

Intellectual Capital Disclosure and Corporate Performance: Evidence from Research Literature

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The contribution of intangible assets in firms profit is seen to increase in the recent past especially in knowledge intensive industries. However, there is a general lack of visibility of this phenomenon to the external stakeholders of the firm, more so in developing and emerging economies. Most firms in developed world resort to voluntary measurement and disclosure of intellectual capital (IC) with an objective to reduce the information asymmetry which in turn is expected to influence the performance and market value of the firm. Several studies in India and across globe have focussed on the relationship between IC disclosures (ICD) and its impact on corporate performance. This paper attempts a comprehensive review of such studies from India and abroad and evaluates whether there actually exists any relationship between ICD and financial indicators of corporate performance. A strong recommendation to the corporate in India for voluntary disclosure comes up as a result of the analysis. Focused research studies on Indian firms to analyse the impact and benefits of IC disclosure could be one significant factor that may increase

Introduction

Intangible assets of the firm are seen to gain a large and increasing share in the recent decade. Extensive research has also shown significant contribution of intangibles towards profits has. The very definition of intangibles is subject to various interpretations depending on the nature of operations and specific industry in consideration. Normally, the competencies and skills of workforce, the intellectual property owned by firm, value of its brand, goodwill etc form an integral part of traditional classification of intangibles. Though, there is growing importance of intangibles, the very nature of the intangible assets makes it a challenge for standardised measurement and reporting. Moreover, the current accounting standards don't make it mandatory to report the intellectual capital in the annual report of the firm; these factors together contribute to the lack of general visibility of the contribution of intangibles towards value of the firm to its internal and external stakeholders.

"What is not measured is not reported", the first step towards bringing in visibility of value of intangibles to the external stakeholders is to have a bordered definition and systematic measurement of all the intangibles within the firm. The next step would be to decide on a reporting format so as to disclose the intangibles to the stakeholders at regular intervals.

A broader representation of intangibles would be through Intellectual capital; the term Intellectual Capital (IC) gained prominence in the last two decades and mainly stood to

represent the intangibles within the firm, since then it has been defined and classified in several different ways. There is no generally accepted definition of Intellectual capital; broadly IC as "any creation which emerges from the human mind". Edvinsson defined it as "Knowledge that can be converted to value" (Edvinsson 1997).

However, Karl-Erik Sveiby first proposed a classification for Intellectual Capital into three broad areas of intangibles namely Human capital, Structural capital and Customer capital (Sveiby, 1989); a classification that was later modified and extended by replacing customer capital by relational capital by Dr. Nick Bontis (Bontis, 1991).

Human capital refers to the skills, competencies and knowledge of the employees within the organization that enable creation of more value for the firm. Relational capital is what customers and suppliers of the organization bring in, networking, contracts and agreements are usually built on this. The Structural/organizational capital includes the knowledge and information infrastructure and intellectual property of the firm that supports the human capital to function in furthering the vision laid down by the top-management.

The classification offered by the International Federation of Accountants (IFAC) is given below in Table 1

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Table 1 : Classification of Intellectual Capital

Human Capital	Relational (Customer) Capital
Know-how	Brands
Education	Customers
Vocational qualification	Customer loyalty
Work related knowledge	Company names
Occupational assessments	Backlog orders
Work related competencies	Distribution channels
Entrepreneurial élan, innovativeness, pro active and reactive abilities, changeability's	Business collaborations
	Licensing agreements
	Favourable contracts
	Franchising agreements
Organizational (Structural) Capital	Infrastructure assets
Intellectual Property	Management philosophy
Patents	Corporate culture
Copyrights	Management processes
Design rights	Information systems
Trade secrets	Networking systems
Trademarks	Financial relations
Service marks	

Source: IFAC (1998)

This paper attempts to explore the literature which measured the relationship between IC reporting and corporate performance/value creation. The aim is to build an argument for those firms that provide a ready explanation for not measuring and reporting IC that it involves investment that does not provide any tangible/visible returns and benefits.

