The Relationship between Intellectual Capital and Financial and Non-Financial Performance in West Cement Company in Kermanshah

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ABSTRACT

The main objective of this study is to investigate the relationship between intellectual capital and financial and non-financial performance of the West cement company in Kermanshah. In this regard, the main hypothesis was. formulated as follows: 1. Human capital, structural capital and relational capital on the basis of mutual influence. 2. Intellectual capital has a positive impact on organizational learning capability. 3. Intellectual capital is positive on firm performance. 4. Organizational learning capability has a positive impact on firm performance. In this study, intellectual capital and its components as independent variables and learning capability variables with its dimensions as them editor variable and firm performance variable with its dimensions as dependent variables were analyzed. The research study is descriptive - correlation. In this study, correlation coefficient and path analysis using LISREL software have been used. The statistical population of this study, all employees and managers of the West Cement Company, is approximately 700 people. In order to determine the survey sample, a simple random sampling is used. The assumptions of the study, the relationship between the stock of knowledge and financial performance, as well as the relationship between structural capital and non-financial performance were not confirmed. Other hypotheses to study the effect of variables based on assumptions and research conceptual model were confirmed to have direct or indirect impact.

KEYWORDS: Capital - intellectual capital - learning capability-financial performance - Knowledge Stocks.

INTRODUCTION

In the coming era of competitive environment, organizations are facing with an environment characterized by increasing complexity, globalization and dynamics. So for the duration of their deployment, organizations face new challenges that getting out of these Challenges will require greater attention to developing and strengthening internal Skills within the work Principles and methods of organizational knowledge that the organization uses to achieve better performance In the world of business. Based on this, if the above requirements are compared with the results of the identification, Measurement and management of intellectual capital it is well understood that intellectual capital has necessary tools to achieve sustainable competitive advantage. Today the intellectual capital is remembered as a critical factor in the performance of business organizations and associated companies, However it is believed that knowledge has been recognized as the sustainable strategy to achieve and maintain organizations competitive advantage [5]. Hence, in the current knowledge- based world, organizational capabilities are based on knowledge and managers must understand what features they require to maintain a competitive advantage. Nowadays intellectual capital such as knowledge, skills, and relationships have become more vital source of competition among organizations. In today's knowledge-based economy, skills, and relationships have become more vital sour of competition among organizations. In today's knowledge- based economy, companies just do not produce a product or service, but should create value to remain in the new economy in the current situation, the researchers believe that intellectual capital is a leverage to maintain a competitive advantage and stable performance. Hence, the identification, evaluation and intellectual capital management are increasingly important for companies.

THE STATEMENT OF THE PROBLEM

In the current competitive scenario which continuous and dynamic change is its feature, companies and organizations have concluded that learning ability is one of the features that successful businesses maintain

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their competitive advantage. Organizations and companies must change their own knowledge based on environmental conditions and are based on knowledge, to be able to operate in their current state and is simply possible through their ability to Learn. (Perieto& Revilla:2006)

Hence the scholars are of the opinion that organizations seek learning with two main goals:1-to search and access to new opportunities, and 2-to exploit the available opportunities (March:1991). Techniques such as adjustments in the organization, making small and Re-engineering are among of the ways to improve business performance. Their ultimate goal is considered to discover better ways for the exploitation of organizational resources. Today knowledge is known as one of the main sources of organization's competitive advantage and for managers to have higher priority than financial and physical resources. Companies and organizations in this regard look for the "Learning organization", promoting team building and empowering. Intellectual capital theory is an approach that follows knowledge based advantage in organizations [2]. Intellectual capital is one of the main element in the Long-term performance and profitability in a knowledge-based economy. By intellectual capital, organizational learning and knowledge flows may improve business performance of the company. Failo and Laisels (1985) have stated that there can be better future performance by learning. Kanjewsi and Dale (1965) are of the opinion that business development and improvement can be learnt.

