this method adequate data were collected about the sample from the study's population. The survey method, as indicated by Saunders *et al.*, (2007), in most cases allows one to collect a large amount of standardised data from a sizeable population in a highly economical way, allowing for easy comparison. Besides, a survey facilitates the collection of quantitative data which can be analysed using descriptive and inferential statistics. In the adoption of the survey method, the researchers did not overlook some of its demerits like: deliberate falsification or unconscious misrepresentation of answers by respondents; non-response by respondents; time consuming nature of data analysis even with the aid of a computer package and a limitation to the number of questions which a questionnaire, one of the most widely used data collection instruments within the survey strategy, can contain (Saunders *et al.*, 2007).

The population comprised various stakeholders (management, clients/customers, shareholders, regulatory bodies, stockbrokers and many others) of all firms listed on the Ghana Stock Exchange. The researchers concentrated on a selected sample. Judgement/Purposive sampling was the main sampling technique employed in the choice of the sample size. The researchers sought to prevent a situation where sampled stakeholders were not involved or interested in the usage of CARs. The method allowed the researchers to select cases that will best enable them to meet the study's objectives (Saunders *et al.*, 2007).

The questionnaire survey was expected to reveal how effective corporate executives are, in disclosing IC and explored their perceptions and that of other stakeholders about the value of ICD in CARs in Ghana. Particularly for the corporate executives, they engineer and prepare CARs. Two different sets of questionnaires were designed and administered to the respondents. A set (25 copies) was administered to the key corporate executives (management – specifically top level managers in accounting, finance, auditing). Another set of questionnaires (120) was administered to the other stakeholders (employees, shareholders, clients/customers, suppliers, stockbrokers and key officials of regulatory bodies). The number of questionnaires distributed to each stakeholder category depended on the ease with which such stakeholders were reached by the researchers.

The questionnaires were dominated by closed-ended (structured) questions but offered respondents the chance to suggest alternative answers or explain their answers. Some questions requested responses on a five-point Likert scale. Questionnaires were coded using generally accepted methods. The collected data were analysed and summarized in a readable and easily interpretable form using appropriate statistical techniques. Descriptive statistics were used to run the basic statistical measures such as the mean, median, and standard deviation. The mean is a measure of central tendency which provides an arithmetic average for the distribution of scores (Coolican, 1999). Inferential tests were used to infer whether differences or relationships between samples of data were significant, or whether they reflected real effect in populations (Coolican, 1999).

Cronbach's alpha was tested on the internal consistency of the questions, measuring Readership Pattern of Stakeholders, The Adequacy and Expansion of ICDs, The Objective of ICD, The Significance of IC Information and Materiality of IC Information in Decisions. An alpha of 0.7 and above is considered desirable by social scientists. Cronbach's alpha for Readership Pattern of Stakeholders was 0.86, The Adequacy and Expansion of ICDs was 0.74, The Objective of ICD was 0.71, The Significance of IC Information and Materiality of IC Information in Decision Making were 0.87 and 0.84 respectively. These indicate that all scales had internal consistency and were therefore reliable for use.

4.0 Analyses and Discussion of Findings

4.1 Management's Perception on Current ICD Practices

Twenty-five (25) questionnaires were distributed to corporate executives and fifteen (15) responded, a 60% response rate. A cumulative 93.33% of the corporate executives have appreciable experience in managerial positions. They have worked at managerial levels for more than five (5) years. By their experience they are expected to understand and best explain their firm's ICD practices and hence have supplied reliable and relevant responses.

Corporate executives were asked to indicate on a 5-point Likert scale their objectives of disclosing IC information in CARs. They agreed (i.e. mean 4.13), as shown in Table 1, that it is done to satisfy the information needs of diverse stakeholders and also to build corporate image and reputation. They however disagreed (i.e. mean 2.07) that the objective of such disclosures is to fulfil regulatory and legislative requirements. Also, their responses on reporting them as indicators of the financial or economic performance of the firm and soliciting the cooperation of stakeholders were uncertain (i.e. mean 2.87). From these findings one can infer that corporate managers think their practices are tailored to fulfil the information needs and build corporate image and perhaps to solicit cooperation of diverse stakeholders. However, their views indicate some

deficiency in their ability to use ICDs to meet the information needs of diverse stakeholders and harness good relationships with them.

