# THE INVESTIGATE OF RELATIONSHIPS BETWEEN INTELLECTUAL CAPITAL, PERFORMANCE AND CORPORATE SOCIAL RESPONSIBILITY EVIDENCE FROM TEHRAN STOCK EXCHANGE

**Babak Jamshidinavid[1], Mojtaba Pourmazaheri[2] and Mehrnegar Amiri[3]**

*Abstract: In the recent years many researchers investigate relationships between a company's financial performance and corporate social responsibility or intellectual capital. But this study investigates whether there is a relationship between intellectual capital and corporate social responsibility disclosure. The method uses hypothesis testing of listed companies on the Tehran Stock Exchange. The study of 215 companies were determined using the equation Cochran, a sample of 95 percent, 138 companies were determined. The corporate social responsibility disclosure index is based on content analysis of a company's annual report whereas the Value Added Intellectual Coefficient for the fiscal year of 2013 (cross sectional) is derived from financial information. The result shows that intellectual capital does not have a significant relationship with corporate social responsibility disclosure. Also results shows that there is a relationship between financial performance and corporate social responsibility.*

*Key words: Corporate Social Responsibility, Intellectual Capital, Performance*

## INTRODUCTION

One of the fields of researches that has been conducted on the subject of corporate social responsibility (CSR) is whether or not social responsibility and performance are related. To survey the relationship between these factors, scholars have compared the financial performance of companies with high reputations for social responsibility to the financial performance of companies with lower reputations. In the years of 2000, as many as 100 studies had been conducted over a period of twenty-five years (Steiner & Steiner, 2000). Research by Balbanis et al (1998) with name of "Corporate social responsibility and economic performance in the top

1. Department of Accounting, College of Humanities, Kermanshah Branch, Islamic Azad University, Kermanshah, Iran. *jamshidinavid@iauksh.ac.ir*

2. Department of Accounting, Borujerd Branch, Islamic Azad University, Borujerd, Iran. *mp.1360@yahoo.com*

3. Department of Accounting, Ferdos Branch, Islamic Azad University, Ferdos, Iran. mehrnegar.*amiri@gmail.com*

British companies: are they linked?", conducted a correlative study of profit and responsibility in the context of British companies and concluded that "the results of the empirical research supported only a few of the postulated relationships between CSR disclosure and CSR performance with past, concurrent or subsequent economic performance. However, when most corporate social responsibility research is mainly related to its correlation with financial performance and is measured by conventional financial ratios and figures, what is usually left out is the inclusion of intellectual capital as a variable which could be correlated to CSR.

This research paper can contribute in many different ways, such as the extensive development of literatures and studies on relationships between corporate social responsibility and intellectual capital in Iran, as one of the currently fast growing countries. The findings can enlighten organizations that intellectual capital can be an important asset which is beneficial in conducting corporate social responsibility.

## LITERATURE REVIEW

Business ethics, leadership and values have become an important issue in business and society and are considered as vital ingredients for the long-term success of businesses (Engelbrecht et al 2004). In the past, unethical behaviour was the basis for corporate scandals, fraud, and harassment at work or the creation of misleading financial reports. Issues like these have sensitized people worldwide towards the degree of social responsibility displayed by companies. Social responsibility of companies in turn is based on the conduct of entrepreneurs and executives at the top. To contribute to an ethical climate, leaders at the top or business organizations have to feel that there is a need for ethical behaviour and that strategic importance has to be given to ethical and moral values. As characteristics of top level executives appear to be related to organizational outcomes (Matthews, 1987), they are the ones that have to think and act on the basis of ethical and moral values.

Values help to both define the "core" of people and explain, why people make sacrifices, who they are and what they are willing to give up to attain their goals (Mitchell 1971). For an organization, values serve to give a sense of identity to its members, enhance the stability of its social system, direct manager's attention to important issues and guide their decisions (Deal/Kennedy 1982). As such, values are an essential part of a company's overall culture, affecting many important activities and relationships, such as competitive strategies, personnel policies and relationships with different stakeholder groups (Valentine/Barnett 2003; Hunt 1989). As already mentioned an organization's ethical values emanate from the personal predisposition of the company's leading manager or entrepreneur and as such influence their decisions and lead to actions that are desirable to the organization. Values are the basis for defining the normative standards for the organization's members. They have consequences for the respective organization, including the legitimization of entrepreneurial and managerial actions, the quality

of products, improved trust, a greater organizational commitment and increased effectiveness due to a strengthened organizational culture (Engelbrecht et al 2005). Besides, Peters & Waterman (1982) point out that firms that show superior performance have a well-defined set of shared ethical values. In this regard, values are necessarily and explicitly part of doing business (Freeman 2004). In making this statement, Freeman et al. reject the thought that ethics and economics can be separated sharply from each other and do not have anything in common. Values are still too often seen as a counterbalance of the company's profit orientation, which in this regard almost seems to be objectionable.

