

THE RELATIONSHIP BETWEEN INTELLECTUAL CAPITAL EFFICIENCY
AND COMPANIES' PERFORMANCE AND ITS' DISCLOSURE IN NIGERIAN
COMPANIES

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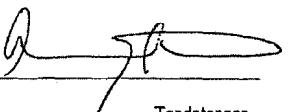
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ABSTRACT

This study aims to investigate the relationship between intellectual capital (IC) efficiency and companies' performance and its disclosure through a sample of 117 companies in Nigeria over a period of six years. Many intellectual capital studies in developed countries have established links between intellectual capital efficiency and its disclosure of company performance particularly through educational qualification, training and salaries for human capital. Research and development (R&D), advertising, brand and information technology for structural capital were used to investigate the value added efficiency of IC. However, in developing countries like Nigeria, very little attention has been given to IC efficiency and its disclosure in relation to company performance. Therefore, in order to expand the existing intellectual capital efficiency studies this study includes welfare package, compensation cost and intellectual property (patent) to examine IC. Secondary data (annual reports) was sourced from fourteen sectors and tested through multiple regression analysis.

The findings of the study provide empirical evidence that intellectual efficiencies are significant and positively related to company performance. The study further reveals that there is a significant difference in the intellectual capital disclosure practice of the sampled companies. Thus, it is recommended that policies that will improve employees' capability and organizational structure should be given priority. This study contributes immensely to the field of intellectual capital. Firstly, it introduces Nigerian companies' intellectual capital efficiency and its disclosure features. Secondly, the study expands the Public (2004, 2000) VAIC method by including welfare package, compensation cost and intellectual property as drivers of values. Lastly and most importantly, to the best knowledge of this researcher, this is the first study which simultaneously considers the intellectual capital efficiency and its disclosure in fourteen sectors of the Nigeria economy.

Keywords: intellectual capital, value added, company performance, Nigeria.

ABSTRAK

Kajian ini bertujuan untuk mengkaji hubungan antara kecekapan modal intelek (IC) dengan prestasi syarikat dan pendedahannya melalui sampel 117 buah syarikat di Nigeria dalam tempoh enam tahun. Banyak kajian modal intelek di negara-negara maju memperlihatkan hubungan antara kecekapan modal intelek dan pendedahannya terhadap prestasi syarikat terutamanya melalui kelayakan pendidikan , latihan dan gaji bagi modal insan. Penyelidikan dan pembangunan (R & D), pengiklanan , jenama dan teknologi maklumat untuk modal struktur telah digunakan untuk menyelidik nilai tambah kecekapan IC . Walau bagaimanapun, di negara-negara membangun seperti Nigeria, sangat sedikit perhatian diberikan terhadap kecekapan IC dan pendedahannya berhubung dengan prestasi syarikat. Oleh itu , untuk memperluaskan kajian kecekapan modal intelek sedia ada, kajian ini turut melibatkan pakej kebajikan , kos pampasan dan harta intelek (paten) dalam meneliti IC. Data sekunder (Laporan tahunan) yang diperoleh daripada empat belas sektor, diuji melalui analisis regresi berganda. Hasil kajian memberikan bukti empirikal bahawa kecekapan intelek adalah penting dan berkait secara positif dengan prestasi syarikat. Seterusnya, kajian ini mendedahkan bahawa terdapat perbezaan yang ketara dalam amalan pendedahan modal intelek syarikat yang dijadikan sampel . Oleh itu , disyorkan agar dasar-dasar yang mampu meningkatkan kemampuan pekerja dan struktur organisasi perlu diberi keutamaan. Kajian ini memberikan sumbangan besar dalam bidang modal intelek. Pertama, kerana kajian ini memperkenalkan kecekapan modal intelek syarikat di Nigeria dan ciri-ciri pendedahannya . Kedua, memperluaskan kaedah VAIC Awam (2004 , 2000) dengan memasukkan pakej kebajikan, kos pampasan dan harta intelek sebagai pemacu nilai. Akhir sekali dan yang paling penting , merupakan ilmu paling berguna kepada penyelidik kerana ini adalah kajian pertama yang melibatkan kecekapan modal intelek dan pendedahannya secara serentak dalam empat belas sektor ekonomi di Nigeria .

Kata kunci: modal intelek , nilai tambah , prestasi syarikat , Nigeria

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LIST OF ABBREVIATIONS

CIS -	Change in Sales
FASB -	Financial Accounting Standard Board
GAAP -	Generally Accepted Accounting Principles
HC -	Human Capital
IAS -	International Accounting Standard
IC -	Intellectual Capital
ICD -	Intellectual Capital Disclosure
IASB -	International Accounting Standard Board
IFAC -	International Federations of Accountant
IFAS -	International Financial Accounting Standard
IFRS -	International Financial Reporting Standard
IT -	Information Technology
MV -	Market Value
NASB -	Nigerian Accounting Standard Board
RC -	Relational Capital
R&D -	Research and Development
ROE -	Return on Equity
ROA -	Return on Assets
SAS -	Statement of Accounting Standard
SC -	Structural Capital
VAIC -	Value Added Intellectual Coefficient

CHAPTER ONE

1.1 Introduction

In a knowledge-based and an increasingly more competitive economy, a company's Intellectual Capital (IC) is a fundamental determinant of its success. Intellectual capital is the combination of knowledge-based assets and intangible assets of a company which includes its patents, brand names, employee's skills, trade secret, technologies and information about consumers and supplies that has been utilised in order to create wealth by producing a higher value asset (Stewart, 1997). In the last two and half decades, the importance of intellectual capital has increased tremendously, specifically in the developed countries.

This is because the world at large has experienced a drastic change in the form of emerging wealthy business and nations (Arenas & Lavanderos, 2008). Both companies and governments shifted their focuses from tangible assets to intellectual capital (IC) as differentiators for the sustainable competitive advantage of businesses and nations (Sarmadi, 2013). The reason for paradigm shift is that IC assets contribute to shareholder value more than tangible assets. And as such companies must cope with the shift and take full advantage of IC resources to improve their performance and competitive advantage (Carrell, 2007). Of course, scholars have favoured this contention by asserting that intellectual capital has become one of the primary sources of competitive advantage for companies (Bontis 1998 & Edvinson, 1997).

However, traditional financial statements of companies do not reflect true disclosure of intellectual capital. In few instances, traditional intangible assets (e. g. research and development, good will and other internally developed assets) are recognised in the annual accounts of companies, but these assets are defined narrowly (Gallego &

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REFERENCE

- Abdel-khalil, A. R. (2003). Self-Sorting, Incentive Compensation, and Human-Capital Assets. *European Accounting Review*, 12(4), 661-697.
- Abdolmohammadi, M. J. (2005). Intellectual capital disclosure and market capitalization. *Intellectual Capital*, 6 (3), 397-416.
- Abdulai, M-S. M. & Kwon, Y. (2012). Intellectual capital and firm Performance: An empirical study of Software firms in West Africa. *The African Journal of Information System*, 4(1), 1-30.
- Abeysekera, I. & Guthrie, J. (2005). Annual reporting trends of intellectual capital in Sri Lanka. *Critical Perspectives on Accounting*, 16(3), 151-163.
- Abeysekera, I. (2007). Intellectual capital reporting between a developing and developed nation: *Journal of Intellectual Capital*, 8(2), 329-345.
- Abhayawansa, S., & Abeysekera, I. (2009). Intellectual capital disclosure from sell-side analyst perspective. *Journal of intellectual Capital*, 10 (2), 294-306.
- Aboody, D. & Lev, B. (1998). The value-relevance of intangibles: the case of software capitalization. *Journal of Accounting Research*, 36, 161-191.
- Ahangar, R. G. (2011). The relationship between intellectual capital and financial performance: An empirical investigation in an Iranian company. *African Journal of Business Management*, 5(1), 88-95.
- Akwezilo, E. O. (1994). *Research Methodology and Statistics*. Enugu: Nuel Centi (Nig) Publisher