Why is IC Measuring Significant?

Over years, there have been several researchers who have explored different measures to account and report Intellectual capital, there have been models that have emerged from such studies and many of them have been utilized by the firms across various countries. Some of the tools that have been commonly used for measurement are Skandia navigator, IC-Index, Intangible assets monitor, Market Value added and Economic Value Added (MVA & EVA), Market to book ratio and Tobins Q. The elaboration of each of these tools is beyond the scope of this paper.

Through the systematic literature review Bernard Marr & others were able to identify five main reasons as to why firms measure the Intellectual capital (Marr, 2003). These were:

1. To help organizations formulate their strategy;
2. Assess strategy execution;
3. Assist in diversification and expansion decisions;
4. Use these as a basis for compensation; and finally
5. To communicate measures to external stakeholders

When looked at closely, it can be seen that firm measures IC with a purpose to generate more profits through increasing revenues or lowering costs; higher revenue generation can be achieved by formulation of appropriate strategies and by improving the brand image in the market, lower costs can be achieved through rationalizing the compensation structure. Therefore, the measurement of IC is expected to increase the

value of the firm though improving competitive advantage and hence considered significant.

However, it needs to be further explored as to whether measurement and reporting of IC has shown significant improvement in performance of firms across countries. Here we move on to analyse the literature available on this subject.

Evidence from Research Literature

In the last section, an analysis of the motivation for firms to measure IC was attempted; it was observed that most reasons revolved around formulating and improving internal systems to increase competitive advantage. Having measured intellectual capital, reporting and communicating the results to external stakeholders seems to be one of the least preferred objectives. This section attempts to explore the reasons as to why most firms though measure IC, are not motivated enough to report it to the external stakeholders. The related aspect of whether the performance of the firm is related to IC and if yes, to what extent and is there any cause and effect relationship between these two variables is analysed in this section through published literature available in this area.

Factors Influencing IC Disclosure

IC disclosure is mandated in many countries, and one of the reasons that can be identified for relatively low non-disclosure of IC by firms operating in such countries may be attributed to fear of loss of competitive advantage through unwarranted attention by competition at the market place. Besides this, there may be a fear that the regulator may look at these disclosures from the point of view competition law and finally may term it as uncompetitive practice.

The measurement and reporting of IC involves a cost to the company both in financial and non-financial terms. The tangible financial costs can be set aside by the firms, if the direct link between performance and IC disclosure can be established. However, the second aspect of non-financial costs is the one that poses a challenge; since the period, nature and extent of damage that can be created is not measurable in absolute terms.

To quote a few studies in this area of exploring factors that influence measurement and reporting of IC. One such study pertains to Portuguese companies; it finds that size and type of auditor are significant in explaining IC disclosures, whereas leverage, profitability, ownership concentration, and intellectual capital level are not. (Ferreira, 2012) Another study related to Malaysian firm's shows that about 72.6 percent of the companies of the 150 selected for research disclosed intellectual capital in their annual reports. They found that determinants of disclosure are age, size, director ownership and growth. (Taliyang, 2011)

Evidence from Taiwan shows mixed results with respect to the correlation between various components of IC and the firm attributes. (Chang, 2007) A paper by An Yi examines the effects of industry type, firm size and corporate performance on intellectual capital (IC) disclosure among Chinese mainland companies. It was found that industry type did not have a significant influence on IC reporting practices of Chinese firms; however, the larger firms generally reported more IC information than the relatively smaller firms. (Yi & *et al.* 2011)

A brief summary of the research evidence is presented in Table 2 below for quick reference.

