The effect of intellectual capital on organizational performance in departments within the National Iranian Drilling Company

Peiman Safapour, Ali Akbar Ahmadi *

Department of management, Shoushtar Branch, Islamic Azad University, Shoushtar, Iran

Abstract: Today, organizations are faced with an environment that is characterized by increasing complexity, globalization and dynamics. Therefore the establishment of organizations to sustain themselves is facing new challenges that out of these challenges require more attention to developing and strengthening the skills and abilities of the Internal. This work is done through the intellectual capital of the organization to achieve better performance in the business world use. The main objective of this study was to evaluate the impact of intellectual capital on organizational performance. The population of the study consisted of senior and executive managers and staff of the National Iranian Drilling Company. Present research method is empirical based on the target, and based on the method of data collection, is a descriptive research; terms of the relationship between variables is causal research and specifically, it is based on structural equation modeling. Questionnaires and methods of statistical analysis using of SPSS and PLS software are also used to measure the research variables. The results of the questionnaire analysis showed that Intellectual capital and its dimensions are significantly positive effect on organizational performance.

Key words: Intellectual Capital; Organizational performance; Departments within the National Iranian Drilling Company

1. Introduction

Characterized by increasing complexity, globalization and dynamics. Therefore the establishment of organizations to sustain themselves is facing new challenges that out of these challenges require more attention to developing and strengthening the skills and abilities of the Internal. Intellectual capital in organizations has become the most important measure of developing a successful business framework. Successful organizations have realized that investing on intellectual capitals is essential to increase the capacity of creating valued services. Most of researchers agree that the intellectual capital is their most important value creation. Today the necessity of intellectual capital management and development has become a thoughtful business requirement in macro national level. Concepts of intellectual capital have already passed the initial laboratory and research stages, and in a wider level national development. Intellectual capital is a property, which measures an organization’s capital creation capacity. Intellectual capital has no evident or physical nature and is an asset achieved through employing properties related to organizational performance, and external relationships.

Businesses under continuous is pressure to reduce costs and increase the value they provide to customers. Hence, many organizations are looking for ways to use the service quality, flexibility, innovation, and rapid response, and are distinguished from other competitors’ access to higher efficiency and effectiveness. That is why, in recent decades due to the intellectual capital has become an unavoidable necessity. In the modern strategic environment, the organizations performance only when they consider themselves learning organizations whose impartial is constant improvement of the intellectual capital; because, an organization which is not capable of improving its intellectual capital cannot endure. Today, intellectual capitals are raised to as important and serious factors. Intellectual capital represents the collective knowledge accumulated in personnel, normal organizational programs, and network relationships of an organization.

2. Intellectual Capital

Intellectual capital includes all processes and assets that are not shown on the balance sheet. It also includes all intangible assets (e.g., trademarks, patents and exploitation and trade names) that are considered modern accounting methods. Concepts of intellectual capital have already passed the initial research laboratory and research steps.

3. Human Capital
Human capital represents the knowledge of an organization. Staff intellectual capital through competence, attitude, and intellectual agility make them. Human capitals of an organization are including the skills, expertise, and problem-solving and leadership styles.

4. Capital Structure

Capital Structure consisting of all non-human reservoirs included in the database, organizational charts, process instructions, guidelines and anything that is greater than the value of the tangible assets.

5. Research hypotheses

The main hypothesis: intellectual capital on organizational performance in the National Iranian Drilling Company has a significant positive impact. Sub-Hypothesis 1: human capital on organizational performance National Iranian Drilling Company has a significant positive impact.

Sub-Hypothesis 2: The investment relationship is positive and significant impact on the performance of the National Iranian Drilling Sazmanaydoshkht.

Sub-Hypothesis 3: structural capital on organizational performance in the National Iranian Drilling Company has a significant positive.

6. Methodology and material

The purpose of this study was to evaluate intellectual capital and organizational performance. According to the method of data collection, descriptive research is causal. In this study, the "intellectual capital" as independent variables studied, the dependent variable is the "performance" is. General questions are including questions about respondents' demographic characteristics such as gender, age, experience, and level of education. Questionnaires specific questions, as well as the intellectual, and financial performance are presented as follows:

Questionnaire intellectual capital, by Bntys (2000) is designed. Questionnaire organizational performance by Chadhvy (2010) is designed.