Disclosing IC within a company's annual report remains largely voluntary. There are no comprehensive or far-reaching regulations and guidelines that require firms to disclose IC information in Ghana. The study attempted to find whether ICDs should be made a mandatory component of the CARs. From Table 1 the view of corporate executives is almost uncertain (i.e. mean 2.73) on this. Most of the corporate executives still cannot fathom how ICDs would be consolidated into the annual reports (especially in financial statements) since IC assets are mostly intangibles. They seem not to be sure with the cost and benefits of disclosing IC and do not want to commit themselves one way or the other. Nevertheless, they agreed (i.e. mean 3.80) that guidelines on the disclosure of IC in CARs should be provided by regulatory bodies to ensure uniformity in reportage. This, they opined, will help improve corporate reporting.

Having agreed that guidelines on the disclosure of IC in CARs should be provided by regulatory bodies, the executives (Table 1) pinpointed Institute of Chartered Accountants – Ghana (ICAG) (mean 3.92) and International Accounting Standards Board (IASB) (mean 4.23) to be directly in charge of setting the standards to guide the disclosures. They disagreed that Bank of Ghana (BOG) (mean 2.00) and Ghana Stock Exchange (GSE) (mean 2.08) could issue such standards and were uncertain about the role of Securities and Exchange Commission (SEC) (mean 2.92) in this matter. Corporate managers are therefore seen to want accounting regulatory bodies to be in charge of issuing standards to guide ICD, which is quite not surprising as these bodies are seen as the most appropriate bodies to oversee such an initiative as its relates to corporate performance. Ironically, GSE and SEC have some guidelines on corporate governance disclosures that have some elements of IC.

Table 1: Objectives of ICDs; Mandatory Disclosures of IC and the Need for ICD Guidelines; Regulatory Bodies to Provide Guidelines on ICD

Objective	Mean	Std. Dev.	Min.	Max.
To report them as indicators of the financial or economic performance of the firm	3.20	1.17	1	4
To satisfy the information needs of diverse stakeholders	4.13	0.72	2	5
To fulfil regulatory and legislative requirements	2.07	1.12	1	4
To solicit the cooperation of stakeholders	2.87	0.50	2	4
To build corporate image and reputation	3.93	1.12	2	5
Note: (1) = Strongly Disagree (2) = Disagree (3) = Uncertain (4) = Agree (5) = Strongly Agree				
Subject	Mean	Std. Dev.	Min.	Max.
ICDs should be made a mandatory component of the corporate annual report	2.73	1.00	1	4
Guidelines on the disclosure of IC in corporate annual reports should be provided by regulatory bodies	3.80	0.98	2	5
Note: (1) = Strongly Disagree (2) = Disagree (3) = Uncertain (4) = Agree (5) = Strongly Agree				
Regulatory Body	Mean	Std. Dev.	Min.	Max.
ICAG	3.67	1.01	2	5
SEC	2.80	0.91	1	4
BOG	2.00	0.73	1	3
GSE	2.07	0.57	1	3
IASB	4.33	0.87	2	5
Note: (1) = Strongly Disagree (2) = Disagree (3) = Uncertain (4) = Agree (5) = Strongly Agree				

Source: Field Work and Authors' Computations, 2012

In Table 2, accounting practice (mean 3.80) was agreed to as influencing the ICD practices of a firm. Corporate executives invariably agreed that IFRS influences their ICD practices. They were uncertain on ownership structure (mean 2.87) and statutory and legislative requirements (mean 2.67). Implicitly, they are claiming that BOG regulations and other legislatives like the Ghana's Company's Code 1963 (Act 179) and SEC regulations may have insignificant influences on their ICDs. These results show that ICD practice is mostly viewed as an issue of financial reporting. This is quite consistent with their view above that accounting regulatory bodies should endeavour to issue standards and guidelines on ICD in CARs.

Corporate executives indicated (Table 2) that they always disclose their IC information in the CAR (mean 2.80) and at their websites (mean 2.53). They sometimes disclose the firms' IC information via brochures/flyers (mean 2.07), radio and/or TV broadcast (mean 2.00) and press notices/releases (mean 1.93). This signifies the importance of the CAR as a medium of disclosing IC and the quest of corporate managers of listed firms to legitimize their actions through the CARs. This is quite consistent with findings that CARs are highly reliable and often used by managers of companies to signal what is important (Guthrie and Petty, 2000; April et al., 2003; Guthrie et.al. 2004). The annual report is an important document because it is the principal means for corporate communication of activities and intentions to stakeholders (Holland and Boon Foo, 2003).

