2019, Vol. 05 (1) **73-89**Copyright © University of Sri Jayewardenepura ISSN 2448-9344
ISBN 978-955-23-0019-3
Reprints and permissions: vim@sjp.ac.lk

# Impact of Managerial Perception of Intellectual Capital Disclosure Practices on the Credibility of the Financial Statements

### S.D. Jayasooriya

General Sir John Kotelawala Defence University

#### K.D. Gunawardana

University of Sri Jayewardenepura

#### Y.K. Weerakoon Banda

University of Sri Jayewardenepura

### Abstract

This study aims to investigate the impact of managerial perception of intellectual capital disclosure practices on the credibility of the financial statements. As the method, the primary data was collected through a questionnaire. The targeted sample was the financial managers who are directly involved in preparing financial statements in the public limited companies. 150 questionnaires were distributed covering the financial managers in all the sectors using the stratified random sampling method. There were three hypotheses developed covering the major components of intellectual capital as human, customer and social. Correlation analysis was conducted to test the hypotheses using the SPSS software. It was found that there is a relationship between the managerial perception of intellectual capital disclosure practices and the credibility of the financial statements. Through a regression analysis, it showed that there is an impact of intellectual capital disclosure practices on the credibility of financial statements. The managers believe that the existing reporting practices do not represent the reality of the organizational performance until the intellectual capital is incorporated to the financial statements. Further, they have suggested that there should be a proper mechanism to report the intellectual capital in the financial statements or in the annual reports to avoid such kind of misrepresentation.

#### **Keywords**

Intellectual Capital, Disclosure Practices, Credibility, Financial Statements

Corresponding Author:

Dr. S.D. Jayasooriya, E-mail: sanjayadj@yahoo.com

#### Introduction

Intellectual capital disclosure practices are one of the modern accounting practices in the field of accounting and that is a voluntary disclosure practice which is used by the companies to show their strengths of intellectual capital to the stakeholders (Guthrie & Petty, 2004). The companies mostly use annual reports to report their intellectual capital. Dzinkowski (2000) say that, presently there is no any universally acceptable definition for intellectual capital, although practitioners, business journalists and academics have the same broad set of practices in minds. At present, still there is a room for experimentation in quantifying and reporting on the intellectual capital of an organization.

There are three capital components that can be identified in the Intellectual Capital (IC) as Human Capital (HC), Organizational Capital (OC) and Social Capital (SC). Those capitals give a considerable contribution to the wealth of the organization (Sevlby, 1997; Stewart & Ruckdeschel, 1998; Leon, 2002; Caddy, 2000) and the main problem is the subjectivity and complexity of reporting them (Svelby, 2000; Sullivan, 2000; Seetharamnan, Lock and Saravanan, 2004). Therefore, it is hard to compare and get a clear idea about the intellectual capital of the organizations. Without proper reporting of intellectual capital, the financial statements of the companies do not represent the real value of their organization. (Edvinsson, 1997; Johanson, 1999; Roslendr and Fincham, 2001). Therefore, the decisions taken by referring the figures of financial statements will be problematic without considering the strength of intellectual capital of the company (Bredker, Guthrie and Cuganensum, 2005). According to the Sri Lankan context, finding the importance of reporting the intellectual capital in the financial statements is also needed (Abeysekara and Guthrie, 2005).

Since, there is no any proper mechanism to disclose the intellectual capital in the financial statements, the credibility of the financial statements will be problematic (Han and Han, 2004; Homer, 2009; Leslie, Eyesan and Semiu, 2009). According to American Heritage Dictionary (2010), financial credibility is the capacity for belief the financial statements. Collins English Dictionary (2003) stipulates that the financial credibility as the quality of being believed or trusted about the financial statements. If the credibility is not available, the comparison of financial statements will not be worthwhile and create a gray space which is questionable. But, to represent the exact resource base of the organizations and to enhance the credibility, it is

needed to develop a proper mechanism to disclose the intellectual capital in the financial statements (Zambon, 2005). Therefore, due to the improper practices of intellectual capital disclosures, the financial credibility of the financial statements is understated. First objective of this study is to find the relationship between the managerial perception of intellectual capital disclosure practices and the financial credibility of the financial statements. The second objective is to find the impact of the managerial perception of intellectual capital disclosure practices on the financial credibility of the financial statements.

