Surveying the Relationship between Managerial Performance with Intellectual Capital in Member Corporate in Tehran Securities and Exchange

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Abstract
One of the most important economical poles in every country is Securities and Exchange which makes countries more productive. Therefore empowering these companies creates added value for the governments. The purpose of writing the current paper is to survey the relationship between managerial performance and intellectual capital in member corporate in Tehran Securities and Exchange. To measure intellectual capital, three main dimensions include human capital, structural capital and physical capital were considered. The research is applicable from goal view and descriptive from data collection. Also the data gathering tool is questionnaire which library and fieldwork methods were utilized for its design. Statistical society contains 102 companies which are member in member corporate in Tehran Securities and Exchange. The results of applying Pearson correlation test showed that there are significant and positive correlations between intellectual capital and its dimensions with managerial performance. Also structural capital was selected as the most important one as Regression test was illustrated. Finally some suggestions were represented for stockholders to gain more financial revenue.
Keywords: intellectual capital, human capital, structural capital, physical capital, managerial performance

Introduction

In recent years, companies' disclosure of information has gained increased attention due to globalization and integration of capital markets, greater mobility of monetary and actual goods, tougher competition, new dominating industries, and developments in IT and the internet. Reports (Eustace, 2001; FASB, 2001; Upton, 2001) and academic contributions (Lev, 2000; Beattie and Pratt, 2002a, b) have argued that demand for external communication or information on knowledge-based resources is growing as companies increasingly base their competitive strength and thus the value of their company on know-how, patents, skilled employees and other intangibles. This demand for external communication applies to both traditional annual reporting and newer types of reporting such as intellectual capital statements, supplementary business reporting and prospectuses.

Companies increasingly rely on intellectual capital (IC) in their value creation process, rather than on traditional production factors such as physical and financial capital. Investors are generally well-informed about the latter two production factors through the traditional financial report. There is a growing agreement, however, that information deficiencies arise from the shortcomings of the traditional accounting system in reflecting the value of IC (Lev and Zarowin, 1999). Companies can, of course, choose to voluntarily disclose information about their IC in order to (partly) overcome these deficiencies.

Literature review

Intellectual capital

One of the previous studies on voluntary IC disclosure is Guthrie and Petty (2000). Using an adjusted version of the Sveiby (1997) model as a framework, these authors studied the reporting practices of the top 20 (by market capitalization) Australian companies from six industry groups in the year 1998. Overall, Guthrie and Petty (2000) found that few companies have taken a proactive role in reporting on intellectual capital. They concluded that the key components of intellectual capital are poorly understood, inadequately identified, inefficiently managed, and not reported within a consistent framework, when reported at all. The authors also observed that the main areas of reporting are human resources, technology and intellectual property rights, and organizational and workplace structure. Adopting the methodology of Guthrie and Petty (2000), Brennan (2001) conducted a content analysis of the annual reports of 11 knowledge-intensive companies listed in Ireland. Annual reports from the year 1997 or 1998 were used. The author concluded that IC assets were rarely referred to in annual reports and, when referred to, it was mostly in qualitative terms.

Williams (2001) conducted a longitudinal analysis of IC disclosure in the annual reports of 31 randomly selected UK companies listed in the FTSE 100 index over the period 1996-2000. The results indicated a continuous upward trend in the average amount of disclosure on IC. Bontis (2002) conducted a computerized content analysis of 10,000 annual reports of Canadian corporations, using a list of 39 encompassing terms relating to intellectual capital. The analysis resulted in only 74 hits. The author concluded that the IC disclosure by Canadian corporations was low.

The intellectual capital is a key parameter to performance that should be recognized, protected, and nurtured by personnel so that the company can keep and improve its performance in today's transforming market (Talebizadeh, 2014).

Using the framework of Guthrie and Petty (2000), Bozzolan et al. (2003) examined voluntary IC disclosure in Italian annual reports of 2001. They reported that Italian companies mainly disclosed with regard to external structure. They also found that industry and size were relevant factors in explaining the differences in reporting behavior amongst Italian companies. In Abeysekera and Guthrie (2005) the annual reporting trends of IC in Sri Lanka were investigated. Using the annual reports of the top 30 firms listed on the Colombo Stock Exchange in the period 1998/1999 and 1999/2000, they observed an increase in IC disclosure over the years. The research indicated that annual reports lacked a framework and consistent approach for disclosing IC.