Table 2: Factors that Influence ICD Practices; Media for the Disclosure of IC; Increasing ICDs: Stance of Corporate Executives

Factor	Mean	Std. Dev.	Min.	Max.
Accounting Practice	3.80	0.83	2	5
Statutory and Legislative Requirements	2.67	0.47	2	3
Ownership Structure	2.87	0.72	2	4

Note: (1) = Strongly Disagree (2) = Disagree (3) = Uncertain (4) = Agree (5) = Strongly Agree

Medium	Mean	Std. Dev.	Min.	Max.
Corporate Annual Report	2.80	0.40	2	3
Radio and/or TV Broadcast	2.00	0.63	1	3
Press Notices/Releases	1.93	0.68	1	3
Company Websites	2.53	0.62	1	3
Company Brochures/Flyers	2.07	0.68	1	3

Note: (1) =Not at all (2) =Sometimes (3) =Always

Question	Number Responding 'Yes'	Total Number of Respondents
Do you think the content of IC information in the corporate annual report should be expanded in line with stakeholder demands for information?	6	15
Will you voluntarily increase the content of IC disclosure in your company's annual report?	9	15
Do you think your company provides adequate IC disclosures that satisfy stakeholder information needs?	11	15

Source: Field Work and Authors' Computations, 2012

The study also considered the view of corporate executives on the sufficiency of IC information in CARs. A substantial number of the executives (73.33%, in Table 2) stressed that they are convinced that they are disclosing adequate IC to satisfy the needs of stakeholders.

On the issue of current stakeholder demands for more information, when corporate executives were requested to indicate whether the content of ICDs in the annual reports should be expanded in line with those demands, 40% of them answered in the affirmative, indicating the relative unwillingness of corporate managers in increasing the content of ICDs in the annual reports in line with demands of stakeholders. This fairly attests to the suggestion that corporate managers are not too enthusiastic to increase ICDs as the initiatives in IC intensify in Ghana. Findings by Khan and Ali (2010) also indicated that corporate managers are not currently enthusiastic about the necessity for such voluntary disclosure activity.

4.2 Other Stakeholders' Perspectives

This section considers the views of a range of other stakeholders on ICD practices with particular reference to CAR. The researchers made contact with a total of one hundred and twenty (120) stakeholders, out of which ninety-two (92) responded. In all, the survey here achieved a response rate of 76.67%, with the customer category of stakeholders achieving the highest response rate of almost 90%.

The researchers sought to assess how often the respondents read the CAR of the listed firms (Table 3). Both regulators and five (5) stockbrokers indicated that they always read the CAR, an expected position as these respondents are required to read such reports in their line of work. Twenty two (22) of the twenty six (26) customer respondents indicated that they sometimes read CARs, showing the apathy of customers concerning such corporate reports. Overall, 61% of all other stakeholder-respondents read the annual report always. The CAR is produced regularly, the firm has a substantial editorial input into it and it is widely distributed and read (Asare et al, 2013). Stakeholders sampled consider such reports as an important document which ought to be read periodically for essential corporate information (see Holland and Boon Foo, 2003).

Key pieces of information for stakeholders are usually disclosed through various media, each medium having a potential of reaching a number of stakeholders. In that regard the researchers sought to examine the relevance of the CARs as a source of IC information. Stakeholders as disclosed in Table 3 indicated that CARs always provide them with some IC information. These stakeholders state that they are usually not up to their expectations. They state further that radio and/or TV broadcast, press notices/releases, company websites and brochures/flyers sometimes provide them with information on IC.

The stakeholder theory advocates that the information needs of stakeholders should be satisfied by management through voluntary and mandatory disclosures. In ascertaining the adequacy of ICDs in CAR, respondents were requested to indicate whether the information provided is adequate compared with their requirements. 35% of them responded in the affirmative; a majority was of the view that ICDs in the CARs are not satisfactory. This is contrary to the view expressed by management as discussed above. It is also not

supportive of the findings of Asare et. al. (2013), that the ICD level in CARs in Ghana is quite high (see also Ousama et al., 2011).

A further enquiry from respondents was whether the current level of disclosure of the categories/classes of IC should be increased or decreased. Table 3 revealed that 77% of all respondents indicated that SC reportage in the CARs should be increased. 74% and 61% of all respondents were of the view that HC and RC respectively should have more disclosures in the CAR. Therefore, a majority of the stakeholders generally want ICDs to be increased in the CARs even though analysis above indicates the relative unwillingness of corporate executives in increasing the content of ICDs in the CARs (See Khan and Ali, 2010). In the matter of disclosure of IC in Ghana, the evidence in support of the stakeholder theory appears to be mixed.