### Literature Review

Intellectual capital (IC) is the knowledge that can be exploited for some money-making or other useful purpose. The term combines the idea of the intellect or brain-power with the economic concept of capital. The saving of entitled benefits can be invested in producing more goods and services (Guthrie, Petty and Johanson, 2001). There are three components in intellectual capital as human, organizational and social capital.

Human capital encompasses how effectively an organization uses its people as measured by creativity and innovation (Petrash, 1996; Guthrie, Petty and Johanson, 2001; Gegan and Draghici, 2013). Therefore, in this study, leadership styles, employee motivation and satisfaction, work related knowledge and competency, entrepreneurial spirit and innovativeness of the employee of the listed companies have been investigated under the human capital as a major section of the intellectual capital.

Organizational capital means the knowledge flow of the structure of the organizations. It includes corporate strategies, processes, corporate culture, systems, and management credibility of the organizations (Petrash, 1996; Guthrie, Petty and Johanson, 2001; Gegan and Draghici, 2013). It is named as Structural Capital which is internal. All the internal knowledge flow raised from the organizational structure has been discussed under the organizational capital.

Social capital is directly related to the external environment of the organization. Quality of the product, customer satisfaction, growth of the business in the market, customer complaints and favorable contracts with the peer groups (Petrash, 1996; Guthrie, Petty and Johanson, 2001; Gegan and Draghici, 2013) have been discussed under the social capital as a major part of the intellectual capital. This social capital is also called as customer capital.

The main dependent variable of this study is the credibility of the financial statements. The credibility of the financial statements has very salient implications for the quality of decisions that investors can make (Leslie, Eyesan and Semiu, 2009). Therefore, financial credibility can be defined as the capacity of believing the financial statements which basically cover the reliability, relevance, comparability, quality of representation and the risk of the financial statements (Han and Han, 2004; Homer, 2009).

Resource dependence theory (RDT) was the main theory which is used in the study. RDT is the study of how the external resources of organizations affect the behavior of the organization. Therefore, this covers all the variables of IC disclosures and RDT fits to this study. The procurement of external resources is an important tenet of both the strategic and tactical management of any company. The core of this theory was linked to the operationalization of variables.

Apart from the theoretical background there were considerable number of researches which have been conducted by great scholars in this field. It has been mentioned the evolution of intellectual capital reporting practices in the organizations and early research projects have tried to develop guidelines and accounting standards for intellectual capital (Nerdrum and Erikson, 2001; Lim and Dallimore, 2004; Dumay, 2014). Considering the direct impact of organizational resources on the performance of the company is the key concept of being successes in the business field. The resources-based theory has contributed a lot in this field specially how to allocate the intangibles in measuring organizational performances (Barney, 1996; Barney, Ketchen and Wright, 2011). However, the suggested findings were not much strong enough to report them. Thus, this study is aimed to analyze the implementation issues of reporting the suggested intellectual capital measurements by the above said researchers.

Campbell and Rahman (2010) have suggested that the common categories and dimensions for reporting the intellectual capital covering the major three areas as human capital, customer capital and organizational capital. Striukova, Unerman and Guthrie (2008) have done a research on the title "Corporate reporting of intellectual capital: Evidence from UK companies", stating that the disclosures of the IC using a content analysis which was also not covered the valuation and measurement of them. These common variables have been

introduced by the said scholars to represent the IC. Therefore, these variables have been taken in to account to do this study. Kannan (2008) has done a broad literature survey, including financial and accounting measurement techniques, perceptual measures, process and systems measures, social networks analysis techniques, and econometric techniques for intangibles measurement. It is discussed in detail about the seminal studies and popular frameworks for intellectual capital measurement. But that was also not finalized to introduce a proper mechanism to measure the intellectual capital. The argument of this study is totally lined to the findings of the above said research study. Therefore, it has been shown that there should be further studies to address the common issue to find a common procedure to report IC.