Many organizations and corporate see their main ability and excellent in intangible assets more than tangible assets. (Hewsu:2008) Nonaka and Takauchi have expressed that the future society will be a knowledge based society which acquriring knowledge and its use will be the basis to grow and accumulate capital. Industry in such communities do not depend on the traditional production factors in their competitive advantage, but knowledge management and integration and coordination of industries play vital role. This process, does emphasize the importance of organizational learning and how to create management and evaluate the intellectual capital. Knowledge and knowledge management is part of the concept of "intellectual capital". Intellectual capital is the sum of total invisible and intangible assets of the organization that be applied to reach organizational goals. Intellectual capital helps the organizations to take better advantage from intangible assets which are important sources of enterprise value. Concepts and new technologies on the other hand, enables organizations to create and store up knowledge and share it between employees, suppliers, partners and customers (Montazer Ghaem:1387). Basically performance improvement do mean strategies implementation through which company strives to increase sales through improvement or reformed products and current services. (Fred R.David:1384) Despite the fact that the intellectual capital and the organizational learning capability are very important for the company development, few studies have been done on the relationship between these factor and their impact on business performance .A study Griffin has shown that approximately 3H.2% of companies sales as an indicator of performance improvement is the result of new market products (Fred R.David:1385). Researches done on intellectual capital and performance in different countries have essentially put these two variables into argument (Van Min Loh:2010, Ghlichlec :1385). But it should be noted that the organization itself and its learning capabilities is also one of the key variables that can be effective in between, mediating role in most situations, ie. the learning organization will be ignored.

Performance of business is a multi-dimensional concept and its measurement in companies is not so simple and is more complex than the mere financial indicator and common measuring indicators of this variable, hence examining the impact of intellectual capital and learning ability is not possible. Simply by evaluating the financial indicators only part of the performance of a company will be covered. In this respect, in order to evaluate the performance of intellectual capital and the ability to learn both financial and non-financial performance of a company is required to be evaluated [8]. Regardless trends in the literature about the ability to learn and intellectual capital [12]. current research is based on impact analysis of intellectual capital and learning ability on financial and non-financial performance of the company.

In this regard, there is little empirical research to answer this question or the research findings has not been satisfactory [11]. with this approach, the analysis of the impact of intellectual capital and learning capabilities on performance (Financial or non-financial) is considered as one of the case for study and can have contribution to the development of this field [17].

In a study done by Abdol Aziz and Bentis (2008) in relation to intellectual capital and performance in the pharmaceutical sector, the results of information processing confirmed the hypothesis of the research. In another study by Hiusu et al. structural capital had a negative impact on performance Aghdasi (in 1387) has investigated the potential of organizational learning in hospitals and has identified four dimensions of management commitment, vision system, outdoor experimentation and knowledge transfer and integration capabilities as a means of improving performance. (Aghdasi:1387) so regarding the research background it is clear that in different organizations indicate or of intellectual capital of ten have had different and even conflicting results. Therefore, in this study, the researcher using the model (combined) of Isableprieto and Bentis examines the relationship between intellectual capital and performance (financial or non-financial) in west cement company of Kermanshah. On the other hand the relationship between the intellectual capital including human capital, structural capital and relational capital (Martinez :2008) and the ability to learn will

be examined, and the mediating role of organizational learning capability between the intellectual capital and corporate performance, and ultimately the impact of intellectual capital and organizational learning capabilities on performance (financial and non-financial) using appropriate statistical techniques will be examined.

The importance and need for research

Today, financial resource are not single and the most important source of activity and success of organizations and companies, but its staffing is known as the major investment. To improve financial and non-financial performance, intellectual capital within the organization is important. Organization management seen staff and employees as strategic resource and they are consistent with the strategic plan [1]. Optimistic looking of directors at the nature of employees encourages them to invest to upgrade skills and develop staff capabilities. Organizational intellectual capital illustrates technologies and other mechanisms which will help the staff to generate revenue for the company (Ishaqh:2010). On the other hand, regarding the research background [5]. the organizational intellectual capital (human, relational and structural capital) have an impact on organizational learning capability.

Being a learning organization is considered as a competitive advantage and implicated in the development of business performance. Hence the capacity of the organization involved in knowledge and analysis acquisition, categorizing and recording it in developing companies new products, there for, Research has followed to identify element of intellectual capital in west cement company of Kermanshah and review their impact on organizational learning capability and performance (financial and non-financial) in order to be able to provide constructive suggestion to improve the performance of decision makers and strategists of these companies.

Research Hypotheses:

In this study, researcher regarding the research conceptual model has proposed four main hypotheses followed by secondary and minor hypotheses associated with each main hypothesis.