- Albino, V., Garavelli, A., C. & Schiuma, G. (2001). A metric for measuring knowledge codification in organisation learning. *Technovation*, 21(7), 413-422.
- Alipour, M. (2012). The effect of intellectual capital on firms' performance: an investigation of Iran Insurance Companies. *Measuring Business Excellence*, 16(1), 53-66.
- Al-Ma'ani, A. I., & Jeradat, N. M. (2010). Impact of Human Capital on the organization Performance. *Interdisciplinary Journal of Contemporary Research Business*, 2(4), 63-73.
- Al-Mamun, S. A. (2009) Human Resource Accounting Disclosure of Bangladeshi Companies and Its Association with Corporate Characteristics: *BRAC University Journal*, 6(1), 35-43.
- Al-Twaijry, A. (2009). Intangible assets and future growth: evidence from Japan. *Asian Review of Accounting*, 17(1), 23-39.
- Amir, E., & B. Lev. (1996). 'Value-relevance of nonfinancial information: The Wireless communications industry'. *Journal of Accounting and Economics* 22 (1-3): 3-30.
- Amir, E., Lev, B., & Sougiannis, T. (2003). Do financial analysts get intangibles? *European Accounting Review*, 12(4) 635-659.
- Andriessen, D. (2004). *Making Sense of Intellectual Capital: Designing a Method for the Valuation of Intangibles*, Burlington, MA: Elsevier Butterworth Heinemann.
- Anghal, I. (2008). Intellectual Capital and Intangible assets analysis and valuation: *Theoretical and Applied Economics*, 2, 75-84.
- Antola, J., Kujansivu, P. & Lonnqvist, A. (2005). Management accounting for intellectual capital. Proceedings for the 7th Conference on Manufacturing

- Accounting Research, Tampere, May 30- June 1.
- Appuhami, B. A. (2007). The impact of Intellectual Capital on Investors' Capital Gains on Shares: An Empirical Investigation of Thai Banking, Finance & Insurance Sector. *International Management Review*, 3(2), 14-25.
- Austin, L. (2007). Accounting for Intangible Assets. *Business Review* 9(1), 62-72.
- Aduwa-Ogiegbaen, S. E. & Iyamu, E. O. S . (2005). Using Information and Communication Technology in Secondary Schools in Nigeria: Problems and Prospects, *Educational Technology and Society*, 8 (1), 104-112.
- Aral, S., Bronjolifsson, E., & Van Alstyne, N. W. (2008). Effective Managing the 21st Century Knowledge Workers, *Journal of Knowledge Management Practice*, 9 (1), 412-425.
- Arenas, T. & Lavanderos, L. (2008). Intellectual Capital: Object or Process? *Journal of Intellectual Capital*, 9(1), 77-85.
- Beine, M., Docquier, F., & Rapoport, H. (2008). Brain Drain and Human Capital formation in developing countries: Winner and Losers, *The Economic Journal*, 118 (April), 631- 652.
- Ballow, J., Burgman, R., Roos, G. & Molnar, M. (2004). *A New Paradigm for Measuring Shareholder Value*, Accenture Institute for Higher Business Performance, Wellesley, MA.
- Barney, B. J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal*

of Management, 17(1), 99-120.

Bartlett, J., E. Kotrilik, J., W. & Higgins, C. C. (2001). Organizational Research: Determining Appropriate Sample Size in Survey Research, *Information Technology, Learning and Performance Journal*, 19(1), 43-50.

Baxter, L. A. & Babbie, E. (2004). *The Basics Communication Research*. Canada: Thomson Learning Academic Resource Center.

Beattie, V. & Smith, S., J. (2010). Human capital, value creation and disclosure. *Journal of Human Resource Costing & Accounting*, 14(4), 262-285.

Beattie, V., McInnes, B., Fearnley, S., (2004). A methodology for analyzing and evaluating narratives in annual reports: a comprehensive descriptive profile and metrics for disclosure quality attributes. *Accounting Forum*, 28, 205-236.

Berry, J. (2004). *Tangible Strategies for Intangible Assets*. McGraw-Hill, New York, NY.

Bharadwaj, A S., Bharadwaj, S. G. & Konsynski, B. R. (1999). ‘Information Technology Effects on Firm Performance as Measured by Tobin’s q’. *Management Science*, 45 (7) 1008-1024.

Black, B. S., Jang, H., and Kim, W. (2006). ‘Does Corporate Governance Predict Firms’ Market Values? Evidence from Korea.’ *The Journal of Law, Economics*

- & Organisation, 22, 366-413.
- Boesso, G., & Kumar, K. (2007). Drivers of corporate voluntary disclosure. *Accounting, Auditing & Accountability Journal*, 20 (2), 269-296.
- Boisot, M. (1998). *Knowledge Assets: Securing Competitive Advantage in the Information Economy*. Oxford University Press.
- Boisot, M. (2002). The creation and sharing of knowledge. In C. W. Choo & N. Bollen, L., Vergauwen, P., & Schnieders, S. (2005). Linking Intellectual Capital and Intellectual Property to Company Performance. *Management Decision*, 43(9), 1161-1185.
- Bontis, N. (1996). There's a price on your head: managing intellectual capital strategically. *Business Quarterly*, 60(4), 40-47.
- Bontis, N. (1998). Intellectual capital: an exploratory study that develops measures and models. *Journal of Management Decision*, 36(2), 63-76.
- Bontis, N. (1999). Managing organisational knowledge by diagnosing intellectual capital: framing and advancing the state of the field. *International Journal of Technology Management*, 18(5), 433-462.
- Bontis, N. (2001). Assessing Knowledge Assets: a review of the models used to measure Intellectual Capital, *International Journal of Management Review*, 3 (1), 41-60.
- Bontis, N. (2002). Intellectual capital disclosure in Canadian corporations. *Journal*

of Human Resource Costing & Accounting, 14, 9-20.

Bontis, N. (2003). Intellectual capital disclosure in Canadian corporations.

Journal of Human Resource Costing & Accounting, 7(1), 9-20.

Bontis, N., & Fitz-enz, J. (2002). Intellectual capital ROI: a causal map of human Capital antecedents and consequents. *Journal of Intellectual Capital* , 3(3), 223-247.

Bontis, N., Dragonetti, N. C., Jacobson, K., & Roos, G. (1999). The knowledge Toolbox: A Review of the Tools Available To Measure and Manage Intangible Resources. *European Management Journal* , 17 (4), 1-20.

Bornemann, M. (1999). Potential of Value Systems According to VAICTM Method. *International Journal of Technology Management* , 18(5/6/7/8), 463-475.

Bowan, E. H. (1984). Content analysis of annual reports for corporate strategy and risk. *Interface*. 14, 61-71.

Bozzolan, S. Favotto, F. & Ricceri, F. (2003). Italian annual intellectual capital disclosure. *Journal of Intellectual Capital*, 4(4), 543-558.