As evident, fair amount of both theoretical and empirical studies have been undertaken on intellectual capital in recent years. Early research mainly focused on defining intellectual capital and on methods of classification (Brooking, 1996; Edvinsson and Malone, 1997; Sveiby, 1997; Roos et al., 1997; Nash, 1998). Proposed different frameworks for classifying intellectual capital are there in the recent history of IC. These frameworks are broadly similar, but, show different interrelationships among the elements of intellectual capital (Kaplan and Norton 1996; Sveiby 1997; and Edvinsson and Malone, 1997; Petty and Guthrie, 2008).

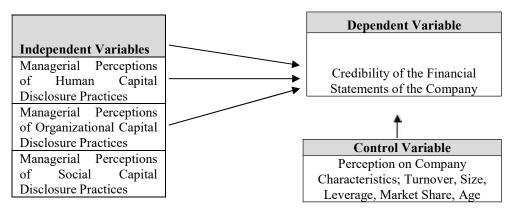
In the Sri Lankan context, there were few researches in this regard and found IC reporting practices is a needful tool in the accounting disclosure, and it is essential to find a common procedure on the practice of IC capital disclosure in the accounting field (Kenelwalatenne and Gunaratne, 2010). Further, Kehelwalathenna (2016) has explored the behavior of the impact of IC on firm performance during financial crises. Further, differences in the context of human capital reporting in developed and developing nations were discussed by Abeysekara and Guthrie (2004, 2005). Their arguments are also in line with the main research problem which is to find a common practice for IC reporting to enhance the credibility of decision making.

By reviewing the above literature, the gap can be identified clearly as the fulfillment of representing the total wealth of the companies in the financial statements by enhancing the financial credibility through intellectual capital disclosure practices. Otherwise the financial credibility of the companies will be understated, and the financial statements do not show the real picture of the company.

# **Methodology**

The conceptual framework for the study has been designed by addressing the independent and dependent variables which were mentioned in the problem and the objectives of the study.

Figure 1: Conceptual Framework



According to the conceptual framework, there are three relationships while there is a set of control variables which affects the relationship between independent and dependent variables. The developed hypotheses are as follows.

- H1<sub>1</sub>: There is a relationship between Managerial perception of *Human Capital Disclosure Practices* and the *Financial Credibility of Financial Statements* of Listed Companies in Sri Lanka
- **H21:** There is a relationship between Managerial perception of *Organizational Capital Disclosure Practices* and the *Financial Credibility of Financial Statements* of Listed Companies in Sri Lanka
- **H3**<sub>1</sub>: There is a relationship between Managerial perception of *Customer Capital Disclosure Practices* and the *Financial Credibility of Financial Statements* of Listed Companies in Sri Lanka

The data collection method and the selection of sample are provided in the table 1.

**Table 1: Population and Sample** 

Method and		
Source	Population	Sample
Data collection Primary data through a Questionnaire (Leon, 2002)	There are around 298 public quoted companies under 20 industry sectors. (as at 31.01.2017). All the chief managers of the finance division of the above companies can be taken as the population.	Questionnaires were distributed to the chief accountant / finance managers of following selected companies. At least 50% of the companies from each industry /sector were selected as the sample. For that stratified random sampling method was used. The rationale for selecting the sample was to give an equal opportunity to each and every sector since all the companies of each sector have attended to report the IC.

The Sample breakdown of the study is illustrated in Table 2.