The above studies investigated the amount and content of IC disclosures in annual reports in various countries. Differing years of measurement make a comparison of the results difficult. In addition, the scoring and recording units differ between the studies. In this study, annual reports of companies from three countries are analyzed in order to make an inter-country comparison. Three measurement years, 1998, 2000 and 2002, were chosen in order to analyze and compare the trends in disclosure over the years. Thus, this study adds to the current literature in combining a longitudinal study and an inter-country comparison.

We choose three European countries that, according to a study by Bounfour (2003), demonstrate a relatively high IC performance. Bounfour (2003) proposed the intellectual capital dynamic value approach (IC-dVAL) for measuring IC performance in a dynamic way. The approach integrates four dimensions for measurement:

(1) inputs;

(2) processes;
(3) assets; and
(4) outputs.

Managerial performance

Many researchers from the 1950s through to the mid-1980s conducted managerial behavior studies, but few attempted to differentiate between what Hales (1986) refers to as "good" and "bad" management. Instead, most explored the frequencies and duration of managerial activities (Martinko and Gardner, 1985), and used different types of definitions, predictors and measurement criteria of managerial effectiveness (Goodman et al., 1983). This led to Stewart (1989) complaining about the lack of comparability between such studies, which she concluded was caused by the haphazard and arbitrary coding of managerial behaviors and the use of unclear and confusing mixes of coding categories. Consequently, she argued researchers should free their minds of existing categories and adopt other approaches. But with the exception of Borman and Brush (1993) who produced a "taxonomy of managerial performance requirements" based on dimensions derived from critical incidents and job activity statements reported in 19 unpublished and seven published studies, few other researchers have followed Stewart's suggestion. Consequently, the issue of managerial effectiveness remains a substantially neglected area of management research (Flanagan and Spurgeon, 1996; Noordegraaf and Stewart, 2000; Willcocks, 1992), and there continues to be little agreement about what constitutes and is meant by managerial effectiveness (Barker, 2000; Cammock et al., 1995; Kim and Yukl, 1995).

A similar situation exists in the area of leadership behavior research. Most past studies have been focused on a single level of analysis using pre-determined behavioral dimensions and survey instruments; and more often than not these have measured attitudes about leader behavior rather than actual observed behavior and their effectiveness (Conger, 1998). Furthermore, as Conger claimed, typically the questionnaire items have been generalized across a variety of contexts, and expressed in such broad terms that a useful richness of detail has often been missing: researchers have then ended up measuring the presence and frequency of static terms and have failed to advance understanding of the deeper structures of leadership. Other writers have bemoaned the fact that little effort has been made to confirm the results of evaluation studies of leader behavior with alternative approaches to survey-based methods, and have complained about the positivist bias and predominant use of survey tools (Alvesson, 2002; Avolio et al., 1999; Den Hartog et al., 1997). Thus, despite the large amount of empirical research on effective leadership behavior, there is still a lack of agreement about which behavior categories are relevant and meaningful for leaders (Yukl et al., 2002).

Conceptual framework and hypotheses

The figure below illustrates the relationship between managerial performance and with intellectual capital and its dimensions.
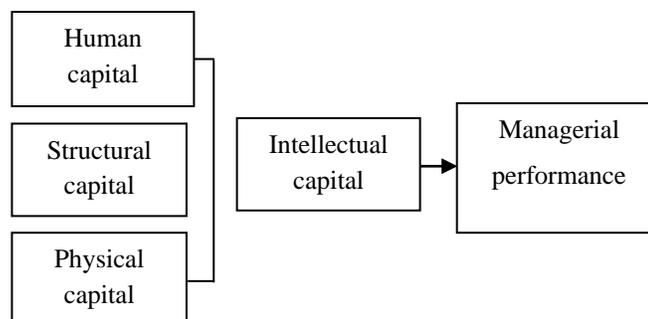

Figure 1: Conceptual framework of research

1. There is significant correlation between intellectual capital with managerial performance.
1.1. There is significant correlation between human capital with managerial performance.
1.2. There is significant correlation between structural capital with managerial performance.
1.3. There is significant correlation between physical capital with managerial performance.