Table 2: Factors Influencing IC Disclosure

Research Study	Country Focus	Factors influencing IC disclosures
Ferreira, 2012	Portugal	Size of the firm
Taliyang, 2011	Malaysia	Age of the firm, size, Director Ownership and Growth
Yi & <i>et al.</i> 2011	China Mainland	Size of the firm
Brüggen, 2009	Australia	Type of Industry and Firm Size
Williams, 2001	Great Britain	Leverage, industry exposure and listing status
Jindhal and Kumar, 2012	India	Size of the firm and the employee expenses

The result from Australia finds that industry type plays a key role as a determinant for the disclosure of intellectual property in annual reports. In addition, firm size is another determinant for intellectual disclosure of firms; the paper does not find any relationship between the level of information asymmetry and intellectual capital disclosure. (Brüggen, 2009)

The study in disclosures in Canadian firms suggest that the initiatives of IC disclosures may initially be used for internal management purposes only; however, an external stakeholder-focus report will more than likely be the ultimate goal. (Bontis, 2002) The research from developing countries like India shows that IC disclosure is at its nascent stage and there have been few researches that have explored into the factors influencing IC disclosure. (Kamath, 2008; Joshi & *et al.*, 2012)

Dielis in his study points out that “though the IC disclosure is not mandated, the voluntary disclosures by corporations are increasing over a period of time; there are two theories that underlie the concept of voluntary disclosure: (1) the stakeholder theory and (2) the legitimacy theory (Guthrie, Petty, Yongvanich, and Ricceri, 2004). Miller and Whiting (Miller and Whiting, 2005) name two more theories: (3) signalling and (4) decision usefulness” (Dielis, 2007)

As observed by Richard Petty, the literature study done by him suggested that the greatest obstacles for firms wishing to adopt voluntary intellectual capital reporting are: (a) the lack of consistency in methodologies for disclosure; and (b) difficulties in assigning meaningful and reliable quantitative values to identifiable intellectual capital. He also concludes that if these obstacles persist, it is likely that few firms will see any of the 'promised' benefits accruing to them as a reward for their efforts in extending their voluntary disclosures. (Petty, 2009)

ICD and Corporate Financial Performance

In this second part of this section, an attempt is made in finding evidences related to extent of disclosure and financial or market performance of the firm. The study on Taiwanese firm revealed that corporate profitability is significantly positively correlated to the disclosure frequencies of external capital and human capital, but is significantly negatively correlated to the disclosure quality of human capital (Chang, 2007) Another study that focussed on IC disclosures (ICD) in annual reports of Swedish, British and Danish firms provides evidence for the argument that firms focus their ICD on those IC elements that are most relevant for the company's value creation process. (Verguaven, 2005)

Per Nikolaj Bukh argues that, for intellectual capital disclosure to be perceived as relevant from a capital market perspective, the information should be disclosed as an integral part of a framework illuminating the value creation processes of the firm. The emerging practice with respect to intellectual capital offers such a framework for disclosing the business model of the knowledge-based company (Bukh, 2003).

Empirical findings by Williams did not indicate any systematic relationship between intellectual capital performance and the quantity of disclosure during the survey period of 1996-2000 for FTSE listed 100 companies. Results of the study however, suggest that if intellectual capital performance is too high the amount of disclosure is reduced. This negative association may support the suggestion that firms reduce intellectual capital disclosures when performance reaches a threshold level for fear of competitive advantage being lost. Leverage, industry exposure and listing status was also found to have an influence on the quantity of disclosure. (Williams, 2001)

**Table 3: Relationship between ICD and Corporate Financial Performance-Research
Summary**

Research Study	Country Focus	Financial Indicators and Relationship with ICD
Chang, 2007	Taiwan	Profitability with external capital and Human capital: Positive Correlation
Verguaven, 2005	Sweden, Great Britain and Denmark	Value of the Firm and IC Components: Positive Correlation
Williams, 2001	Great Britain	No correlation
Yi & <i>etal.</i> 2011	China	Overall Performance and IC: Positive Correlation
Clarke, 2011	Australia	Capital Employed Efficiency and Value added Intellectual Capital: Positive relationship
Ren & Ren, 2009		Relational capital and overall Performance : Positive relationship
Chan, 2009	Hong Kong	No correlation bet IC and Overall Financial Performance; Moderate association between profitability and IC
Mangena & <i>et al</i> , 2010	UK	Inverse relationship between cost of equity capital and ICD
Mari'aDí'ez & <i>et al</i> , 2010	Spain	Sales Growth and Human capital: Positive relationship
Pasaribu, 2012	Indonesia	VAIC and corporate Performance: Positive relationship
Maditinos, 2009	Greece	Structural capital and business performance: positive relationship
Pal and Soriya, 2011 Pal and Soriya, 2012	India: IT industry Pharmaceutical and Textile industries	Profitability and ICD; no relationship with market capitalization and Productivity
Kamath, 2008	India: Pharmaceutical industries	Human Capital, Productivity and Profitability positively related
Mondal and Ghosh, 2012	India	No specific pattern of relationship