Table 2: Sectorial Sample Breakdown

	Sector	Population	Sample	Percentage
1	Bank Finance and Insurance	66	33	50.00%
2	Beverage Foods and Tobacco	22	11	50.00%
3	Chemicals and Pharmaceuticals	10	5	50.00%
4	Construction and Engineering	4	2	50.00%
5	Diversified Holding	19	10	52.63%
6	Footwear and Textiles	3	2	66.67%
7	Healthcare	6	3	50.00%
8	Hotel and Travels	38	19	50.00%
9	Information Technology	2	1	50.00%
10	Investment Trusts	10	5	50.00%

11	Lanka and Property	18	9	50.00%
12	Manufacturing	38	19	50.00%
13	Motors	6	3	50.00%
14	Oil Palms	6	3	50.00%
15	Plantation	20	10	50.00%
16	Power and Energy	8	4	50.00%
17	Service	8	4	50.00%
18	Stores Suppliers	4	2	50.00%
19	Telecommunication	2	1	50.00%
20	Trading	8	4	50.00%
	Total	298	150	50.34%

Structured questionnaire was used to collect data. All the questions were developed under five-point Likert scale from strongly agree to strongly disagree. All the independent variables, dependent variable and control variable were addressed by developing separate questions under each variable. Operationalization of the variables was done by using the measurement scales available in the literature.

Reliability and validity tests were conducted. Inter-item reliability for all the variables was ensured through Cronbach's Alpha values of overall 0.892 and more than 0.8 for each variable. Validity measures were done through a factor analysis. The Kaiser-Meyer-Olkin Measure of Sampling adequacy and Bartlett's Test was conducted and found 0.712 value showing a higher validity of the questionnaire.

# **Findings and Discussion**

# Relationship between Managerial Perception of Intellectual Capital Disclosures and Financial Credibility

**Table 3: Correlation Analysis** 

Hypothesis					Significance	Correlation
					Value	
Managerial	Perception	of	Human	Capital	0.001	0.527
Disclosure Practices and Credibility of Financial						
Statements						

Managerial Perception of Organizational Capital	0.000	0.633
Disclosure Practices and Credibility of Financial		
Statements		
Managerial Perception of Customer Capital	0.002	0.653
Disclosure Practices and Credibility of Financial		
Statements		

## Hypothesis 1

H1<sub>1</sub>There is a relationship between the managerial perception of human capital disclosure practices and credibility of financial statements of listed companies in Sri Lanka.

The hypothesis one (H1) is supported concluding that there is a positive strong significant relationship between the managerial perception of human capital disclosure practices and credibility of financial statements of listed companies in Sri Lanka.

## Hypothesis 2

H2<sub>1</sub>There is a relationship between the managerial perception of organizational capital disclosure practices and credibility of financial statements of listed companies in Sri Lanka.

According to table 3, hypothesis H2<sub>1</sub> is supported concluding that there is a positive strong significant relationship between the managerial perception of organizational capital disclosure practices and credibility of financial statements of listed companies in Sri Lanka.

## Hypothesis 3

H3<sub>1</sub>There is a relationship between the managerial perception of customer capital disclosure practices and credibility of financial statements of listed companies in Sri Lanka.

According to table 3, hypothesis H3<sub>1</sub> is supported at 99% confidence level. It can be concluded that there is a positive strong significant relationship between the managerial perception of customer capital disclosure practices and credibility of financial statements of listed companies in Sri Lanka.

# Impact of Managerial Perception of Intellectual Capital Disclosure Practices on Financial Credibility

**Table 4: Model Summary** 

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.760ª	.578	.557	.43497

As per the results in Table 4 the R<sup>2</sup> value '0.578' explains 57.8% of the variability of the dependent variable, i.e. 'financial credibility of financial statements' is explained by the chosen independent variables.

**Table 5: ANOVA** 

Mod	del	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	36.802	7	5.257	27.788	.000ª
	Residual	26.866	142	.189		
	Total	63.668	149			

The Table 5 shows that the regression model is significant at 99% confidence level.