According to the WBCSD report, the essence of corporate social responsibility (CSR) is to recognize the value of the internal and external stakeholder dialogue. Therefore, socially responsible leadership and CSR are about the effects of entrepreneurial engagement on the different stakeholders of a company (Habisch 2004). In the wide sense of the stakeholder concept proposed by Freeman (2004, 91), stakeholders are "any identifiable group or individual who can affect the achievements of an organization's objectives or who is affected by the achievement of an organization's objective (Public interest groups, protest groups, government agencies, trade associations, competitors, unions, as well as employees, customer segments, shareowners, and others are stakeholders, in this sense)". Freeman continues that stakeholders are in the narrow sense, "any group or individual on which the company is dependent for its continued survival". The range of possible stakeholders is illustrated in Figure 1.

**Figure 1**
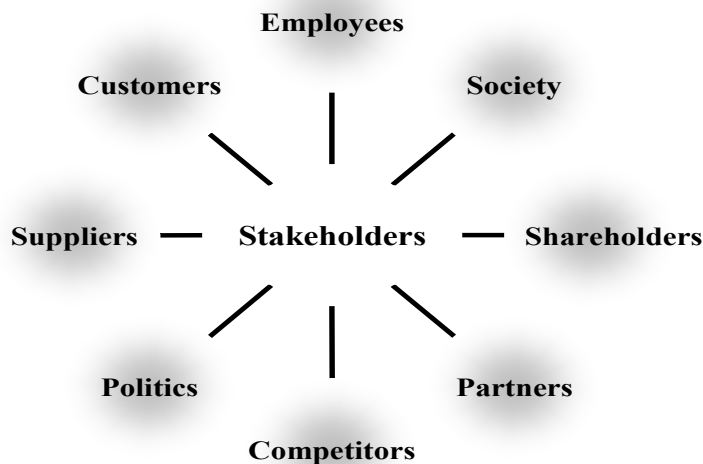
For an organization doing business in today's turbulent environments, stakeholders may be seen as important sources for long-term value creation (Maurer/Sachs 2005). But while there is a wide agreement among executives that customers, employees and suppliers have a stake in the enterprise, there is still some resistance against the inclusion of adversary groups such as competitors (Freeman/ Reed 2004). Obviously, a company's stakeholders vary considerably in their nature and characteristics, as some are internal stakeholders (employees, shareholders) while others are external to the company. For a firm it is vitally important to know who the relevant stakeholder groups are, what they expect and how managers can meet their legitimate claims (Post 2002), in order to be able to balance their demands and interests. With this regard, effective stakeholder management may be a tool to successfully resolve dilemmas such as generating high returns for shareholders, while on the same time meet the expectation of other stakeholders (Freeman 1984; Freeman/Gilbert 1987). For example, employees, consumers or society as a whole have become increasingly sensitive to the social performance of companies and the degree of social responsibility displayed by companies (Harrison/Freeman 1999). So, the role of companies in society is changing. Companies must both sufficiently focus on their contribution to the welfare of society in the longer term and contribute to the relationship with their stakeholders and society at large (SER 2001). The decision-making concerning social initiatives has become much more strategic and focused on providing tangible returns to the firm (Margolis/Walsh 2003). Therefore, managing the relationship with stakeholders may help managers to integrate business issues with social responsible organizational behavior.

In a broader scope, an orientation towards sustainability and stakeholders is connected to Corporate Social Responsibility (CSR). In this regard, CSR can be defined as the business commitment and contribution to the quality of life of employees, their families and the local community and society overall to support sustainable economic development (Holme/Watts 2000). Still, the debate on corporate social responsibility is going on, focusing on the question whether organizations pursue the satisfaction of stakeholder interests for economic reasons or because of doing so has intrinsic merit (Donaldson/Preston 1995). A pure definition of CSR in terms of the impact of organizational activities misses important points. Instead, social responsibility should be understood as a process, through which individuals' moral values and concerns are articulated (Maclagan 1999). CSR can therefore also be seen as a specific behavior that is congruent "with prevailing social norms, values and expectations of performance" (Sethi, 1975). As a company's actions can be interpreted as reflections of the decisions made by its executives (Hambrick, 1984), CSR might particularly depend on the individual sense of ecological, social and ethical responsibility of a company's managers and entrepreneurs which in turn is based on their ethical disposition.