Yet another study analysed 139 firms in the drugs industry, and found that firms with the highest level of intangible assets clearly performed better than those with lower levels. The high level firms had significantly better returns and significantly less variability in stock price. (Bramhandkar, 1990)

The study of Chinese firms revealed that there was a positive relationship between corporate performance and IC disclosure. (Yi & *etal.* 2011) Clarke in his study of Australian firms suggests that there is a direct relationship between VAIC (Value added Intellectual Capital) and performance of Australian publicly listed firms, particularly with CEE (Capital employed efficiency) and to a lesser extent with HCE (Human capital efficiency). However evidence from the study also suggests the possibility of an alternative moderating relationship between the IC components of HCE and SCE (Structural capital efficiency) with physical and financial capital (CEE) which impacts on firm performance. (Clarke, 2011)

A Research study by Ren & Ren, verified that relational capital is the most significant factor that influences corporate performance, followed by structural capital and human capital. However, it was found by them that Human capital has an indirect impact on performance through relational capital and structural capital. (Ren & Ren, 2009) Chan finds no strong and conclusive evidence for any relation between IC and indicators of financial performance of the firms in Hong Kong for the period of study; however, he finds a very moderate association between profitability and IC. (Chan, 2009)

A study was done by Pike, Mangena and Li for UK firms, the results of the study indicated that firms which make greater levels of intellectual capital disclosure benefit from a lower cost of equity capital than firms making lower intellectual capital disclosures. The study also finds that this reduction in cost of capital is quite significant and even more significant for IC intensive industries. (Mangena & *etal.*, 2010)

Mari'aDí'ez & others in their study related to Spanish firms reveal the increase in sales growth due to human and structural capital indicators. However, the research does not find any relation with productivity or return on assets with any component of IC. (Mari'aDí'ez & *etal.*, 2010)

Pasaribu and others studied around 80 firms listed on Indonesian stock exchange, the results of their study found that the Intellectual Capital (VAIC) proved to be significantly positive effect on the present and future performance of the company; (Pasaribu, 2012) another study by Ardiansyah also detected that the intellectual capital disclosure affects the stock market price and earnings of the firm. (Ardiansyah) The study on Greek companies reveals that structural capital has a positive relationship to business performance in both service and non-service type of industry, but a higher influence especially in non- service industries. Customer capital and innovation capital have an important and positive relationship with structural capital and therefore can be said to have an

indirect influence on the business performance. (Madininos, 2009)

It is observed that most of the studies were country specific in nature and concentrated on the analysis of specific industries. Few studies attempted a comparison between firms of different countries, mainly because of non-existence of standard method of measurement and model of reporting IC. Some studies performed a more detailed study of IC sub-classification and its relation with corporate performance.

Overall, there seems to be a general correlation between the intellectual capital and performance of firms, as pointed out by many of these studies. The results of these studies were mixed, especially when the decomposition was performed. The structural capital and human capital disclosure seem to have correlation with performance indicators across various countries. The trends and extent of disclosure also varied significantly over various components, period of time and across various industries & countries. However, across different IC categories, the general trend is increase in disclosure of the term "Brand" & Components of human capital (Abdifatah, 2012; Dielis, 2007). The level of transparency and the quality of disclosures does have a relation with the extent of response by stock market or impact on performance of the firm.