Branco, M., C. Delgado, C. Sa, M. & Sousa, C. (2010). An analysis of intellectual capital disclosure by Portuguese companies. *EuroMed Journal of Business*, 5(3), 258-278.

Brannstrom, D. & Giuliani, M. (2009). Accounting for Intellectual Capital: a comparative analysis, *Journal of Information and Knowledge Management System*, 39(1), 68-79.

- Brennan, N. (2001). Reporting intellectual capital. *Accounting, Auditing & Accountability Journal*, 14 (4), 423-436.
- Brooking, A., Board, P. & Jones, S. (1998). The predictive potential of intellectual capital. *International Journal of Technology Management*, 16(1-3), 115-125.
- Bukh, P. N. (2003), The relevance of Intellectual disclosure: a paradox? *Accounting, Auditing & Accountability Journal*, 16 (1) 49-56.
- Bukh, P., N. & Johanson, U. (2003). Research and Knowledge Interaction: Guidelines for Intellectual Capital Reporting, *Journal of Intellectual Capital*, (4), 576-587.
- Buren, M. E. (1999). A yardstick for Knowledge Management. *Journal of Training and Development*, 53 (5), 71-78.
- Caddy, I. (2002). Issues Concerning intellectual Capital Metrics and measurement of Intellectual Capital. *Singapore Management Review* , 24 (3), 77- 88.
- Calisir, F., Gumussoy, C. A., Bayraktaroglu, A. & Denuz, E. (2010). Intellectual capital in the quoted Turkish ITC sector. *Journal of Intellectual Capital*, 11(4), 537-553.
- Calisir, F., Gumussoy, C. A., Cirit, F., & Bayraktaroglu, A. E. (2011). Intellectual Capital in Development and Investment Banks of Turkey. *Proceedings of the 2011 international Conference on Industrial Engineering and Operations Management*, (pp. 1092-1097). Kuala Lumpur, Malaysia.

Cantrell, S. Benton, J. M., Laudal, T. & Thomas, R. J. (2006). Measuring the Value of Human Capital Investments: The SAP Case, *Strategy and Leadership*, 34(2), 43-52.

Cantu, F., Bustani, A., Molina, A. & Moreira, H. (2009). A knowledge-based development model: *The research chairs strategy, Journal of knowledge Management*, 154-170.

Carmel, E. (2003). The new software exporting nations: Success Factors, *The Electronic Journal on Information Systems in Developing Countries*, 14 (4),1-12.

Carrell, J. (2007). Intellectual capital: An inquiry into its acceptance, *Business Renaissance Quarterly*, 2(1), 67-96.

Cavana, R., Y. Delahaye, B., L. & Sekaran, U. (2001). Applied Business Research: Qualitative and Quantitative Methods. John Wiley & Sons, Australia, Ltd.

Ceccagnoli, M., Arora, A., Cohen, W., & Vogt, W. (1998). R&D, Knowledge Spillover, and Competition among Firms with Asymmetric Technological Capabilities, Working Paper, Carnegie, Mellon University.

CFO Research Service & Mercer Human Resource Consulting (2003), Human Capital Management: The CFO's Perspective, February.

Chaminade, C. & Johanson, U. (2003). Can guideline for intellectual capital management and reporting be considered without addressing culture

- differences. *Journal of Intellectual Capital*, 4(4), 528-542.
- Chan, L., K. Lakanishok, J. & Sougiannis, T. (2001). The stock Market valuation of Research and Development Expenditures. *Journal of Finance*, LVI (6), 2431-2456.
- Chang, K. H. (2009). Impact of intellectual capital on organisational performance: an empirical study of companies in Hong Seng Index (part1). *The Learning Organization*, 16(1), 4-21.
- Chang, S. L. (2007). Valuing Intellectual Capital and Firms' Performance: Modifying Value Added Intellectual Coefficient (VAICTM) in Taiwan IT industry. Unpublished Doctoral dissertation, Golden Gate University, San Francisco.
- Chang, W. S., & Hsieh, J. J. (2011). Intellectual Capital and Value Creation- Is Innovation Capital a Missing Link? *International Journal of Business and Management*, 6 (2), 3-12.
- Chartered Institute of Personnel and Development (2003) Human Resource and Value, Retrieved from www.cipd.co.uk
- Chen, J., Zhu, Z., & Xie, H. Y. (2004). Measuring intellectual capital: a new model and empirical study. *Journal of Intellectual capital* , 5 (1), 195-212.
- Chen, M., Cheng, S., & Hwang, Y. (2005). An empirical investigation of the relationship between intellectual capital and firms' market value and financial performance. *Journal of Intellectual Capital* , 6(2), 159-176.
- Chen, S. & Dodd, J., L. (2001). Operating Income, Residual Income and EVA:

Which Metric Is More Value Relevant? *Journal of Managerial Issues*, 13(1), 65-89.

Cheng, M., Lin, J., Hsiao, T, & Lin, T. (2010). Invested resource, competitive intellectual capital, and corporate performance. *Journal of Intellectual Capital*, 11(4), 433-450.

Coakes, S. J. & Ong, C. (2011). SPSS Version 18.0 for Windows: Analysis Without Anguish, John Wiley & Son Australia Ltd.

Cohen, S., & Kaimenakis, N. (2007). Intellectual Capital and Corporate Performance in Knowledge-intensive SMEs. *The Learning Organization*, 14(3), 241-262.

Creswell, J. W., Vicki, L. & Clark, P. (2007). *Research Design Qualitative, Quantitative, and Mixed Methods Approaches* (3rd ed). Thousand Oaks: SAGE Publications.

Delery, J. E. (1998). Issues of fit in Strategic Human Resource Management: Implications for research. *Human Resource Management Review*, 8, 289-310.

Dell Publishing Group, New York, NY.

Dewan, S. & Min, C. (1997). The Substitution of Information Technology for Other Factors of Production: A Firm Level Analysis. *Management Science*, 43(12), 1660-1675.

Durst, S. (2008). The Relevance of Intangible Assets in German SMEs, *Journal of Intellectual Capital*, 9(3), 410-432.

Edvinsson, L. (1997). Developing Intellectual Capital at Skandia, Long Range Planning 30 (June), 366-373.

Edvinsson, L., & Malone, M. (1997). Intellectual Capital: Realising Your Company's true Value by finding its Hidden Brainpower. *Journal of Human Resource Costing Accounting*, 4 (1), 21-33.

Edvinsson, L., & Sullivan, P. (1996). Developing a Model for Managing Intellectual Capital. *European Management Journal*, 14(4), 356-364.

Eisenherdt, K. M., & Martin, J. A. (2003). Dynamic capabilities: what are they? *Strategic Management Journal*, 21(10-11), 1105-1121.

Eisner, R. (1992). Deficits, which, how, much, and so what? *The American Economic Review*, 82, 295-298.

Engstrom, T. E., Westnes, P., & Westnes, S. F. (2003). Evaluating intellectual capital in the hotel industry. *Journal of Intellectual Capital*, 4 (3), 287-303.

Ethiraj, S. E., Kale, P., Krishnan, M. S., & Singh, J. (2005). Where Do Capabilities Come From and How Do They Matter? A Study in the Software Services Industry, *Strategic Management Journal*, 26, 25-45.

Fama, E., F. & French, K., R. (1996). Multifactor explanations of asset pricing anomalies. *Journal of Finance*, 51, 55-84.