Table 6: Coefficients<sup>a</sup>

		Unstandardized	Coefficients	Standardized Coefficients		
Model		В	Std. Error	Beta	T	Sig.
1	(Constant)	1.020	.214		4.762	.000
	HCM	.102	.071	.126	1.439	.012
	OCM	.254	.074	.289	3.446	.001
	CCM	.322	.075	.367	4.286	.000
	CVOF1	.206	.051	.317	4.028	.000
	CVOF2	034	.058	056	588	.017
	CVOF3	124	.066	202	-1.887	.041
	CVOF4	.023	.046	.043	.490	.025

According to the estimated model coefficients (Table 6), the following model equation can be developed.

$$Predicted FCM = 1.020 + (0.102 \times HCM) + (0.254 \times OCM) + (0.322 \times CCM) + (0.206 \times CVOF1) - (0.034 \times CVOF2) - (0.124 \times CVOF3) + (0.023 \times CVOF4) + SE$$

FCM: Financial Credibility – Dependent Variable HCM: Human Capital – An Independent Variable

OCM: Organizational Capital - An Independent Variable

CCM: Customer Capital - An Independent Variable

CVOF1,2,3,4: Control Variables

SE: Standard Error

In summary, it can be stated that there is an impact of the intellectual capital disclosure practices and the credibility of financial statements. All the statistical tests show that there are significant impacts of independent variables on the dependent variable. Control variable is also adjusted to the independent variables and to the model equation according to the statistical concept and the theory. Then, a multiple regression was run to predict FCM from HCM, OCM and CCM. These variables statistically significantly predicted FCM, F (7, 142) = 27.788, p < .05, R<sup>2</sup> = .578. All four variables added statistically significantly to the prediction, p < .05, first customer capital disclosure, then human capital disclosure and human capital disclosure respectively.

The findings reveal that the credibility of the financial statements can be enhanced through a proper reporting practice of intellectual capital disclosures. The gap says that the credibility of the financial statements is understated due to lack of concentration of intellectual capital for the decision making. Managers believe that the intellectual capital disclosure is needed to enhance the credibility of the financial statements. According to Guthrie and Petty (2000) it was stated that the intellectual capital information should not be separated from the major financial statements of the companies. Then the IC reporting will not be considered for decision making. Brennan (2001) said that the financial statements should recognized the intellectual capital value to enhance the quality decision making. "The main problem seems to be that much of the work on IC is being done in isolation and is not part of an overall strategy". (Wall, 2002, p.29). Therefore, the link should be developed with the financial statements to avoid this isolation.

### **Recommendations and Conclusion**

It was found that there is a relationship between the managerial perception of IC disclosure practices and financial credibility of the financial statements. Therefore, all the organizations should identify this relationship and should be able to report the IC information by using a common method. A request should be done from the ICASL or any authorized body to interfere this matter to streamline the IC reporting process. Their reasoning is that the narratives that emerge as elements of Intellectual Capital Statements will be partial, and thereby largely reflect the views or perspectives of those who formulate them. The narrative of IC disclosures does not maintain the consistence of reporting which violates the credibility of the financial statements.

Developing a method will be possible if there is a space for reporting the IC in the annual reports. There will be a possibility to find the relationships or links with the variables with available data. Before, identifying a common method, the companies should attend and should have an interest on reporting the IC in their annual reports. Therefore, before formulating a framework, it is better to report the IC even using a descriptive method to identify the link between the IC and credibility of financial statements. Then a common method for descriptive data should be developed. If there are details and information, it is possible to for streamlining the reporting process.

Financial credibility of financial statements is a part of the financial statements, not only a part of the disclosures in the annual reports. Therefore, finding a proper method is needed. Because, management is now being called upon to formulate a detailed narrative about its own activities while the sort of narrative approaches envisaged by writers such as Mouritsen, Larsen and Bukh (2001b) moves intellectual capital reporting on to a new and exciting level, Roslender and Fincham (2001) advocate the development of a more progressive genre of Intellectual Capital Self-Accounts. There should be a method of measuring those using numerical figures at the initial stage. For example, employee satisfaction index, customer satisfaction index, number of customer complaints, etc. can be quantified. Then those things should be reported by linking the values/figures of the financial statements like the customer satisfaction with sales volume, etc. There should be a method of reporting them even in the notes of financial statements before recognizing them to the face of the financial statements. To fulfill the research gap, it was found that there is a relationship between intellectual capital disclosures and financial credibility and as well as an impact of intellectual capital disclosures on financial credibility on

the financial statements. Therefore, companies should attend on reporting the intellectual capital in a proper manner to enhance the credibility of financial statements.