Table 3: Stakeholders' Readership of CARs; Sources of ICDs: Perspective of Other Stakeholders; Stakeholders' View on Increasing (I)/Decreasing (D) the Level of IC

Stakeholder Category	Sometimes	Always	Total Number of Responses			
Customers	22	4	26			
Employees	7	18	25			
Regulators	0	2	2			
Shareholders	4	20	24			
Stockbrokers	0	5	5			
Suppliers	3	7	10			
Total Respondents	36	56	92			

All Respondents	Mean	SD.	Min.	Max.
Corporate Annual Report	2.64	0.64	1	3
Radio and/or TV broadcast	2.05	0.71	1	3
Press notices/ releases	1.99	0.54	1	3
Company websites	2.00	0.68	1	3
Company brochures/ flyers	1.86	0.65	1	3
Company brochures/ flyers	1.30	0.46	1	2

Note: (1) =Not at all (2) =Sometimes (3) =Always

Stakeholder Category	HC				SC				RC				Total Respondents for a Category
	I	%	D	%	I	%	D	%	I	%	D	%	
Customers	20	77	6	23	23	88	3	12	21	81	5	19	26
Employees	21	84	4	16	15	60	10	40	5	20	20	80	25
Regulators	1	50	1	50	2	100	-	-	2	100	-	-	2
Shareholders	18	75	6	25	18	75	6	25	16	67	8	33	24
Stockbrokers	4	80	1	20	5	100	-	-	5	100	-	-	5
Suppliers	4	40	6	60	8	80	2	20	7	70	3	30	10
Total	68	74	24	26	71	77	21	23	56	61	36	39	92

Source: Field Work and Authors' Computations, 2012

It is known that various stakeholders have diverse goals of pursuing IC information in the CARs. Generally respondents indicated that a key objective of looking for or expecting to see IC information in CARs (Table 4) is 'to know the costs associated with value creation activities of the firm'. They also agreed that: 'it is an indicator of the financial or economic performance of the firm', 'it influences the decision to buy or not to buy the company's stocks (shares/bonds)', 'it enables one to know the technological development the firm has engaged in and to know the future stability and vulnerability of the firm for job security'. On whether it influences the decision to buy or not to buy the company's products or it helps figure out the current and potential risk facing the firm, the respondents disagreed. As should be expected, the employee category of stakeholders agreed, showing the highest score, that their demand for IC information is backed by the objective to know the future stability and vulnerability of the firm for job security.

Table 4: Objective of ICDs: Perspective of Other Stakeholders; Materiality of IC Information to Stakeholders

	Mean	Std. Dev.	Min.	Max.
All Respondents				
It is an indicator of the financial or economic performance of the firm	3.98	0.96	1	5
It influences the decision to buy or not to buy the company's stocks (shares/ bonds)	3.72	0.90	2	5
It influences the decision to buy or not to buy the Company's products	2.45	1.31	1	5
To help figure out the current & potential risk facing the firm	2.39	1.24	1	5
To assess the reliability and relevance of the business of the firm in the short & long term	3.52	1.01	2	5
To know the technological development the firm has engaged in	3.75	0.84	2	5
To know the cost associated with value creation activities of the firm	4.13	0.74	3	5
To know the future stability & vulnerability of the firm for job security	3.68	1.10	1	5

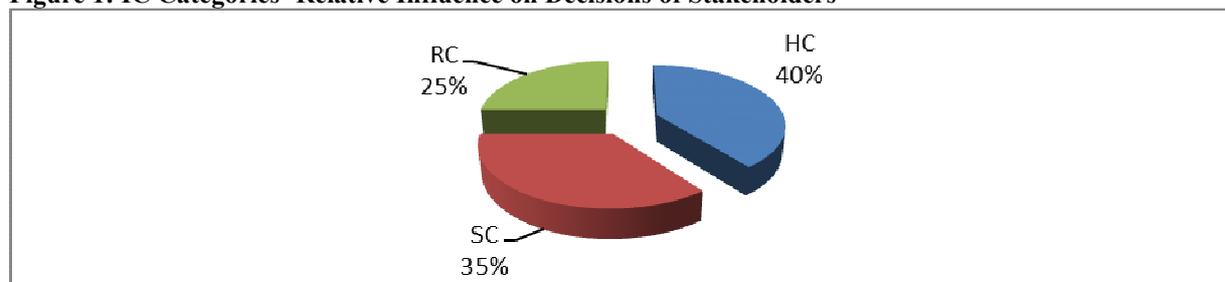
Note: (1) = Strongly Disagree (2) = Disagree (3) = Uncertain (4) = Agree (5) = Strongly Agree