Financial Accounting Standards Board, Statement No 2, Accounting for Research & Development Costs, October, 1974. Retrieved on 22nd October, 2011, from

www.fasb.org/home

Financial Accounting Standards Board, Statement No 86, Financial Accounting & Reporting by Oil & Gas Producing Companies, December, 1977. Accessed on 22nd October, 2011, from www.fasb.org/home

Firer, S. & Williams, S. M. (2005). Firm Ownership Structure and Intellectual Capital Disclosure, *South African Journal of Accounting Research*, 19(1), 1-18.

Firer, S., & Williams, S. M. (2003). Intellectual Capital and Traditional Measures of Corporate Performance. *Journal of Intellectual Capital*, 4(3), 348-360.

Flamholtz, C. (1995). Managing Organizational Transitions: Implications for Corporate and Human Resource Management. *European Management Journal*, 13(1), 39-51.

Flamholtz, E. (2005). Conceptualizing and measuring the economic value of human capital of the third kind: Corporate culture. *Journal of Human resource Costing & Accounting*, 9 (2), 78-93.

Freeman, R. E., & McVea, J. (2002). *A Stakeholder Approach*, Boston: Pitman.

Frees, E. W. & Kim, Jee-S. (2007). *Longitudinal and Panel Data in T. Rudas (Ed.), Handbook of probability theory with application in the social, behavioural and educational sciences, business management and law*, Sage.

Fukui, Y., & Ushijima, T. (2007). 'Corporate Diversification, Performance, and Restructuring in the Largest Japanese Manufacturers' *Journal of the Japanese and International Economies*, 21, 303-323.

Gallego, I. & Rodriguez, L. (2005). Situation of Intangible Assets in Spanish Firms: an empirical analysis, *Journal of Intellectual Capital*, 6(1), 105-126.

Garcia-Meca, E. (2005). Bridging the gap between disclosure and use of intellectual capital information. *Journal of Intellectual Capital*, 6(3), 427-440.

Gerpott, T., J. Thomas, S., E. & Hoffman, A., P. (2008). Intangible asset disclosure in the telecommunications industry. *Journal of Intellectual Capital*, 9(1), 37- 61.

Ghosh, D., & Wu, A. (2007). Intellectual capital and capital markets: additional evidence. *Journal of Intellectual Capital* , 8(2), 216-235.

Ghosh, R., R. & Ostry, J. D. (1997). Macroeconomic uncertainty, precautionary saving and the current account, *Journal of Monetary Economic*, 40, 121-139.

Ginoglou, D., Tahinakis, P., Mylonakis, J., Protogeros, N. & Koumpis, A. (2009). Accounting Issues on the Measurement and Bookkeeping of R&D Expenditure within European Research Area, *The ICFAI Journal of Accounting Research*, III(2), 30-46.

Gjerde, O., Knivsfla, K., & Saettem, F. (2007). Evidence on Competitive Advantage and Superior Stock Market Performance, Working Paper, Norwegian School of Economics and Business Administration.

Goh, P. C. & Lim, K. P. (2004). Disclosing Intellectual Capital in Company Annual Reports: Evidence from Malaysia. *Journal of Intellectual Capital*, 5(3),

500-510.

Gosling, L. & Edwards, M. (1995). *Selecting a unit of analysis*. Retrieved on the 12th March, 2011, from: <http://allpsych.com/researchmethods/variables.html>

Green, A. (2008). Intangible asset Knowledge: The conjugality of business intelligence (BI) and business operational data. *The Journal of Information and Knowledge Management System*, 38(2), 184-191.

Green, A., & Ryan, J., C. H. (2005). A framework of intangible valuation areas (FIVA): Aligning business strategy and intangible assets. *Journal of Intellectual Capital*, 6(1), 43-52.

Greenhalgh, C. & Roger, S. (2006). Value of Innovation: The Interaction of Competition, R&D and IP, *Research Policy*, 35, 562-580.

Griliches, Z. (1990). ‘Patent Statistics as Economic Indicators: A Survey’. *Journal of Economic Literature*, 2, 1661-1707.

Gu, F. & Li, J., Q. (2010). The Value-Relevance of Advertising: Evidence from Pharmaceutical Industry, *Journal of Accounting, Auditing & Finance*, 5(2), 85-120.

Guo, R. Lev, B. & Zhau, N. (2004). Competitive of disclosures by biotech IPOs. *Journal of Accounting Research, (supplement)*, 319-355.

Guthrie, J. & Petty, R., (2000). Intellectual capital literature review: Measurement, reporting and management. *Journal of intellectual Capital*, 1 (2), 155- 176.

Guthrie, J. (2001). The management, measurement and the reporting of intellectual capital. *Journal of Intellectual Capital* , 2 (1), 27-41.

Guthrie, J. Petty, R. Ferrier, F. & Wells, R. (2000). There is no accounting for intellectual capital in Australia: a review of annual reporting practices and the internal measurement of intangibles. *In proceeding of the OECD Symposium on measuring and reporting of intellectual capital, 9-11.*

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2010). *Multivariate Data Analysis* (7th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.

Halim, S. (2010). Statistical analysis on the intellectual capital statement. *Journal of Intellectual Capital*, 11(1), 61-73.

Hall, B. H., Jaffe, A. B., Trajtengerg, M. (2005). Market Value and Patent Citations, *Rand Journal of Economics*, 36, 16-38

Hall, B., Z. Griliches, Z. & Husman, J. (1986). Patents and R and D: Is there a lag? *International Economics Review*, 27, 265-283.

Hall, R. (1992). The strategic analysis of intangible resource: *Strategic Management Journal*, 13, 135-144.

Hamzah, N. & Ismail, M. N. (2008). The Importance of Intellectual Capital Management in the Knowledge-Based Economy, *Contemporary Management Research*, 4(3), 237-262.

Hamzah, N., & Isa, R. M. (2010). Intellectual and Social Capitals Development: A case in Malaysian's ICT Companies. *International Journal of Business and Management*, 5 (1), 53-61.

Healy, P. M. & Palepu, K. G. (2001). Information asymmetry, corporate disclosure and the capital markets: a review of the empirical disclosure literature. *Journal of Accounting and Economic*, 31, 405-440.

Heeks, R. & Nicholson, B. (2002). Software Export Factors and Strategies in Developing and Transitional Economies, University of Manchester, Institute of Development Policy and Management. Paper Number 2002-12, retrieved July, 2013 from http://idpm.man.ac.uk/wp/di_wp12.htm.

Hekimian, J. S., & Jones, C (1967). Put people on your balance sheet. *Harvard Business Review*, 43(1), 105-113.

Henkel, J. & Reitzig, M. (2007). Patent Sharks and the Sustainability of Value Destruction strategies, Working Paper, Munich University of Technology, Faculty of Economics and Business Administration, and London Business School.

Hermanson, R. H. (1964). *Accounting for Human Assets*: Bureau of Business and Economic Research, Graduate School of Business Administration, Michigan State University East Lansing.

Hernandez, J., G. & Noruzi, M. R. (2010). How Intellectual Capital and Learning Organization Can Foster Organizational Competitiveness? *International Journal of Business and Management*, 5(4), 183-193.

Hirschey, M., Richardson, J., & Scholtz, S. (1998). Value Relevance of Nonfinancial Information: The Case of Patent Data. University of Arkansas and university of Kansas.

Holland, J. (2009) Looking behind the veil: Invisible Corporate intangibles, stories, structure and the contextual information content of disclosure. *Qualitative Research in financial market*, 1 (3), 152-187.