Since this paper will discuss corporate social responsibility and intellectual capital, the author deems it necessary to define these terms. CSR can be viewed as a comprehensive set of policies, practices and programs that are integrated within the business operations, supply chain and decision-making processes throughout the company and usually includes issues related to business ethics, community investment, environmental concerns, governance, human rights, the marketplace as well as the workplace (Tsoutsoura, 2004). However, an early and influential statement of the modern perception of social responsibility was made in 1954 by Howard R. Bowen in his book, Social Responsibilities of the Businessman As cited in Steiner & Steiner (2000), Bowen defined social responsibility as "obligations … to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of objectives and values of our society." Social responsibility has also been viewed as a result or consequence of certain conditions within the company.

**Hypothesis Development**

Intellectual capital has been playing an ever more increasing role not only in the corporate financial performance of companies, but also in contributing to financial achievements such as market evaluation (Bozbura, 2004). If this link between intellectual capital and financial performance is true, then from looking at past studies which have shown a positive link between financial performance and CSR, we could infer that intellectual capital would also have a positive relationship on CSR. This relationship is shown and described in the figure below:

**Figure 2: The following hypothesis statement summarizes the statements above for this study**
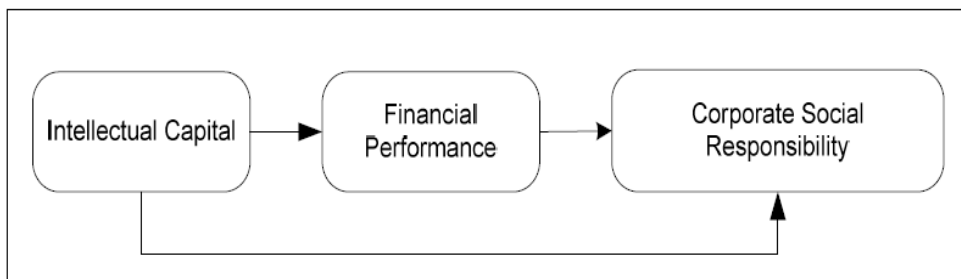


H1: There is a relationship between intellectual capital (VAIC) and corporate social responsibility (CSR) disclosure.

H2: There is a relationship between financial performance and corporate social responsibility (CSR) disclosure.

In order to create a proper assessment of the regression, control variables which may have an effect on corporate social responsibility need to be introduced. The control variables are Firm size (FSIZE), which is calculated as the natural log of market capitalization, Market valuation (MB) as the ratio of market capitalization to book value of common stocks, Asset turnover (ATO). With limited financial resources, companies will be more inclined to reallocate those resources to other parts of the company with a higher priority such as operations, production, marketing etc. which are their primary lines of business. Justification for including firm size as a control variable is based on the argument that as companies grow, there is greater demand placed on these big firms by society (Esrock & Leichty, 1998).

## Data and Research Methodology

We used data from statements of the Iranian listed firms for the fiscal year of 2013 (cross sectional), we excluded from the sample the financial firms i.e., banks, insurance companies and should not be in loss during the whole study period. The proposed study only focused on listed companies whose fiscal years started from March to May of each year.

Measurement of Intellectual Capital the Value Added Intellectual Coefficient (VAIC) is a financial valuation method of intellectual capital, which measures the efficiency of key resources in companies (Andriessen, 2004). It refers to the "total value creation efficiency due to both intellectual capital (structural and human capital) and the physical capital (capital employed) functioning in concert in business environment" (Pulic, 2004). Corporate intellectual ability which is measured by the VAIC is an indicator of the overall ability of companies to add value to their companies through utilizing physical capital and IC resources. Therefore, a company with a VAIC would mean that they are able to create more value for their company given the same amount of resources. The computation of the VAIC takes five steps.