A brief Summary of the research evidence on IC disclosure and corporate financial performance is presented in Table 3 above.

Studies in Indian Context:

Pal and Soriya examine the relationship between financial reporting of intellectual capital and company's performances in Indian information technology industry. The results suggest that profitability of the company was explained by the intellectual capital, and there is no significant association of intellectual capital with productivity and market capitalization (Pal and Soriya, 2011). In another instance, they find though that profitability and intellectual capital are positively associated but there exists no significant relationship with productivity and market valuation in pharmaceutical and textile industries (Pal and Soriya, 2012).

Kamath examines the relationship between corporate Performance and IC for pharmaceutical industries in India. The empirical analysis of the data found that the human capital had a major impact on the profitability and productivity of the firms. (Kamath, 2008) Joshi & others, find that the disclosure levels both in India and Australia are low for IT firms, and suggest for a uniform and consistent method of measuring and reporting IC to enable cross-section comparisons among nations. (Joshi & *etal.*, 2012)

Jindhal and Kumar in their study find that there is very high variation with regard to Human capital disclosure in Indian IT firms. They conclude that size of the firm and the employee expenses have a bearing on IC disclosures. (Jindhal and Kumar, 2012) Mondal and Ghosh also find varied relationship

between the performance and IC. However, the authors do stress on the significance of intellectual capital measurement and reporting for securing competitive advantage. (Mondal and Ghosh, 2012)

Some other studies analyse the extent of disclosure in the annual reports or through other means in specific industries, especially in IT industry. Almost all studies find that there is negligible or no disclosure of IC by Indian firms. The methodology adopted for the study also varied to a large extent, making comparisons among studies inconsistent. Some studies used survey, others content analysis and some others used the data available in annual reports to arrive at conclusions through statistical methods.

Evaluating the experiences of Indian firms, an explanation on some of the reasons for Indian firm's inability at creating and using intellectual capital can be found. It is observed that there is a general lack of vision and confidence among Indian firms regarding IC Strategy; also there are not enough role models who have proved that IC reporting improves performance; the need to differentiate and competitive advantage using IC is not deep enough; besides these, there is an inherent scarcity of resources and skills to develop and implement the IC program effectively and on priority basis. Tacit knowledge to be seen as an asset for organizational growth is yet to take off even in knowledge intensive industries. (Rishikesh) Apart from these, many firms located at sub-urban and rural areas with limitations of exposure have no clue about the discussions related to IC and their contribution in enhancing firm's value.

This problem can be resolved to a large extent through generating better understanding of how intellectual capital is created, measured and reported; including more projects and activities that create knowledge; imbibe in the system specific mechanisms for knowledge capture and put in place strong implementation mechanisms. (Rishikesh) Among all the other measures, systems of financial support/incentive for those who disclose IC voluntarily may be set up for SME's.

As clearly found through research, size of firm has close connection with the IC disclosure, therefore, large firms with progressive and proactive management team must take up initiatives in measuring and reporting IC in India. With this they gain the first mover advantage, set examples to competitors and spread a positive communication to all external stakeholders. These firms then set standards for level of transparency and quality for others to follow. The knowledge intensive firms across sectors especially those in service sectors must take it as an opportunity.

Thus, this paper provides evidences that IC does result in enhanced financial performance indicators and assists in building unique competitive advantage. Indian firms must be made aware of this changing development across various countries and intangible asset intensive firms must take up leadership position in measuring and voluntary reporting of IC. This paper also highlighted the gaps in existing research

especially in developing countries and India, specific research projects sponsored by industry to fill in these may be taken up by academicians and researchers which will act as a decision enabler to several industries.