Research methodology

Statistical society of the current research is includes the corporate which were accepted in Tehran Securities and Exchange and have the characteristics below:

1) Their financial information is accessible.
2) Have no change of financial year in the current period
3) Not to be parts of banks and credit institutions.
4) Be accepted in Tehran Securities and Exchange since 2007 and have not exited between the years 2008-2012.

Therefore the statistical society contains 102 companies.

Table 1: The results of reliability

Variables	Cronbach Alpha
Intellectual capital	0.81
Human capital	0.85
Organizational capital	0.79
Physical capital	0.77
Managerial performance	0.86

These values support the reliability of questionnaires, because the calculated results for Cronbach's alpha are more than 0.7.

Current study can be considered as a descriptive survey if we observe it from data collection aspect and it would be an applied research if the goals of the study are considered. To collect the data, library method (refer to books, articles, libraries, etc...) and fieldwork (questionnaire) were used. The questionnaire was designed in two parts intellectual capital and managerial performance and then they were distributed among the samples (participants).

To analyze the data, SPSS 19 and Kolmogorov-Smornov, Pearson and Regression tests were utilized. Management experts were asked to evaluate the validity of questionnaires. To do this, the questionnaires were given to some university professors and experts in management. Then, they confirmed the applied modifications and the questionnaires were given to the participants. To determine the questionnaires' reliability, the 'Cronbach Alfa technique' was applied. For this purpose, 35 people were chosen randomly (from the participants) and the questionnaires were given to them. The 'Cronbach's Alfa' values for all variables were calculated:

4. Data Analysis and Discussion

4.1. Kolmogorov-Smirnov test

To survey normality of data distribution in statistical society, Kolmogorov-Smirnov test was applied.

Table 2: the results of applying Kolmogorov-Smirnov

Variables	Sig
Intellectual capital variable	0.889
Managerial performance	0.841

As sig amount for all variables calculated less than (0.05), so normality of data distribution was accepted. Therefore for data analyzing some parametric tests were utilized.

4.2. Pearson Correlation Test

To investigate the relations of the variables, this test was applied. The results are shown below:

Table 3: The correlation between intellectual capital with managerial performance

Correlation	statistic	sig	Test result
Intellectual capital with managerial performance	0.123	0.006	Positive and meaningful correlation
Human capital with managerial performance	0.028	0.000	Positive and meaningful correlation
Organizational capital with managerial performance	0.100	0.000	Positive and meaningful correlation
Physical capital with managerial performance	0.042	0.000	Positive and meaningful correlation

As can be viewed from Table 3, there is a meaningful and direct correlations between

Conclusion and Further Suggestions

The purpose of writing the current paper is to survey the relationship between managerial performance with intellectual capital in member companies in Tehran Securities and Exchange. For this mean three main dimensions were considered for intellectual capital as: human capital, structural capital and physical capital. The results of applying Pearson and Regression test illustrated that there are positive and significant correlations between intellectual capital and its dimensions with managerial performance.

intellectual capital and their dimensions with managerial performance.

4.2. Regression Test

To investigate how intense the effect of intellectual capital is on gaining managerial performance, the regression test was used.

Table 4: Multi-variables regression between intellectual capital and managerial performance

Variables	Standardized Beta	Unstandardized Coefficients		T value	sig
		Standard	B		
Intellectual	0.028	0.020	0.013	0.633	0.007
Human capital	0.092	0.033	0.123	2.782	0.006
Structural capital	0.100	0.263	1.212	5.228	0.024
Physical capital	0.042	0.037	0.035	0.946	0.004

Table 4 suggests that there is a direct and meaningful linear correlation between intellectual capital and its dimensions with managerial performance.

Attending to the significant correlations, stockholders of mentioned companies are advised to:

- Applying the current model to real and correct measurement of corporate' current and future values for gaining more financial revenue yield
- Creating separated department to measure and administrate intellectual capitals
- Obligating member companies to represent annual reports to make information more obvious

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