Huseman, C. & Goodman, J., P. (1999). *Leading with Knowledge: The nature of Competition in the 21st Century*. Sage, Beverly Hills, CA.

Hussin, W. N. W. & Salim, B. (2010). *Disclosure on the adoption of Performance-based Pay, Remuneration Committee and Executive Compensation: Evidence from Malaysia*. Proceeding in Accounting and Finance Association of Australia and New Zealand Conference, Chirstchurch, New Zealand.

International Accounting Standard Board (2004) (revised). IAS 38 Intangible Assets.

Israel, G. D. (1992). Determining Sample Size: Program Evaluation and Organizational Development, IFAS, University of Florida> PEOD-6. Accesses In May, 2011 from http://edis.ifas.ufl.edu/scripts/htm/gen.exe?DOCUMENT_PD006.

Itami, H. (1987). *Mobilising Invisible assets*. Cambridge, MA: Harvard University Press.

Jeanjean, T., & Stolowy, H. (2009). Determinants of Board members' financial expertise: empirical evidence from France, *The International Journal of Accounting*, 44, 378-402.

Johanson, U. Martensson, M. & Skoog, M. (2001). Mobilising change through the management control of intangibles: *Accounting, Organizations and Society Journal*, 26 (7/8) 713-733.

Joshi, A. & Hanssens, D., M. (2010). The Direct and Indirect Effects of Advertising Spending on Firm Value. *Journal of marketing* 74(January), 20-33.

Kallapur, S. & Kwan, S. (2004). The Value Relevance and Reliability of Brand Assets Recognized by U.K Firms, *The Accounting Review*, 78(1), 151-172.

Kamarun M., Rohaida, A., L. Robiah, A. B., Wan, N., W. & KuNor, I. (2006). The value relevance of R&D expenditure: experience from Malaysia. *IJUM Journal of Economics and Management*, 14(2), 205-225.

Kamath, G. B. (2007). The Intellectual capital and corporate performance in Indian pharmaceutical industry. *Journal of Intellectual Capital*, 9(4), 684-704.

Kamukama, N., Ahiauzu, A., & Ntayi, J. M. (2010). Intellectual capital and performance: testing interaction effects. *Journal of Intellectual Capital*, 11(4), 554-574.

Kaplan, R. S., & Norton, D. P. (2001). Transforming the Balanced Scorecard from Performance Measurement to Strategic Management: Part 1, *Accounting Horizons*, 15(1), 87-104.

Karioti, V. & C. Caroni. (2002) Detecting an innovative outliers in a set of time series, *Computational Statistics and Data Analysis*, 46, 561-570.

Karioti, V. (2007). The Analysis of Outliers in Statistical Data: THALE Project No. xxxx. Retrieved online <http://karioti.poutliers.pdf>(SECURED).

Kaufmann, L., & Scheider, Y. (2004). Intangibles: A synthesis of current research. *Journal of Intellectual Capital*, 5 (3), 366-388.

Kavida, V., & Sivakoumar, N. (2009). Intellectual Capital: A strategic Management Perspective. *Journal of Knowledge Management*, VII (5&6), 55-69.

Kline, R. B. (2005). Principles and practices of structural equation modelling (2nd ed.). New York: Guilford.

Kouhy, R., Veddy, R., Yoshikawa, T. and Innes, J. (2009). Human resource policies management accounting and organizational performance: *Journal of Human Resource Costing & Accounting*, 13 (3), 245-263.

Krippendorff, K. (1980), *Content Analysis: An Introduction to Its Methodology*, Sage, London.

Kujansivu, P., & Lonnqvist, A. (2007). Investigating the value and efficiency of intellectual capital. *Journal of Intellectual Capital*, 8 (2), 272-287.

Kumar, R. (1996). *Research methodology: A step-by step guide for beginners*. Melbourne: Longman Australia.

Lajili, K., & Zeghal, D. (2006). Market Performance Impacts of Human Capital Disclosures. *Journal of Accounting and Public Policy*, 25(2), 171-194.

Landes, W. M., & Posner, R. A. (1987). Trademark law: An economics perspective, *Journal of law and Economics*, 30 (2), 265-309.

Lang, M., H. & Lungholm, R., J. (1996). Corporate disclosure policy and analyst behaviour. *The Accounting Review*, 71(4), 467-492.

Lanjouw, J. O., Pakes, A. & Putnam, J. (1998). How to Count patents and Value Intellectual Property: The Uses of patent and Renewal and Application Data, *The Journal of Industrial Economics*, XLVI (4), 405-432.

Latin, J., J. Douglas, C. & Green, P. E. (2003). *Analyzing Multivariate Data*, Canada, Thomson Learning, Inc.

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

Lev, B., & Sougniannis, T. (1996). The capitalisation, Amortisation and value Relevance of R&D. *Journal of Accounting Review and Economics*, 21, 107-138.

Li, J., Pike, R. & Haniffa, R. (2006). Intellectual Capital Disclosure and Corporate Governance Structure in UK Firms. *Accounting and Business Research*, 38(2), 137-159.

Lichtenberg, F. R. (1995). The Output Contributions of Computer Equipment and Personnel: A Firm Level Analysis. *Economic Innovations and New Technology*, 3, 201-217.

Lim, L. K. and Dallimore, P. (2004). Intellectual Capital: Management Attitudes in Service Industries: *Journal of Intellectual Capital* 5(1), 181-194.

Lin, G., T. R. & Tang, J., Y. H. (2009). Appraising Intangible Assets from the Viewpoint of Value Drivers. *Journal of Business Ethics*, 88, 679-689.

Lindblou, C. K. (1994). *The implications of organizational legitimacy for corporate social Performance and disclosure*. Paper presented at the Critical Perspectives on Accounting Conference.

Lingle, J. & Schiemann, W. (1996). From Balaced Scorecard to Strategic Gauges:

- Is Measurement Worth It? *Management Review*, 85, 56-61.
- Lopes, A., B & Alencar, R., C. (2008). Disclosure and Cost of Equity Capital in Emerging Markets: The Brazilian Case. Retrieved on 1st November, 2010 from <http://papers.ssm.com/sol=109900>
- Ludmila, S., Unerman, J., & Guthrie, J. (2008). Corporate Reporting of Intellectual Capital: Evidence from UK Companies, *The British Accounting Review*, 4, 297-313.
- Luthy, D. H. (1998). *Intellectual capital and its measurement*. Paper presented at the Asian Pacific Interdisciplinary Research.
- Lynn, B. (1998). Intellectual capital. *CMA Magazine*, 72(1), 10-15.
- Madhulika, S. & Vivek, P. K. (2010). The Emerging Business Models in the Knowledge Economy: Its impact on Society and Government, *Advances in Managements*, 3(8), 23-33.
- Maditinos, D., Chatzoudes, D., Tsairidis, C., & Theriou, G. (2011). The impact of intellectual capital on firms' market value and financial performance. *Journal of Intellectual Capital*, 12(1), 132-151.
- Mahamad, T. & Salman, R. T. (2011). Intangible Disclosure of Nigerian Companies and Its Association with Corporate Characteristics. *Ilorin Journal of Business and Social Sciences*, 15(1), 1-14.
- Maheran, N., M. & Khairu, A., I. (2009). Intellectual capital efficiency and firm's