### References

- Abeysekera, I. and Guthrie, J., 2004. Human capital reporting in a developing nation. *The British Accounting Review*, *36*(3), pp.251-268.
- Abeysekera, I., 2008, March. Motivations behind human capital disclosure in annual reports. In *Accounting Forum* (Vol. 32, No. 1, pp. 16-29). Elsevier.
- Abeysekera, I (2008), 'Intellectual capital disclosure trends: Singapore and Sri Lanka', *Journal of Intellectual capital*, 9(4), pp.723-737.
- Abeysekera, I. and Guthrie, J. (2005), 'An empirical investigation of annual reporting trends of intellectual capital in Sri Lanka', *Critical Perspectives on accounting*, 16(3), pp.151-163.
- Barney, J.B., (1996). 'The resource-based theory of the firm. *Organization science*, 7(5), pp.469-469.
- Barney, J.B., Ketchen, D.J. and Wright, M., (2011), 'The future of resource-based theory revitalization or decline?'. *Journal of management*, *37*(5), pp.1299-1315.
- Brennan N (2001), 'Reporting intellectual capital in annual reports: evidence from Ireland', *Accounting, Auditing and Accountability Journal*, 14(4), pp.423-436.
- Bradley, K. (1997), 'Intellectual capital and the new wealth of nations', *Business Strategy Review*, 8(1), 53-62.
- Brayman, A. & Bell, E. (2011), Business Research Methods, Oxford University Press, United Kingdom.
- Brennan, N. and Connell, B. (2000), 'Intellectual capital: current issues and

### JAYASOORIYA, GUNAWARDANA, WEERAKOON BANDA

- policy implications', Journal of Intellectual Capital, 1 (3), 206-240.
- Brooking, A. (1997), 'Management of intellectual capital', *Long Range Planning*, 30 (3), 364-5.
- Caddy, I. (2000), 'Intellectual capital: recognizing both assets and liabilities', *Journal of Intellectual Capital*, 1 (2), 129-146.
- Dumay, J. (2014), '15 years of the journal of intellectual capital and counting: a manifesto for transformational IC research'. *Journal of Intellectual Capital*, 15(1), pp.2-37.
- Dzinkowski, R. (2000), 'The measurement and management of intellectual capital: an introduction'. *Management Accounting*, 78(2), 32-36.
- Dzinkowski, R. (2000), 'The value of intellectual capital. *Journal of business strategy*', 21(4), pp.3-3.
- EdvinssoN, L. and Malone, M. (1997), 'Intellectual capital: the proven way to establish your company's real value by measuring its hidden brain power', Piatkus. London
- Guthrie, J. (2001), 'The management, measurement and the reporting of intellectual capital', *Journal of Intellectual Capital*, 2 (1), pp.27-41.
- Guthrie J and R Petty (2000), 'Intellectual capital: Australian reporting practices', *Journal of Intellectual Capital*, Vol.1(1), p. 241-251.
- Guthrie, J., Petty, R., & Johanson, U. (2001), 'Sunrise in the knowledge economy: managing, measuring and reporting intellectual capital'. *Accounting, Auditing & Accountability Journal*, 14(4), pp.365-384.
- Guthrie, J., Ricceri, F. and Dumayc, J. (2012), 'Reflections and projections: A decade of intellectual capital accounting research', *The British Accounting Review*. p. 68–82
- Guthrie, J., Petty, R. and Johanson, U., 2001. Sunrise in the knowledge