First, it is necessary to calculate the value added (VA) of the company:

$$VA = OUT - IN$$

Where: VA = value added for a company; OUT = total sales; IN = cost of bought Following (Pulic, 2002) (Firer & Williams, 2003), the three resources of a firm that contribute to a firm's value are calculated as the following:

$$HC = EC \text{ and } SC = VA - HC$$

$$CE = \text{physical capital} + \text{financial assets}$$

$$= \text{Total assets} + \text{intangible assets}$$

Where: HC = human capital; SC = structural capital; CE = capital employed
After the three components of firm resources have been calculated, the efficiency of these resources in creating value added is then calculated as the

Following:

CEE = VA / CE; HCE = VA / HC; SCE = SC / VA

Where: CEE = capital employed efficiency

Coefficient; HCE = human capital efficiency

Coefficient; SCE = structural capital efficiency coefficient

VAIC is defined as:

$$VAIC = HCE + SCE + CEE$$

## Measurement of Corporate Social Responsibility

The dependent variable of this study is corporate social responsibility (CSR), which is measured based on content analysis of the company's annual reports and their disclosures of social responsibility activities. To properly assess the indicators that are needed to measure CSR, the indicators that have been defined by the KLD Research–Environmental, Social and Governance Ratings Criteria were used. Sampling Design The sample for the population is taken in 2013 from the Tehran Stock Exchange.

The regression model used to address the first hypothesis will be the following:

$CSR = \beta 0 + \beta 1VAIC + \beta 2MB + \beta 3FSIZE + \beta 4ROA + \beta 5ATO + \varepsilon$

CSR = Corporate Social Responsibility score

VAIC = Value added intellectual coefficient

ROA = Return on Assets (performance variable)

MB = Market valuation (Marketto- Book ratio)

FSIZE = Firm Size (Natural Log of Market Capitalization)

ATO = Asset Turnover

## Stability Test

In this study, in order to detect stationary Haderi test data is used. According to the test results Haderi all variables are static. The test results are shown in Table 1

**Table 1**
**Test results Haderi**

| Variables | Prob | Statistics | Stationary state |
|-----------|------|-----------|------------------|
| CSR | 0.0000 | 15.31 | static |
| VAIC | 0.0001 | 3.82 | static |
| SIZE | 0.0000 | 10.62 | static |
| ROA | 0.0000 | 18.72 | static |
| MB | 0.0000 | 10.57 | static |
| ATO | 0.002 | 2.54 | static |

## Heterogeneity of Variance Test

In this study the anisotropy of white test was used. The value of the white test shows that there is no inconsistency variance. Therefore, the model of ordinary least squares (OLS) is used.

**Table 2**
**White test results (heterogeneity of variance)**

| Description | Statistics | Intersecting multiplication |
|-------------|-----------|------------------------------|
| Statistics | 0.6322 | 8.9841 |
| Prob | .08383 | 0.8321 |

## The Results of Regression

The pooled least squares effects method was accepted in disfavor of fixed and random effect method at a 5% critical level.

**Table 3**
**Regression Results**

| Independent variables | Coefficient | t- statistic | P-Value |
|-----------------------|-------------|--------------|---------|
| VAIC | 0.039857 | 0.580840 | 0.5617 |
| ROA | 0.027903 | 2.564214 | 0.0143 |
| MB | 0.013489 | 2.915262 | 0.0038 |

| | | | |
|---|---|---|---|
| ATO | -0.706138 | -16.46203 | 0.0000 |
| FSIZE | 1.63E-05 | 3.687981 | 0.0003 |
| R-squared | | | 0.212315 |
| Adjusted R-squared | | | 0.200523 |
| F-statistic | | | 8.00543 |
| Prob | | | 0.000 |

In order to test for the validity of the aforementioned model we used Durbin-Watson test for the error serial correlation. Test indicated that the model is valid.

From table 3, CSR shows a strong relationship, such as FSIZE and MB and ROA and ATO. However, the VAIC was unable to show that it has a significant impact on CSR. The results did not present any statistical evidence that would support the presence of an association between corporate intellectual ability, measured by the VAIC and CSR. That could be explained by how Irainian companies perceive IC and CSR in the first place. For example, in order to create better human capital and organizational capability, Irainian companies may be leaning towards compliance of Laws such as labor standards. Compliance to these labor laws is a form of creating better human capital, but does not fit the category of CSR since it is not voluntary in nature. CSR is not perceived as an action that would create long-term benefits in Iran, and is not usually linked or planned out as a way to gain value or bring intellectual ability back to a company. Most of the time, CSR activities in Iran do not bring the benefits of CSR back to their companies, usually leaving individuals better off but not creating value for the company. This could be why CSR and the link to value creation is not significant in Iran.

## CONCLUSION

After conducting the research, several conclusions can be made from the results. Results shown that there is significant relationship between financial performance and CSR, from the results of the control variable, it indicated that all of the control variables had a significant relationship with corporate social responsibility within Iran. The research reveals that there is a lack of CSR rating institutions within Iran, indicating a lack of awareness concerning the measurement of social performance of companies within the country. It seems apparent that the level of corporate social responsibility in Iran is at the stage where companies still see CSR as a means to manage social relationships but not to incorporate it within corporate strategy.