- performance study of Malaysian financial sectors. *International Journal of Economics and Finance*, 1(2), 206-212.
- Makki, M. A., & Suleman, A. L. (2009). Impact of Intellectual Capital on Return on Investment in Pakistani Corporate Sector. *Australian Journal of Applied Sciences*, 3(3), 2995-3007.
- Makki, M. A., Suleman, A., & Lodhi C. R. (2009). Impact of Intellectual Capital on Shareholders Earning. *Australian Journal of Basic Applied Sciences*, 3(3), 3386-3398.
- Marchant, G. & Barsky, N. P. (1997). Invisible but valuable? A framework for the measurement and management of intangible assets. Paper presented at 2nd World Congress on the Management of Intellectual Capital, Hamilton, on 21-23 January.
- Markoff, J., Shapiro, G. & Weitman, S., R. (1975). Toward the integration of content analysis and general methodology. *Sociological Methodology*, 6, 1-58.
- Marr, B., & Schiuma, G. (2001). Measuring and managing intellectual capital and knowledge assets in new economy organizations. In M. Bourne (Ed.), *Handbook of Performance Measurement*, Gee, London.
- Marr, B., & Schiuma, G., & Neely, A. (2004). The dynamics of value creation: mapping your intellectual performance drivers. *Journal of Intellectual Capital*, 5(2), 312-325.
- Martins, J. & Alves, S. (2010). The Impact of Intangible assets on Financial and

- Governance policies: A Literature review. *Portuguese Journal of Management Studies*, XL(1), 87-107.
- Mavridis, D. G. (2004). The Intellectual Capital Performance of the Japanese Banking Sector. *Journal of Intellectual Capital*, 4(4), 92-11.
- McConville, D. (1994). All about EVA. *Industry Week*, 18 April.
- McGregor, J., Tweed, D., & Pechi, R. (2004). Human capital in the new economy: devils bargain? *Journal of Intellectual Capital*, 5(1), 153-164.
- Mendonca, S., Pereira, T., & Godinho, M. (2004). Trademarks as an Indicator of Innovation and Industrial Change, *Research Policy*, 33, 1385-1404 MERITUM (2002). Measuring Intangible to understand and improve innovation management; Guideline for managing and reporting on intangibles. Meritum project, a TSER project, Meritum and E*know-net project work (2001-2003).
- Meritum, P. (2002). Guidelines for Managing and reporting on intangibles. *Fundacion Airtel-Vodafone*.
- Michael, A. H., Leonard, B., Katsuhiko, S., & Rahul, K. (2001). Direct and Moderating Effect of Human Capital Strategy and Performance in Professional Services Firms: A Resource-Based Perspective, *The Academy of Management Journal*, 44 (1), 13-28.
- Milne, M., J. & Adler, R., W. (1999). Exploring the reliability of social and environmental disclosures content analysis. *Accounting, Auditing &*

Accountability Journal, 12(2), 237-255.

Moeller, K. (2009). Intangible and Financial Performance: Causes and Effects, *Journal of Intellectual Capital*, 10(2), 224-245.

Mouritsen, J. (1998). Driving growth: Economic Value Added versus Intellectual Capital. *Management Accounting Research*, 9(4), 461-482).

Mouritsen, J., Larsen, H. T., & Bukh, P. N. (2001a). Intellectual Capital and the' Capable Firm': Narrating, Visualizing and Numbering for Managing knowledge. *Accounting, Organizations and Society*, 26(7), 735-762.

Mouritsen, J., Bukh, P. N., & Marr, B. (2004). Reporting on intellectual capital: why, what and how? *Measuring Business Excellence*, 8(1), 46-54.

Mouritsen, J., Larsen, H. T., & Bukh, P. N. (2005). Dealing with the knowledge economy: intellectual capital versus balances scorecard. *Journal of Intellectual Capital*, 6(1), 8-27.

Mouritsen, J., Larsen, H. T., Bukh, P. N., & Johanson, M. R. (2001b). Reading an intellectual capital statement: describing and prescribing knowledge management strategies. *Journal of Intellectual Capital*, 2(4), 359-383.

Muhanna, W., A. & Stoel, M., D. (2010). How Do Investors Value IT? An Empirical Investigation of the Value relevance of IT Capability and IT Spending

- Across Industries. *Journal of Information System*, 24(1), 43-66.
- Nasir, W., G. (2006). Understanding Intellectual Property Law: The Nigerian Perspective. Retrieved on 1st Nov., 2010 from
<http://dspace.unijos.edu.ng/handle/10485/310>
- Nazari, J. (2010). An Investigation of the Relationship between Intellectual capital components and Firm's Financial Performance. Retrieved on 12th of February, from <http://www.proquest.umicom.eserv.uum.edu.my/pqd.web>
- Neimark, M. (1995). *The hidden dimension of annual reports, sixty years of social conflict at General Motors*. Princeton, NJ: Markus Wiener.
- Nelson, R. R., & Winter, S. G. (1982). *An evolutionary theory of economy change*. Cambridge, MA: The Belknap Press of Harvard University Press.
- Neuman, W. L. (2007). *Basics of Social Research Qualitative and Quantitative Approaches*, (2nd ed.) Pearson Education, Inc. USA.
- Nigerian Accounting Standards Board (2006). Statement of Accounting Standard No 22, Accounting for Research & Development Costs.
- Nigerian Stock Exchange (2009). *The Nigerian Stock Exchange 2009 Factbook*. Lagos: The Nigerian Stock Exchange Press.
- Nixon, B. (1997). The Accounting Treatment of Research and Development Expenditure: Views of UK Company Accountants, *European Accounting*

Review, 6, 265-277.

Nunnally, J. C. & Bernstein, I. H. (1994). Psychometric Theory. (3rd ed.,) New York: McGraw-Hill.

Nwanmuo, A. N. (2008). An assessment of ASADEF's Campaign for Improved Cassava Varieties in Anambra State: A Development Communication Approach. *The Nigerian Journal of Communication*, 6, 80-103.

O'Brien, R. M. (2007). A Caution Regarding Rules Of Thumb for Variance Inflation Factors. *Quality & Quantity*, 41, 673-690.

O'Regan, P., O'Donnell, D., & Herman, M. (2001). Recognition and management of intellectual resource: preliminary evidence from indigenous Irish high technology firms. *Journal of European industrial Training*, 25(2/3/4), 130-141.

Okwy, P., O & Christopher, C., O. (2010). Human capital Accounting and its relevance to Stock Investment Decisions in Nigeria. *European Journal of Economics, Finance and Administrative Science*, 21, 64-76.

Olaofe, O. (2006) NASB Releases Two New Accounting Standards. Retrieved on 25 February, 2011 from
<http://www.ngex.com/business/public/newsinfo.php?nid=14>

Oliveras, L., L. Rodrigues, L. & Craig, R. (2006). Firm-specific determinants of

intangibles reporting: evidence from the Portuguese Stock Market. *Journal of Human Resources Costing and Accounting*, 10(1), 11-33.

Olivers, E., Gowthorpe, C., Kasperskaya, Y., & Perramon, J. (2008). Reporting Intellectual Capital in Spain. *Corporate Communication An International Journal*, 13 (2), 168-181.

Oloyo, R. A. (2001). *Fundamental of Research Methodology for Social and Applied sciences*. Ilaro: ROA Educational Press.

Olsson, B. (2005). Is HRCA a concept which summarizes the innovation work in the most intrinsic parts of firms during the last decades? *Journal of Human Resource Costing & Accounting*, 9 (1), 4-9.