- economy: managing, measuring and reporting intellectual capital. *Accounting, Auditing & Accountability Journal*, 14(4), pp.365-384.
- Han, D., & Han, I. (2004), 'Prioritization and selection of intellectual capital measurement indicators using analytic hierarchy process for the mobile telecommunications industry'. *Expert Systems with applications*, 26(4), pp.519-527.
- Hillman, A.J., Withers, M.C. and Collins, B.J., (2009). Resource dependence theory: A review. *Journal of management*, *35*(6), pp.1404-1427.
- Hsu, Y.H. and Fang, W. (2009), 'Intellectual capital and new product development performance: The mediating role of organizational learning capability'. *Technological Forecasting and Social Change*, 76(5), pp.664-677.
- Johanson, U. (1999), 'Mobilising change: characteristics of intangibles proposed by 11 Swedish firms', paper presented at the International Symposium Measuring and Reporting Intellectual Capital: Experiences, Issues and Prospects, June, Amsterdam.
- Kaplan, R.S. and Norton, D.P., 2001. Transforming the balanced scorecard from performance measurement to strategic management: Part I. *Accounting horizons*, 15(1), pp.87-104.
- Kannan, G. and Aulbur, W. G. (2004), 'Intellectual capital: measurement effectiveness', *Journal of Intellectual Capital*, 5 (3), pp.389-413.
- Kehelwalatenna, S. and Gunaratne, P.S.M., (2010), 'The impact of intellectual capital on the firm performance and investor response: an empirical study of selected sectors in Colombo stock exchange'.
- Kehelwalatenna, S. (2016), 'Intellectual capital performance during financial crises', *Measuring Business Excellence*, 20(3), pp.55-78.
- Leon, M. V. T. (2002), 'Intellectual capital: managerial perceptions of organizational knowledge resources', *Journal of Intellectual Capital*, 3

- (2), pp.149-166.
- Mouritsen J, H T Larsen and P N Bukh (2001b), 'Intellectual capital and the 'capable firm': narrating, visualizing and numbering for managing knowledge', *Accounting, Organizations and Society*, Vol.26(7/8), pp.735-762.
- Nerdrum, L. and Erikson, T. (2001), 'Intellectual capital: a human capital perspective', *Journal of Intellectual Capital*. 2 (2). pp. 127-135.
- Petty, R. and Guthrie, J. (2000), 'Intellectual capital: literature review', *Journal of Intellectual Capital*, 1 (2), pp.155-176.
- Roslender, R. and Fincham, R. (2001), 'Thinking critically about intellectual capital accounting', *Accounting, Auditing & Accountability Journal*, 14 (4), pp.383-99
- Swartz, G.E., Swartz, N.P. and Firer, S. (2006). 'An empirical examination of the value relevance of intellectual capital using the Ohlson (1995) valuation model'. *Meditari Accountancy Research*, *14*(2), pp.67-81.
- Stewart, T. and Ruckdeschel, C., 1998. Intellectual capital: The new wealth of organizations. *Performance Improvement*, *37*(7), pp.56-59.
- Stewart, T.A. (1997), 'Intellectual capital: the new wealth of organizations', Doubleday, New York.
- Sveiby, K. E. (1998), 'Intellectual capital: Thinking ahead'. *AUSTRALIAN CPA*,68, 18-23.
- Sveiby, K. E. (2000), 'Measuring intangibles and intellectual capital'. Cambridge, Massechusetts: The MIT Press.
  - Sveiby, K.E. (1997), 'The new organizational wealth: managing and measuring knowledge-based assets', Berrett-Koehler, San Francisco, CA.
- Sveiby, K.E. (1998), 'Intellectual capital: thinking ahead", *Australian CPA*, June, 18-22.

- Sveiby, K.E. (1998b), 'Measuring intangibles and intellectual capital  $\pm$  an emerging first standard', http://www.sveiby.com.au/Emerging Standard.html
- Wall, A P (2002), 'Mental arithmetic', *Financial Management*, December, pp.28-29.