### *References*

Stockholm. Steiner, G. A., and Steiner, J. F. (2000) *Business, Government, and Society: A Managerial Perspective.* McGraw-Hill, Boston.

Balabanis, G., and Hugh, C. Phillips, J. L. (1998) 'Corporate social responsibility and economic performance in the top British companies: are they linked?' *European Business Review*, 25-44.

Engelbrecht, A., van Aswegen, A., Theron, C. (2005): The Effect of ethical Values on transformational Leadership and ethical Climate in Organizations", *South African Journal of Business Management*, Vol. 36 (2), 19-26.

Mathews, M. (1987): "Codes of Ethics: Organisational Behaviour and Misbehaviour", in: Frederick, W., Preston, L.: *Research in corporate social Performance and Policy*, Greenwich: Jai Press Inc.

Mitchell, A. (1971): "Changing Values", *International Advertiser*, Vol. 12, 5-9.

Deal, T., Kennedy, A. (1982): "Corporate Cultures", *Reading*: Addison-Wesely Publishing Company.

Valentine, S., Barnett, T. (2003): "Ethics Code Awareness, perceived ethical Values, and organizational Commitment, *Journal of Personnel Selling and Sales Management*, Vol. 23 (4), 359-367.

Hunt, S., Wood, V., Chonko, L. (1989):"Corporate ethical Values and organizational Commitment in Marketing", *Journal of Marketing*, Vol. 53, 79-90.

Peters, T., Waterman, R. (1982): "In Search of Excellence", New York: Harper & Row.

Freeman, R., Reed, D. (2004): "Stockholders and Stakeholders: A new Perspective on Corporate Governance", in deWit, B., Meyer, R. [Eds.]: *Strategy—Process, Content, Context*, London: Thomson, 616-621.

Habisch, A. (2004): "Social Responsibility, Social Capital and SMEs, in: Spence, L., Habisch, A., Schmidpeter, R.: *Responsibility and Social Capital,* London, 25-35.

Maurer, M., Sachs, S. (2005): "Implementing the Stakeholder View", *Journal of Corporate Citizenship*, Spring - Issue 17, 93-107.

Post, J. E., Preston, L. E., Sachs, S. (2002): "Managing the extended Enterprise: The new Stakeholder View", *California Management Review*, Vol. 45 (1), 6-28.

Freeman, R., Gilbert, D. (1987): "Managing Stakeholder Relationships", in Sethi, S., Falbe, C. (Eds.): *Business and Society: Dimensions of Conflict and Cooperation*, Lexington: Lexington Books, 397-424.

Harrison, J., Freeman, R. (1999): "Stakeholders, Social Responsibility, and Performance: Empirical Evidence and theoretical Perspectives", *Academy of Management Journal*, Vol. 42 (5), 479-485.

Margolis, J. D., Walsh, J. P. (2003): "Misery Loves Companies: Rethinking Social Initiatives by Business", in: *Administrative Science Quarterly*, Vol. 48, 268-305.

Donaldson, T., Preston, L. (1995): "The Stakeholder Theory of the Corporation: Concepts, Evidence and Implications", *Academy of Management Review*, Vol. 20, 65-91.

Maclagan, P. (1999): "Corporate Social Responsibility as a participative Process", *Business Tehics*, Vol. 8 (1), 43-49.

Sethi, S. P.: 1975, 'Dimensions of Corporate Social Performance: An Analytical Framework', *California Management Review* 17(3), 58–64.

Hambrick, D., Mason, P. (1984): "Upper echelons: The organization as a reflection of its top managers", *Academy of Management Review*, Vol. 9, 193-206.

Tsoutsoura, M. (2004, March), 'Corporate social responsibility and financial performance,' Haas School of Business, [Online], [Retrieved March 2009] www.haas.berkeley.edu/ responsible business /documents/FinalPaperonCSR_PDFII.pdf

Bozbura, F. (2004) 'Measurement and application of intellectual capital in Turkey,' *The Learning Organization*, 357-367.

Esrock, S., and Leichty, G. (1998) 'Social responsibility and corporate web pages: self presentation or agenda setting?' *Public Relations Review*, 305-319.

Andriessen, D. (2004) *Making Sense of Intellectual Capital*. Oxford: Elsevier Butterworth-Heinemann.

Pulic, A. (2004), 'Basic information on VAIC,' VAIC-on.net [Online], [Retrieved March 2009], http://www.vaic-on.net/start.htm

28-2-16