Ordonez de Pablos, P. (2003). Knowledge management and organizational competitiveness: a framework for human capital analysis. *Journal of Knowledge Management*, 7(3), 82-91.

Ordonez de Pablos, P. (2004). Measuring and reporting structural capital: Lessons from European learning firm. *Journal of Intellectual Capital*, 5(4), 629- 647.

Organisation of Economic Cooperation Development (1999), OECD Observer; (Summer), 217/218.

Organisation of Economic Cooperation Development (2008), OECD, principles of Intangible assets, OECD, Paris.

Oswald, D., R. (2007). The determinants and Value Relevance of the Choice of

Accounting for research and Development Expenditures in the United Kingdom. *Journal of Business Finance & Accounting*, 35(1&2), 1-24.

Oswalf, D. & Zarowin, P. (2007). Capitalization of R&D and the informativeness of stock prices. *European Accounting review*, 16, 703-726.

Pablo, P. (2003). Intellectual Capital Reporting in Spain: a comparative view. *Journal of Intellectual Capital* 4(1), 61-81.

Pallant, J. (2003). SPSS Survival Manual: A step by Step Guide to Data Analysis using SPSS for Windows, (2nd ed.), McGram Hill, Open University Press.

Penrose, E. T. (1959). *The Theory of the Growth of the Firm*. John Wiley & Sons, New York, NY.

Peteraf, M., A & Barney, J., B. (2003). Unraveling the resource-based tangle. *Managerial and Decision Economics*, 24(4), 309-323.

Porter, M. E. (1985). *Competitive Advantage*. The Free press, New York, NY.

Prahalad, C. K., & Hamel, G. (1990). The core competence of the corporation. *Harvard Business Review*, 68(3), 79-91.

Priem, R., L. & Butler, J., L. (2001). Is the resource-based “view” a useful perspective for strategic management research? *Academy of Management*

Review, 26(1), 22-40.

Pulic, A. (1998). *Measuring the performance of intellectual potential in knowledge Economy*, Paper presented at the 2nd World Congress on Measuring and Managing Intellectual Capital, McMaster University, Hamilton.

Pulic, A. (2000). VAIC – an accounting tool for IC management. *International Journal of Technology Management*, 20(5-8), 702-714.

Pulic, A. (2004). Intellectual Capital- Does it create or Destroy Value? *Measuring Business Excellence* , 8(1), 62-68.

Pulic, A. Bornerman, M. (1999). The physical of intellectual capital of Austrian banks' retrieved online on 5th, May, 2011. www.vaic.on.net/download/Paper/Physical%20and%20intellectual%20Capital%20of%20Austrain%20Banks.htm.

Quinni, J. B. (1992). The Intelligent enterprise: a new paradigm. *Academy of Management Executive* 6(4), 48-63.

Rahim, A, Atan, R & Kamaluddin, A. (2011). Intellectual capital reporting in Malaysian Technology Industry, *Asian Journal of Accounting and Governance*, 2, 51-59.

Rajgapal, S., Venkatachalam, M., & Kotha, S. (2003). The Value Relevance of Network Advantages: The Case of E-Commerce Firms, *Journal of Accounting Research*, 40 (4), 135-162.

Reed, K. K., Lubatkin, M., & Srinivasan, N. (2006). Proposing and Testing an Intellectual Capital-Based View of the Firm. *Journal of Management Studies*, 43(4), 868- 893.

Riahi-Belkooui, 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.

Roos , G. & Roos, J. (1997). Measuring your company's intellectual performance. *Long Range Planning*, 30(3) 413-426.

Roos, J., Roos, G., Dragonetti, N. C., & Edvinsson, L. (1998). *Intellectual Capital: Navigating in the New Business Landscape*. New York: New York University Press.

Rosett, J. G. (2003). Labour Leverage, Equity Risk and Corporate Policy Choice, *European Accounting Review*, 12 (4), 699-732.

Saegchan, S. (2008). The Role of Intellectual Capital in Creating Value in the Banking Industry. Retrieved from
http://www.bus.tu.ac.th/uploadPR/ADV3_11_2008/9%pdf.

Saenz, J. (2005). Human capital indicators, business performance and market-to-book ratio. *Journal of Intellectual Capital*, 6(3), 374-384.

Salamudin, N., Bakar, R., Ibrahim, M. K., & Hassan, F. H. (2010). Intangible assets valuation in the Malaysian capital market. *Journal of Intellectual Capital*, 11 (3), 391-406.

Salman, R. T & Mahamad, T. (2011). *The relationship between Intellectual Capital Components and Corporate Performance in Nigeria: A Literature Review*. Paper presented in the 9th Asian Academy Conference in Penang, Malaysia, October, 607-614.

Salman, R. T. & Mahamad, T. (2012). Intellectual Capital Measurement Tools. *International Journal of Social Sciences Economics & Art*, 2(2), 19-26.

Salman, R. T., Mahamad, T. & Monsor, M. (2012). *Relationship between Intellectual Capital Components and Companies' Performance: An empirical investigation of Nigerian Companies*. Paper presented in 3rd Global Accounting and Organizational Changes Conference at Sunway Resort, Kuala Lumpur, 14-17th July, 2012.

Scheaffer, R., L. Mendenhall 111, W. & Ott, R. L. (2006). *Elementary Survey Sampling*, 6th ed., Thomson Brooks/cole, Canada.

Schmalensee, R. (1978). Entry Deterrence in the Ready-to-Eat Breakfast Cereal Industry, *Bell Journal of Economics*, 9, 305-327.

Schneider, A. & Samkin, G. (2008). Intellectual capital reporting by the New Zealand local government sector, *Journal of Intellectual Capital*, 9(3), 456-486.

Schneider, A. (2006). Intellectual capital reporting by the New Zealand local government sector. A thesis submitted in fulfilment of the requirements for the degree of Master of Management Studies in accounting, University of Waikato, Hamilton, 1-216.

Schofield, W. (1996). *Survey Sampling*; In: Sapsford, R. And Jupp, V. (Eds). Data Collection and Data Analysis. SAGE Publications in association with The Open University.

Seethamraju, C. (2000). *The value-relevance of Trademarks*, Working Paper, New York University.

Sekaran, U. & Bougie, R. (2009). *Research Methods for Business: A Skill Building Approach*, 5th ed., John Wiley & Sons Ltd, The Atrium, Southern Gate, Chichester, United Kingdom.

Seleim, A., Ashou, A., & Bontis, N. (2007). Human Capital and Organization performance: A study of Egyptian Software firms, *Emerald, Management Division*, 45 (4) 789-801.

Senge, P. M. (1980). *The Fifth Discipline: The Art and Practice of the Learning Organization*. London: Century Business.

Shah, A., Zulfigar, S., & Akbar, S. (2008). Value relevance of advertising expenditure: a review of the literature. *International Journal of Management Review*, 10(4), 301-325.

Shareef, F. & Davey, H. (2006). Accounting for Intellectual Capital: Evidence from listed English Football Clubs, *Journal of Applied Accounting Research*, 7 (3) 78 116.

Sharkie, R. (2003). Knowledge creation and its place in the development of sustainable competitive advantage. *Journal of Knowledge Management*, 7(1), 20-31.

Shiu, H. (2006). The Application of the Value Added Intellectual Coefficient to Measure Corporate performance: Evidence from Technological Firms. *International Journal of Management*, 23(2), 356-365.