Main hypothesis: (a) human capital, structural capital, and relational capital have mutual effects on each other.
Secondary hypothesis (1): human capital has a positive impact on structural capital.
Secondary hypothesis (2): human capital has a positive impact on relational capital.
Secondary hypothesis (3): structural capital has a positive impact on relational capital.
Main hypothesis (b): Intellectual capital has a positive impact on organizational learning capability.
Secondary hypothesis (1): Intellectual capital has a positive impact on the stock of organizational knowledge.
Secondary hypothesis (2): Intellectual capital has a positive impact on organizational learning process.
Main hypothesis (c): Intellectual capital has a positive impact on firm performance.
secondary hypothesis (1): Intellectual capital has a positive impact on financial performance of the company.
secondary hypothesis (2): Intellectual capital has a positive impact on non-financial performance.
Main hypothesis (d): organizational learning capability has a positive impact on corporate performance.
Secondary hypothesis (1): the ability to learn has a positive impact financial performance.
Secondary hypothesis (2): the ability to learn has a positive impact no non- financial performance.

Research objectives

Main objective: to investigate the relationship between intellectual capital and performance (financial and non-financial) in the studied companies.
1-to study the effect of intellectual capital elements (human capital, relational and structural) on the ability to learn in the wet cement company.
2-to study the effect of learning capability on performance in west cement company of Kermanshah.
3-to study the effect of intellectual capital elements (human capital, relational and structural) on the performance of west cement company in Kermanshah city.
4-to prioritize the impact of intellectual capital elements on organizational learning capabilities.
5-to prioritize the impact of intellectual capital on performance of firms studied.
6-to prioritize the impact of intellectual capital elements in the companies studied.
7-to offer constructive suggestions to corporate executive and decision makers based on research findings.
8-to offer the model of intellectual capital and performance, according to studied company.

Analytical model of the research

In this study, the researcher with the study of literature and research base model (Isable and Bontis) and the research hypotheses has defined the model number one as follows:
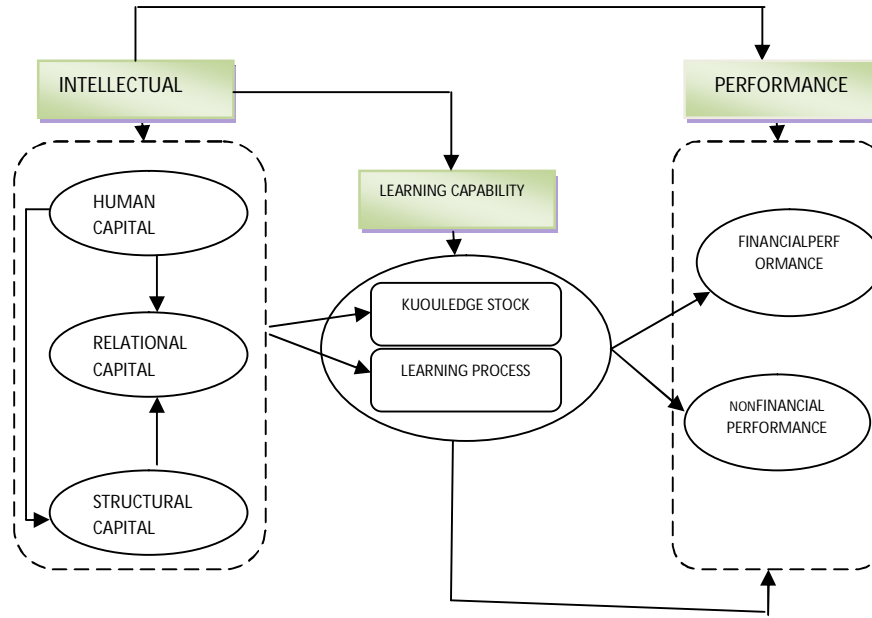
Source: Isable M Prieto&Bontis

MATERIALS AND METHODS

One of the issues in the study of humanities and behavioral science is to select appropriate research method. In this study, the researcher has measured the relationship between intellectual capital variables and firm performance (financial and non-financial) with emphasis on the mediating role of organizational learning capability and converted the obtained results from the qualitative to the qualitative value. The general approach in this research is survey, descriptive and analytical. This study describes and analyzes the current state of intellectual capital variables, organizational learning capability and organizational performance (financial and non-financial) and also the interactions between them in west cement company of Kermanshah city. And a sample population of all employees and directors of the west cement company is approximately 700 people. To measure the sample size with admission of error level %07 and 95% confidence level it is achieved by equation (1) to determine Cochran sample size and sample size is estimated:

Equation (1) $n = \frac{z^2 pq}{d^2}$

In equation (1) it is considered the number of samples (n), the unit normal variable value corresponding to the confidence level (z)1-a, the amount of allowable error (d), to calculate variable attribute ratio using the previous studies (p) and q=1-p.