The population of the study consisted of senior and executive managers and staff of the National Iranian Drilling Company form. A total of 150 senior fellows and director of headquarters units and 130 units are operational. We use sampling, and methods of statistical analysis using SPSS and PLS software are also used to measure the research variables.

7. Data and Analysis

In this research, data analysis, descriptive and inferential statistics were used. This means that, for general questions of the questionnaire survey (demographic characteristics) were analyzed using descriptive statistics, inferential statistics used to evaluate specific questions, the questionnaire has been developed.

In order to test the statistical distribution of the Kolmogorov-Smirnov method is used. One-sample T-test checks the status of National Iranian Drilling Company variables taken. Model of structural equation modeling was used to test the research hypotheses and eventually adverse outcomes research, using two independent samples t-test and ANOVA were evaluated. To perform this analysis in SPSS and LISREL was used.

To determine the reliability performance of Cronbach's alpha was used. The results of calculation of Cronbach by statistical software (PASW) SPSS can be seen in Table 1.

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Cronbach’s alpha</th>
<th>Number of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer service</td>
<td>.849</td>
<td>5</td>
</tr>
<tr>
<td>Quality</td>
<td>.808</td>
<td>5</td>
</tr>
<tr>
<td>Efficiency</td>
<td>.820</td>
<td>5</td>
</tr>
<tr>
<td>Innovation</td>
<td>.733</td>
<td>3</td>
</tr>
<tr>
<td>Organizational Performance</td>
<td>.932</td>
<td>18</td>
</tr>
</tbody>
</table>

As seen in the table above, the results indicate the calculation of Cronbach’s alpha reliability of the measurement tool. The content validity of the study is to assess organizational performance.

8. Results

About 11 percent of respondents were women, and about 89 percent of them are men. About 53 percent of respondents from the headquarters unit and about 47 percent of them are administrative units, 20 percent of respondents in the age group 20 to 30 years, about 55 percent of the respondents in the age group 31 to 40 years, and Finally, 25% of respondents in the age group 41 years and above fit.

The largest number of respondents was with a bachelor’s degree (37.6), respectively. The greatest number of respondents, 56.6% of employees with a lot of forms, most of the respondents experienced employees is 21 to 30.

The test results showed that a sample of headquarters within the National Drilling Company of intellectual capital is in good condition. In intellectual capital and human capital are favorable in departments of the National Iranian Drilling Company (with a mean of 3.2506 and a standard deviation of 72,506). This indicates that the level of
individual employees in the organization is desirable.

Results also show that the optimal capital structure of the departments within the National Iranian Drilling Company (mean 3.4067, SD 69744). This represents the accumulated non-ideal situation all the departments within the organization is the National Iranian Drilling Company.

The investor relations in departments within the National Iranian Drilling Company are in good condition (mean 3.1425, SD 76829). This indicates the status of employees or customers and clients is good.

The overall findings are indicating desirable intellectual capital, SD 66173 the average 3.2675, of the departments within the National Iranian Drilling Company's. The results of t-test showed that the departments within the National Iranian Drilling Company of organizational performance in optimal condition.

In this research was to test the hypothesis of a structural equation model was used. The results of the test research hypotheses are presented in Table 2.

The main hypothesis: intellectual capital has a significantly positive effect on organizational performance.

1. Sub-Hypothesis 1: human capital has a significantly positive effect on organizational performance.

2. Sub-Hypothesis 2: The investment relationship is significantly positive effect on organizational performance.

3. Sub-Hypothesis 3: The capital structure has a significantly positive effect on organizational performance.

Acknowledgements

This paper was extracted from M.A thesis entitled "The effect of intellectual capital on organizational performance in departments within the National Iranian Drilling Company" which is implemented in the Islamic Azad University, Shoushtar Branch, Shoushtar, Iran.

References