Shukor, Z., A. Ibrahim, M., K. & Nor, H., M. (2009). The Value Relevance of Intangible Non-Current assets During Different Economic Conditions and Accounting Environments. *Malaysian Accounting Review*, 8(2), 43-66.

Skandia Value Scheme, 1998 retrieved from <http://skandia.pdf> on July, 2011.

Spender, J. C. (1996). Dynamic theory of the firm. *Strategic Management Journal*, 17, 45-62.

Sproull, N. (2002). Handbook of research Methods: *A guide for practitioners and students in the social sciences*, 2nd ed., Lanham, MD: Scarecrow Press.

Srinivasan, S. & Hanssens, D., M. (2009). Marketing and Firm Value: Metrics, Methods, Findings, and Future Directions. *Journal of Marketing Research*, XLVI

(June), 293-312.

Statement of Accounting Standard 3, 1984 retrieved from www.fasb.org/st on August, 2011.

Statement of Financial Accounting Concepts No 6, 1980. Retrieved from www.fas.org/jsp/FASB/page/sectionpage&cid=1176156317989.

Stewart, T. (1997), *Intellectual Capital: The New Wealth of Nations*: Doubleday.

Stewart, T. (1998). The e-business tidal wave: perspectives on business in cyberspace [Electronic Version], *Deloitte and Touche* Retrieved March 23, 2011 from <http://www.solveinteractive.com/kc/eBusTidaWave.pdf>.

Subramaniam, M., & Youndt, M. A. (2005). The Influence of Intellectual Capital on the types of Innovative Capabilities. *Academy of Management Journal*, 48(3), 450-463.

Sudarsanam, S., Sorwar, G. & Marr. B. (2006). Real Options and the Impact of Intellectual Capital on Corporate Value, *Journal of Intellectual Capital*, 7(3), 291-308.

Sullivan, P. (1998). *Profiting from Intellectual Capital: Extracting Value from Innovation*, John Wiley & Sons, New York, NY.

Sullivan, P. (2000). Value-Driven Intellectual Capital: How to covert Intangible Corporate Assets into Market Value: New York: John Wiley & Son.

Suraj, O. A. & Bontis, N. (2012). Managing Intellectual Capital in Nigerian Telecommunications Companies. *Journal of Intellectual Capital*, 13(2), 262-282.

Sveiby, K. E (2001). A knowledge-based theory of the firm to guide in strategy formulation. *Journal of Intellectual Capital*, 2(4), 344-358.

Sveiby, K. E. (1997). The Intangible Assets Monitor. *Journal of Human Resource Costing and Accounting*, 2(1), 73-97.

Sveiby, K. E. (2007). *Methods for Measuring Intangible Asset*. Retrieved on 22nd February, 2011 from
<http://www.sveiby.com/Portala/0/articles/IntangibleMethods.htm>.

Tabachanick, B., J. & Fidell, L.,S. (1996). *Using Multivariate Statistics*. HarperCollins Publishers, New York, NY.

Tan, H. P., Plowman, D., & Hancock, P. (2007). Intellectual capital and financial returns of companies. *Journal of Intellectual Capital*, 8 (1), 76-95.

Teece, D. J., Pisano, G. & Shuen, A. (1997). Dynamic capabilities and strategy management. *Strategic Management Journal*, 18(7), 509-533.

Teece, D., J. & Pisano, G. (1994). The dynamic capabilities of firms: an introduction. *Industrial and Corporate Change*, 3(3), 537-556.

Theeke, H., A & Mitchel, J. B. (2008). Financial implication of accounting for human resources using a liability model: *Journal of Human Resource Costing & Accounting*, 12 (2), 124-137.

Ting, I., W. K. & Lean, H., H. (2009). Intellectual capital performance of financial institutions in Malaysia. *Journal of Intellectual Capital*, 10(4), 588-599.

Tobin, J. (1969). A General Equilibrium Approach To Money Theory. *Journal of Money, Credit and Banking*, 1(1), 15-29.

Uadiade, O. M. & Uwugbe, U. (2011). Intellectual Capital and Business Performance: Evidence from Nigeria. *Interdisciplinary Journal of Research in Business*, 1(10), 49-56.

Usoff, C., A. Thibodeau, J. C., & Burnaby, P. (2002). The importance of intellectual capital and its effect on performance measurement systems. *Managerial Auditing Journal* , 17 (1/2), 9-15.

Vergauwen, P., Bollen, L., & Oirbans, E. (2007). Intellectual capital disclosure and intangible value drivers: an empirical study. *Management Decision*, 45 (7), 1163-1180.

Vergauwen, P., G. & Alem, F. J. (2005). Annual report IC disclosures in The Netherlands, France and Germany. *Journal of Intellectual Capital* , 6 (1), 80-104.

Wallace, R. S. O. (1988). Corporate Financial Reporting in Nigeria. *Accounting and Business Review*, 38(72), 352-362.

Walsh, J. P., & Ungson, G. R. (1991). Organizational Memory. *The Academy of Management Review*, 16(1), 57-91.

Wang, W., & Chang, C. (2005). Intellectual capital and performance in causal models: Evidence from the information technology industry in Taiwan. *Journal of Intellectual Capital*, 6(2), 222-236.

Wernerfelt, B. (1984). A resource based view of the firm. *Strategic Management Journal*, 5, 171-180.

White, G, Leg, A. & Tower, G. (2010). Drivers of Voluntary Intellectual Capital Disclosure in listed biotechnology companies. *Journal of Intellectual Capital*, 8(3), 517-537.

Whiting, R., & Miller, J. C. (2008). Voluntary Disclosure of Intellectual Capital in New Zealand annual report and the “hidden value”, *Journal of Human Resource Costing and Accountability*, 12 (1), 26-50.

Williams, S. M. (2001). Is Intellectual capital performance and disclosure Practices Related? *Journal of Intellectual Capital*, 2(3), 192-203.

Winter, S. G. (1987). *Knowledge and competence as strategic assets*. In Teece, D. (Eds.), *the Competitive Challenge – Strategies for Industrial Innovation and Renewal*, (pp. 159-184). Ballinger, Cambridge, MA.

Wolfe, M. S. (2009). Accounting for Intangibles and Managerial Information.

Retrieved on 3rd of March, 2011, from

<http://www.proquest.unicom.eserv.uum.edu.my/pqd.web>

Wong, M. & Gardner, C. (2005). *Intellectual Capital Disclosure: New Zealand evidence. Conference paper presented at the AFFANZ 2005 conference: Melbourne, Australia.*

Wright, P., M. Dunford, B., B. & Snell, S., A. (2001). Human resource and the resource based view of the firm. *Journal of Management*, 27, 701-721.

Wyatt, A. (2008). What financial and non-financial information on intangibles is value relevant? A review of the evidence. *Accounting and Business Research*, 38(3), 217-256.

Yahaya, K. A. (2007). Impact of Investment in Human Resource Training and Development on Employee Effectiveness in Nigerian Banks, *Journal of Social and Management Science*, 12, 185-197.

Yalam, A., & Coskun, M. (2007). Intellectual capital performance of quoted banks on the Istanbul stock exchange market. *Journal of Intellectual Capital*, 8(2), 256-171.

Yamane, T. (1973). Statistics: *An Introductory Analysis*: New York Harper & Row.

Yi, A & Davey, H. (2010). Intellectual capital disclosure in Chinese (mainland) companies. *Journal of Intellectual Capital*, 11(3), 326-347.