Stakeholder Category	Number Responding Yes		Total Number of Responses
		%	
Customers	9	34.62	26
Employees	17	68.00	25
Regulators	1	50.00	2
Shareholders	16	66.67	24
Stockbrokers	3	60.00	5
Suppliers	2	20.00	10
Total Respondents	48	52.17	92

Source: Field Work and Authors' Computations, 2012

The study further considered the value of IC information to the stakeholders and the extent with which each stakeholder's interest is met in terms of the IC disclosed, especially in the CAR. The content of ICDs and the quality of the significance or necessity of such disclosures were also appraised in this study. The results as represented in Figure 1 show that 40% respondents consider HC as the most important when it comes to the use of IC information. The disclosure of HC is relatively more important to most stakeholders than SC and RC. On the whole, the importance of ICDs to stakeholders cannot be overemphasized. Studies in the literature (e.g. Ousama *et al.*, 2011; Singh *et al.*, 2007) have all lent credence to the fact that IC information is important/ useful to the decisions of various stakeholders. Generally, the stakeholders indicated that when it comes to taking decisions concerning a listed firm the IC information in annual reports contributes materially to their decisions.

Figure 1: IC Categories' Relative Influence on Decisions of Stakeholders



Source: Field Work and Authors' Computations, 2012

A supplementary question sought to educe from the stakeholders whether ICR should be made a mandatory component of CAR or not. In Table 5, all respondents (mean 3.45) were quite uncertain. Regulators disagreed (Mean 2.5) that it should be made mandatory. Shareholders, customers and stockbrokers with respective means of 3.88, 3.65 and 3.60 agreed that it should be made a mandatory component of the annual report. Closely linked to this question was a question on whether regulatory bodies should provide guidelines on the disclosure of IC in CARs. Again, all respondents agreed that guidelines on the disclosure of IC should be provided by regulatory bodies.

Table 5: Mandatory Disclosure and Guidelines on ICD.

	Mean	Std. Dev.	Min.	Max.
All Respondents				
• ICDs should be made a mandatory component of the corporate annual report	3.45	1.19	1	5
• Guidelines on the disclosure of IC in corporate annual reports should be provided by regulatory bodies	3.93	0.92	2	5
Customers				
• ICDs should be made a mandatory component of the corporate annual report	3.65	1.21	1	5
• Guidelines on the disclosure of IC in corporate annual reports should be provided by regulatory bodies	3.73	0.94	2	5
Employees				
• ICDs should be made a mandatory component of the corporate annual report	3.00	1.36	1	5
• Guidelines on the disclosure of IC in corporate annual reports should be provided by regulatory bodies	3.84	0.88	2	5
Regulators				
• ICDs should be made a mandatory component of the corporate annual report	2.50	0.50	2	3
• Guidelines on the disclosure of IC in corporate annual reports should be provided by regulatory bodies	3.50	0.50	3	4
Shareholders				
• ICDs should be made a mandatory component of the corporate annual report	3.88	1.05	1	5
• Guidelines on the disclosure of IC in corporate annual reports should be provided by regulatory bodies	4.25	0.88	2	5
Stockbrokers				
• ICDs should be made a mandatory component of the corporate annual report	3.60	0.49	3	4
• Guidelines on the disclosure of IC in corporate annual reports should be provided by regulatory bodies	4.20	0.75	3	5
Suppliers				
• ICDs should be made a mandatory component of the corporate annual report	3.10	0.70	2	4
• Guidelines on the disclosure of IC in corporate annual reports should be provided by regulatory bodies	3.90	0.94	2	5
Note: (1) = Strongly Disagree (2) = Disagree (3) = Uncertain (4) = Agree (5) = Strongly Agree				