References

- Abdifatah Ahmed Haji, Nazli A. Mohd Ghazali, (2012) "Intellectual capital disclosure trends: some Malaysian evidence", *Journal of Intellectual Capital*, Vol. 13 Issue 3, pp.377–397
- Afzalur Rashid, "Corporate intellectual capital disclosure in a non-mandatory disclosure regime", School of Accounting, Economics and Finance, University of Southern Queensland, http://apira2010.econ.usyd.edu.au/conference_proceedings/APIRA-2010-061-Rashid-Afzalur-Intellectual-capital-disclosure.pdf accessed in March 2013
- Ardiansyah, "The impact of the size of intellectual capital disclosure to relationship between corporate performance and stock price", <http://www.wbiconpro.com/341-Ardiansyah.pdf>, accessed in March 2013
- Bontis, Nick, (1998), "Intellectual Capital: An exploratory study that develops measures and models", *Management Decision*, Vol. 36, No. 2, pp 63-76.
- Bontis, Nick, (2002), "Intellectual capital disclosure in Canadian corporations", <http://www.business.mcmaster.ca/mktg/nbontis/ic/publications/BontisJHRCA.pdf>, accessed in March 2013
- Bramhandkar, A., Erickson, S. & Applebee, I., (1990), "Intellectual capital and organizational performance: an empirical study of the pharmaceutical industry", *Journal of Knowledge Management*, Vol. 5, No. 4, pp.357-362
- Brüggen Alexander, Philip Vergauwen, Mai Dao, (2009), "Determinants of intellectual capital disclosure: evidence from Australia", *Management Decision*, Vol. 47 Issue 2, pp.233–245
- Bukh Per Nikolaj, (2003), "The relevance of intellectual capital disclosure: a paradox?", *Accounting, Auditing & Accountability Journal*, Vol. 16 No. 1, pp. 49-56 http://pnbukh.com/files/pdf_artikler/the_relevance_of_intellectual_capital.pdf, accessed in March 2013
- Chan Kin Hang, (2009), "Impact of intellectual capital on organisational performance: An empirical study of companies in the Hang Seng Index (Part 1 & 2)", *The Learning Organization*, Vol. 16 Issue 1, pp.4-21 & pp.22–39
- Chang Yuan-Chieh, Huo-Tsiang Chang, (2007), "Firm