If the p value is not available, you can choose it equal to 5%. In this case, the variance reaches its maximum of 25%. Therefore the number of samples in this study, the 95%confidence level and an error level of %1 and population size of N=210 in equation(2) is considered:

Equation (1) $N = \frac{(0/096)^2 (0/25)}{(0/07)^2}$

In this method it is necessary that obtained samples will be compared with the total population. If the ratio between sample size and population size is less than 5% $\left(i.e, \frac{n}{N} \le 0.05 \right)$, the same number is sufficient, but if more than 5 percent, the sample size can be adjusted using equation (3-3).

Equation (3) $n' = \frac{n}{1 + \frac{n}{N}}$

In equation (3) n' is new sample, n is the primary sample size and N is population size.

In this study, the primary sample size ratio is equal to 28% which is higher than %05, so the sample size should be adjusted:

Equation (4) $\frac{n}{N} = 196/700 = 0/28 > 0/05 \rightarrow {}^{196}\!/_{(1 + 196/700)} = 153$

The result of these choices should be153 people.

In this study simple random sampling method has been used to determine the sample. In this case each of population is given an equal chance to be selected. In other words if we assume the population size N and sample size n, the selection probability of each individual in society in sample is equal to n/N. (sarmad:1387)

In this research, correlation coefficient and path analysis have been used. In order to analyze and determine correlation coefficients and statistical evaluation and variables effects on each other and also path analysis, Lisrel software has been used.

Test Results of the research hypotheses
In the present study, using the descriptive and inferential statistical methods, nineteen hypotheses have been studied. The results are discussed as below:

Research hypotheses

Intellectual capital dimensions I.C.D		Significant Number	Correlation coefficient	Test Result
Hypothesis1: there is a significant positive relationship Between human capital and structural capital.		8.63	%37	Admission
Hypothesis2: there is a significant positive relationship Between human capital & structural capital.		2.54	%21	Admission
Hypothesis3: there is a significant positive relationship Between human capital and structural capital		5.79	%54	Admission
Intellectual capital dimensions	**Learning capability dimension**	**Significant Number**	**Correlation coefficient**	**Test Result**
Hypothesis4: human capital	has a positive impact on Knowledge stock.	7.63	%27	Admission
Hypothesis5: human capital	has a positive impact on the learning process.	5.79	%17	Admission
Hypothesis6: structural capital	has a positive impact on knowledge stock.	5.05	%20	Admission
Hypothesis7: structural capital	has a positive impact on the learning process.	4.34	%13	Admission
Hypothesis8: Relational capital	has a positive impact on knowledge stock.	5.82	%22	Admission
Hypothesis9:relational capital	has a positive impact on the learning process.	3.15	%15	Admission
Learning capability dimensions	**Company's performance dimension**	**S.N.**	**C.C.**	**T.R.**
Hypothesis10:knowledge stock	has a positive impact on company's financial performance.	-1.86	-%41	Rejection
Hypothesis11: knowledge stock	has a positive impact on company's non-financial performance	10.44	%84	Admission
Hypothesis12:learning process	has a positive impact on company's financial performance	1.96	%13	Admission
Hypothesis13: learning process	has a positive impact on company's non-financial performance	2.28	%16	Admission
Learning capability dimensions	**Company's performance dimensions**	**S.N.**	**C.C.**	**T.R.**
Hypothesis14:Human capital	has a positive impact on company's financial performance.	2.76	%26	Admission
Hypothesis15: Human capital	has a positive impact on company's non-financial performance	6.05	%27	Admission
Hypothesis16:structural capital	has a positive impact on company's financial performance	4.39	%13	Admission
Hypothesis17: structural capital	has a positive impact on company's non-financial performance	1.20	%13	Admission
Hypothesis18:Relational capital	has a positive impact on company's financial performance	2.47	%26	Admission
Hypothesis18:Relational capital	has a positive impact on company's non-financial performance	5.62	%28	Admission

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