Source: Field Work and Authors' Computations, 2012

5.0 Conclusion

According to the stakeholder and legitimacy theories, stakeholders will continue to demand for enhanced information on IC over time and firms will continually seek to observe and fulfil the bounds and norms of their respective societies in order to be perceived as good corporate citizens (Yusoff and Lim, 2011). These behaviours will result in improved disclosure by firms over time. Coincidentally, ICD practices by listed firms, according to the corporate managers, were geared to satisfy the information needs of diverse stakeholders and also to build corporate image and reputation. Corporate managers indicated that, they are effective in disclosing their IC information in the CAR and that the information provided is adequate. However, they exhibited some level of unwillingness to voluntarily increase the content of such information in CAR. Accounting practice, as required by IFRS and other standards and regulations, explains the posture by management when it comes to quantitative and qualitative ICDs in CAR. Other stakeholders are relatively satisfied with IC information in CAR even though they are advocating for an increase in such ICDs. This, perhaps, is because in Ghana stakeholders other than management, are not really sophisticated in their demands on management to account and are not very familiar with the reportage of IC information. This means that managers of listed firms are not under pressure to increase the disclosure of ICs as partly advocated by stakeholder and legitimacy theories. To a large extent, the stakeholders' demands for IC information in CAR are backed by the following reasons: *to know the costs associated with value-creation activities of the firm; to serve as an indicator of the financial or economic performance of the firm; influences the decision to buy or not to buy the company's stocks (shares bonds); to know the technological development the firm has engaged in; and to know the future stability and vulnerability of the firm for job security.*

The researchers are convinced that decisions of stakeholders of listed firms, to some extent, do depend on IC information disclosed in CARs. Of all ICDs, stakeholders saw HC as most influential in their decisions. Stakeholders were quite interested in adequate and necessary reportage of IC information in CARs to permit informed judgement and decision making.

The study concludes that there is little evidence to support the stakeholder and legitimacy theories in Ghana. In any case, the growing importance of ICDs is partly attributable to the fact that there is the need for management to communicate knowledge about management policies and strategies to stakeholders. The researchers agree that external auditing, IFRS and internal auditing should ensure that reliable and relevant IC information is disclosed in CARs. The study again concludes that both corporate executives, as preparers, and other stakeholders are quite indecisive on whether ICDs should be made a mandatory component of the CAR, even though they believe that guidelines on the disclosure of IC in CARs should be provided by regulatory bodies such as IASB and ICAG. The study confirms the findings of Ousama *et al.* (2011) that there are significant differences between preparers and users in the perception of the usefulness of IC; meaning that various users and preparers have different ways of rating the relative importance of IC information disclosed in the annual reports.

Based on the analysis of the findings of this study, the following recommendations are made for future studies and actions of various stakeholders: Stakeholders consider ICDs as valuable ingredients to their decisions. Therefore, firms should voluntarily increase the content, in terms of quantity and quality, of ICDs in CARs and

other equally important reports. In that regard corporate management and other stakeholders like auditors should ensure that firms are consistent in their ICD practices by instituting mechanisms to ensure the provision of relevant and reliable IC information. Stakeholders should seek to expand their knowledge about IC information in corporate reports. They should be encouraged to incorporate IC information in their decisions since it will help them to make good decisions with regards to their dealings with firms.

Researchers interested in further studies in ICR should take note of the following: This study was primarily exploratory and so concentrated on selected stakeholder-groups of listed firms. Other studies could be undertaken to appraise the views of wider stakeholders. The study analysed perceptions of stakeholders on ICDs from the CARs of firms. Further research could be done to ascertain the degree at which such disclosures are used in decision taking. Further studies could also be made into the extent to which firms would voluntarily comply with general ICD guidelines.