- attributes and intellectual capital disclosure: evidences from IPO prospectuses in Taiwan", <http://120.107.180.177/1832/9801/9801-13pa.pdf> accessed in March 2013
- Clarke Martin, Dyna Seng, Rosalind H. Whiting, (2011) "Intellectual capital and firm performance in Australia", *Journal of Intellectual Capital*, Vol. 12 Issue 4, pp.505 – 530
- Dielis Mathijs J.A.B., (2007), "Intellectual capital disclosure in corporate annual reports: establishing culture as a driver and discovering trends", Master's Thesis Maastricht University, Faculty of Economics and Business Administration, Department of Accounting and Information Management, <http://arno.unimaas.nl/show.cgi?fid=10272>, accessed in March 2013
- Edvinsson, L. & Malone, M., (1997), *Intellectual Capital*, Harper Business, New York
- Ferreira Ana Lúcia, Manuel Castelo Branco, José António Moreira, (2012), "Factors influencing intellectual capital disclosure by Portuguese companies", *International Journal of Accounting and Financial Reporting*, Vol. 2, No. 2. <http://www.macrothink.org/journal/index.php/ijaf/article/view/2844/2537>, accessed in March 2013
- IFAC (1998), The Measurement and Management of Intellectual Capital: An Introduction, Financial and Management Accounting Committee IFAC 1998 Study 7
- Jindhal Sonia and Manoj Kumar, (2012), "The determinants of HC disclosures of Indian firms", *Journal of Intellectual Capital*, Vol. 13 No. 2, pp. 221-247
- Joshi Mahesh, Dharminder Singh Ubha, Jasvinder Sidhu, (2012), "Intellectual capital disclosures by Indian and Australian information technology companies: A comparative analysis", *Journal of Intellectual Capital*, Vol. 13 No. 4, pp. 582-598
- Kamath, G.B., (2008), "Intellectual capital and corporate performance in Indian pharmaceutical industry", *Journal of Intellectual Capital*, Vol. 9, No. 4, pp.684-704
- Krishnan Rishiksha T., "Measuring intellectual capital: a strategic perspective" <http://www.iimb.ernet.in/~rishi/intell%20capital%20jul03.PDF> accessed in March 2013
- Maditinos, D. et al., (2009), "Intellectual capital and business performance: an empirical study for the Greek listed companies", *7th International Conference on Accounting and Finance in Transition*, July, pp.23-25
- Mangena Musa, Richard Pike, Jing Li, (2010), "Intellectual capital disclosure practices and effects on the cost of equity capital: UK evidence", *The Institute of Chartered Accountants of Scotland*, Edinburgh, icas.org.uk/res/mangena_pike_report_april_2010.pdf, accessed in March 2013
- Mari'aDí'ez Jose, Magda Lizet Ochoa, M. Begon'a Prieto and Alicia Santidria'n, (2010), "Intellectual capital and value creation in Spanish firms", *Journal of Intellectual Capital*, Vol. 11, No. 3, pp. 348-367
- Marr Bernard, Dina Gray and Andy Neely, (2003), "Why do firms measure their intellectual capital?", *Journal of Intellectual Capital*, Vol. 4 No. 4, pp. 441-464
- Mondal Amitava, Santanu Kumar Ghosh, (2012), "Intellectual capital and financial performance of Indian banks", *Journal of Intellectual Capital*, Vol. 13 No. 4, pp. 515-530
- Pal Karam and Sushila Soriya, (2012), "IC performance of Indian pharmaceutical and textile industry", *Journal of Intellectual Capital*, Vol. 13 No. 1, pp. 120-137
- Pal, Karam and Soriya, Sushila, (2011), "Financial reporting of intellectual capital and company's performance in Indian information technology industry", *International Journal of Asian Business and Information Management (IJABIM)*, Vol. 2, Issue 2, pp. 34-49
- Pasaribu Hiras, Dian Indri Purnamasari, and Indri Tri Hapsari, (2012), "The role of corporate intellectual capital", *American International Journal of Contemporary Research*, Vol. 2, No. 9, http://www.aijcrnet.com/journals/Vol_2_No_9_September_2012/19.pdf, accessed in March 2013
- Petty, Richard, Cuganesan, Suresh, Finch, Nigel and Ford, Guy, (2009), "Intellectual capital and valuation: challenges in the voluntary disclosure of value drivers" available at SSRN: <http://ssrn.com/abstract=1490208>, accessed in March 2013
- Ren, J.-yi R.J.-yi, (2009), "The empirical study on the relationship between corporate intellectual capital and corporate performance", *16th International Conference on Industrial Engineering and Engineering Management*, Vol. 40, No. 6, pp.537-541
- Sveiby Karl-Erik (1989), *The Invisible Balance Sheet*, New York
- Taliyang Siti Mariana, Rohaida Abdul Latif, Nurul Huda Mustafa, (2011), "The determinants of intellectual capital disclosure among Malaysian listed companies", *International Journal of Management and Marketing Research*, Vol. 4, No. 3, pp. 25-33,
- Vergauwen Philip, Laury Bollen, Els Oirbans, (2007),

Intellectual capital disclosure and intangible value drivers: an empirical study, *Management Decision*, Vol. 45 No. 7, pp. 1163 - 1180
<http://www.personeel.unimaas.nl/L.Bollen/articles/MD%20VBO%20published.pdf>, accessed in March 2013

Williams Mitchell S., (2001), "Is intellectual capital performance and disclosure practices related?", *Journal of Intellectual Capital*, Vol. 2 Issue 3, pp.192 – 203

Yi, An, Davey, Howard and Eggleton, Ian R. C., (2011), "The effects of industry type, company size and performance on Chinese companies' IC disclosure: a research note", *Australasian Accounting Business and Finance Journal*, Vol. 5, No. 3, pp. 107-116.
<http://ro.uow.edu.au/aabfj/vol5/iss3/8/>, accessed in March 2013