References

- Abrams, F. W. (1951). Management's Responsibilities in a Complex World. *Harvard Business Review*, 29, 54-64.
- An, Y., & Davey, H., (2010). Intellectual Capital Disclosure in Chinese (Mainland) Companies. *Journal of Intellectual Capital*, 11(3), 326-347.
- An, Y., Davey, H., & Eggleton, I. R.C, (2011a). Towards a Comprehensive Theoretical Framework for Voluntary IC Disclosure. *Journal of Intellectual Capital*, 12(4).
- An, Y., Davey, H., & Eggleton, I.R.C (2011b). The Effects of Industry Type, Company Size and Performance on Chinese Companies' IC Disclosure: A Research Note. *AAFBJ*, 5(3), 107- 116.
- Asare N, Onumah J.M & Simpson S.N.Y (2013). Exploring the Disclosure of Intellectual Capital in Ghana: Evidence from Listed Companies. *Journal of Accounting and Marketing* 2:107. doi: 10.4172/2168-9601.1000107.
- Atalay M., & Anafarta., N., (2011). Enhancing Innovation Through Intellectual Capital: A Theoretical Overview. *Journal of Modern Accounting and Auditing*, 7(2), 202-210.
- Bismuth., A & Tojo Y., (2008). Creating Value from Intellectual Assets. *Journal of Intellectual Capital*, 9(2), 228-245.
- Bontis N., (2002). Intellectual Capital Disclosure in Canadian Corporations. *Journal of Human Resource Costing & Accounting*.
- Bontis, N., (1998). Intellectual Capital: An Exploratory Study that Develops Measures and Models. *Management Decision*, 36(2), 63-76.
- Braunstroöm, D. & Giuliani, M. (2009). Accounting for intellectual Capital: A Comparative Analysis. *The journal of information and knowledge management systems*, 39(1), 68-79.
- Brußgen, A., Vergauwen, P., & Dao, M., (2009). Determinants of Intellectual Capital Disclosure: Evidence from Australia. *Management Decision*, 47(2), 233-245.
- Choong, K. K., (2008). Intellectual Capital: Definitions, Categorization and Reporting Models. *Journal of Intellectual Capital*, 9(4), 609-638.
- Coolican, H. 1999. *Research Methods and Statistics in Psychology*. Hodder and Stoughton, London.
- Edvinsson, L & Sullivan, P. (1996). Developing a Model for Managing Intellectual Capital. *European Management Journal*, 14(4), 356-364.
- Guthrie, J. & Petty, R., (2000a). Intellectual Capital: Australian Annual Reporting Practices. *Journal of Intellectual Capital*, 1(3), 241-251.
- Guthrie, J., & Petty, R., (2000b). Intellectual Capital Literature Review Measurement, Reporting and Management. *Journal of Intellectual Capital*, 1(2), 155-176.
- Guthrie, J., Petty, R., Yongvanich, K. & Ricceri, F., (2004). Using Content Analysis as a Research Method to Inquire into Intellectual Capital Reporting. *Journal of Intellectual Capital*, 5(2), 282-293.
- Hormiga E, Batista-Canino R. M & Sánchez-Medina, A (2010). The Role of Intellectual Capital in the Success of New Ventures. *Int Entrep Manag J*, DOI 10.1007/s11365-010-0139.
- Jensen, M. (2001): "Value Maximization, Stakeholders Theory and the Corporate Objective Function", *Journal of Applied Corporate Finance*, Fall 2001
- Kansal, M. & Singh, S., (2011). Voluntary Disclosures of Intellectual Capital: An Empirical Analysis. *Journal of Intellectual Capital*, 12(2), 301-318.
- Kaufmann, L. & Schneider, Y. (2004). Intangibles: A Synthesis of Current Research. *Journal of Intellectual Capital*, 5(3), 366-387.
- Khan H., & Ali M. M., (2010). An Empirical Investigation and Users' Perceptions on Intellectual Capital Reporting in Banks; Evidence from Bangladesh. *Journal of Human Resource Costing & Accounting*, 14(1), 48-69.
- Lee A., Neilson J., Tower, G., & Van der Zahn J-L.W. M, (2007). Is Communicating Intellectual Capital

- Information via the Internet Viable? Case of Australian Private and Public Hospitals. *Journal of Human Resource Costing & Accounting*, 11(1), 53-78.
- Marr, B. (2007). What is Intellectual Capital?. in Joia, L.A. (Ed.), *Strategies for Information Technology and Intellectual Capital*, (1-9). Idea Group Publishing, Hershey, PA.
- Marr, B., & Chatzkel, J. (2004). Intellectual Capital at the Crossroads: Managing, Measuring, and Reporting of IC. *Journal of Intellectual Capital*, 5(2) 224-229.
- Oliveira, L., Rodrigues, L.L., & Craig, R., (2006). Firm-Specific Determinants Of Intangibles Reporting: Evidence from the Portuguese Stock Market. *Journal of Human Resource Costing & Accounting*, 10(1), 11-33.
- Ousama, A.A., Fatima, A.H. & Majdi, A.R.H, (2011). Usefulness of Intellectual Capital Information: Preparers' and Users' Views. *Journal of Intellectual Capital*, 12(3), 430-445.
- Phusavat, K., Comepa, N., Sitko-Lutek, A., & Ooi, K., (2011). Interrelationships Between Intellectual Capital and Performance, Empirical Examination. *Industrial Management & Data Systems*, 111(6), 810-829.
- Riahi-Belkaoui, A., (2003). Intellectual Capital and Firm Performance of US Multinational Firms; A Study of the Resource-Based and Stakeholder Views. *Journal of Intellectual Capital*, 4(2), 215-226.
- Riahi-Belkaoui, A., (2005). *Accounting Theory*. 4th Edition, Thomson.
- Robson, C. (2002). *Real World Research*. 2nd Edition, Oxford, Blackwell.
- Roslender, R. & Fincham, R. (2004). Intellectual Capital Accounting in the UK; A Field Study Perspective. *Accounting, Auditing & Accountability Journal*, 17(2), 178-209.
- Saunders, M., Lewis P., & Thornhill, A., (2007). *Research Methods for Business Students*. 4th Edition, Pearson Education Ltd, London.
- Saleh N.M., Hassan, M.S, Jaffar, R., & Shukor, Z.A., (2010). Intellectual Capital Disclosure Quality: Lessons from Selected Scandinavian Countries. *The IUP Journal of Knowledge Management*, 8(4), 40- 60.
- Singh, I., & Van der Zahn, J.-L.W. M., (2007). Does Intellectual Capital Disclosure Reduce an IPO's Cost of Capital? The Case of Underpricing. *Journal of Intellectual Capital*, 8(3), 494-516.
- Sonnier, B. M, (2008). Intellectual Capital Disclosure: High-Tech Versus Traditional Sector Companies. *Journal of Intellectual Capital*, 9(4), 705-722.
- Stewart, T. A. (1997). *Intellectual Capital: The New Wealth of Organizations*. Doubleday Dell Publishing Group, Inc., New York.
- Sullivan, P.H., (1999). Profiting from Intellectual Capital. *Journal of Knowledge Management*, 3(2), 132-142.
- Sveiby, K. E. (1997). Intangible Assets Monitor. *Journal of Human Resources Costing and Accounting*, 2(1), 73-97.
- Vafaei, A., Taylor, D., & Ahmed, K. (2011). The Value Relevance of Intellectual Capital Disclosures. *Journal of Intellectual Capital*, 12(3), 407-429.
- Vandemaële, S.N., Vergauwen, P.G.M.C., & Smits, A.J. (2005). Intellectual Capital Disclosure in the Netherlands, Sweden and the UK: A Longitudinal and Comparative Study. *Journal of Intellectual Capital*, 6(3), 417-426.
- Vergauwen, P.G.M.C., & Alem, F.J.C., (2005). Annual Report IC Disclosures in the Netherlands, France and Germany. *Journal of Intellectual Capital*, 6(1), 89-104.
- Vergauwen, P., Bollen, L., & Oirbans, E., (2007). Intellectual Capital Disclosure and Intangible Value Drivers: An Empirical Study. *Management Decision*, 45(7), 1163-1180.
- Vilanova, M., Lozano, J.M., & Arenas, D., (2009). Exploring the Nature of the Relationship Between CSR and Competitiveness. *Journal of Business Ethics*, 87, 57-69.
- Wagiciengo, M.M., & Belal, A.R., (2012). Intellectual Capital Disclosures by South African Companies: A Longitudinal Investigation. *Advances in Accounting, Incorporating Advances in International Accounting*, doi:10.1016/j.adiac.
- Wensley, A. K.P, Cegarra-Navarro, J. G., Cepeda-Carrión, G., & Milla'n, A. G. L., (2011). How Entrepreneurial Actions Transform Customer Capital Through Time Exploring and Exploiting Knowledge in an Open-Mindedness Context. *International Journal of Manpower*, 32(1), 132-150.
- Wernerfelt, B. (1984). A Resource-Based View of the Firm. *Strategic Management Journal*, 5(2), 171-180.
- White, G., Lee, A., Yuningsih, Y., Nielsen, C., & Bukh, P.K.,(2010). The Nature and Extent of Voluntary Intellectual Capital Disclosures by Australian and UK Biotechnology Companies. *Journal of Intellectual Capital*, 11(4), 519-536.
- White, G., Lee, A., & Tower, G., (2007). Drivers of Voluntary Intellectual Capital Disclosure in Listed Biotechnology Companies. *Journal of Intellectual Capital*, 8(3), 517-537.
- Whiting, R. H., & Miller, J. C., (2008). Voluntary Disclosure of Intellectual Capital in New Zealand Annual Reports and the "Hidden Value. *Journal of Human Resource Costing & Accounting*, 12 (1), 26-50.
- Yusoff, W.F.W., & Lim, W., (2011). IC Reporting in Traditional Sectors of Malaysian Public Listed Firms. *Journal of Modern Accounting and Auditing*, 7(9), 966-973.

Zahn, J-L.W. M., Singh, I., & Heniro, J., (2007). IC Disclosure is there an Association Between Intellectual Capital Disclosure, Under-pricing and Long-Run Performance?. *Journal of Human Resource Costing & Accounting*, 11(3), 178-213.