Evaluation of Relationship between Intellectual capital and Structure of Organizational Corporate Entrepreneurship (CE) (Case study: Staff of Maskan Bank, Kerman Province)

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ABSTRACT: Human, structural and communicative capitals (elements of intellectual capital) are regarded as key elements of success in organizations. In the recent decade, organizational corporate entrepreneurship has been turned to a remarkable subject for researchers. In the present study, factor of intellectual capital has been evaluated among influential factors on structure of organizational corporate entrepreneurship. In order to achieve research goal, Bountis opinions regarding intellectual capital has been applied. This research is applicable in terms of objectives and in terms of method, it is descriptive-correlational. Population consists of Maskan Bank staff of Kerman province which includes 230 persons and sample volume was randomly chosen based on Cochran formula (144 persons of Maskan Bank staff of Kerman). In order to collect data related to intellectual capital (human, structural and communicative capital), standard Bountis questionnaire was used and Cornwall Willman was used for evaluation of corporate entrepreneurial structure and measuring corporate entrepreneurship rate of organizational structure and their finals have been gained respectively 0/85 and 0/89 by Cronbach Alfa. To analyze data from Pearson correlation analysis, mean test was applied. Results of Pearson correlation test suggest there is a positive and significant relationship between intellectual capital and organizational corporate entrepreneurship. Considering findings of this research, it is possibly mentioned in case management of intellectual capital is focused in an organization, tendency to organizational corporate entrepreneurship will improved in that organization.

Key word: Structure of corporate entrepreneurship, human capital, relational capital, structural capital, organizational corporate entrepreneurship

INTRODUCTION

By occurrence of technology revolution, increasing importance of knowledge, knowledge-based economy and impact of innovation, creation and novelty as defining elements of compete in the global pattern will alter (Aghaei, 1999). Creativity and innovation almost consist of all aspects of life, mechanisms, processes, activities, and micro and macro aspects of the organization. Organizational creativity and innovation leads to growth, progress and development and they provide capabilities, facilities and new opportunities for the organization's activities and programs, as well as improving quality and improvement of organization work life. Positive and influential outcomes of innovation processes cause flexibility increase, capability level improvement and learning capabilities of the organization (Moghim, 2009). The place in which businesses are working today is a new environment that are used by continuous innovations, development of communicative technologies, network communication, expansion of technological factors and factor promotion, economic growth and development.

Although we are not able to measure these properties, we will at least find out investment importance on these properties based on paying attention and being aware of their role in organizational performance (Khavandkar and Motaghi, 2009). One of the intangible properties in organization is its intellectual capitals which are specifically for that organization. The intellectual capital is a valuable type of capital which is known as
intangible property of an organization (Stewart, 1997). Today’s economics is based on intellectual capital and their commodities are knowledge and information (Bontis, 2000). The term “intellectual capital” in norm comes back to difference between value of tangible properties (physical and financial) and market. Carl Eric Swibi, Leaf Edwinston and Tom Stewart are the first people who used this expression. The intellectual capital is typically divided into three elements as human capital, structural capital and communicative and consumer capital (Bontis, 2000). The researches show that outcome of the intellectual capital is innovation. Innovation generally comes back to product creation, technology or better or more efficient ideas and one important issue in economic studies, trade, corporation entrepreneurship, design and planning, technology, sociology and engineering. Nowadays, scientific and industrial societies have found that organizations can maintain their long-term excellence in competitive areas by focusing on innovation and reinforcement and promotion of innovation and innovative activities inside themselves (Mohammed Assi, 2012). Today mangers have become aware of the role of intangible resources in the organization in order to gain competitive advantage by creation and exploit them. Considering complex environment of today, one way to meet the requirements of environmental organizations is turning to organizational corporate entrepreneurship. Organizational corporate entrepreneurship in today competitive environment has found a high importance until some experts consider it as one of the production factors as work and capital. Managers should try moving for survival and growth in today competitive environment besides exploiting intellectual capitals of the organization toward organizational corporate entrepreneurship (AhmadpourDariani, 1978). Considering increasing importance of corporate entrepreneurship in modern areas of the world and also significance of transformation and change in the organizational environment and similarly is based on necessity of structure existence and entrepreneurial environment in organizations to advance toward present research entrepreneurship following dimensions of intellectual capital and structure of organizational corporate entrepreneurship of Maskan Bank of Kerman Province.

Theoretical Basis and Research Hypothesis

**Intellectual Capital**

Intellectual capital is provider of a new source base through which the organization can compete. Bontis believe intellectual capital is an attempt to effectively use knowledge (ultimate production) against information (raw material). Intellectual capital is an expression to combine intangible properties of the market, intellectual properties, human properties and infrastructure asset that enables the organization to carry out its activities (Bontis, 2000). From Ross’s point of view et al. intellectual capital consists of all processes and properties that are not generally shown in balance sheet and it includes all intangible properties (e.g. commercial brands, patent, exploitation and trademarks) which are considered in modern accounting methods. In other word, intellectual capital is combination of member’s knowledge of the organization and application of their knowledge (Rooset al, 1997). Stewart considers the intellectual capital consists of knowledge, information, intellectual asset and experience which can be utilized for wealth creation. Collective intellectual capital is mental ability or key knowledge as a collection. Some others have regarded the intellectual capital as merits of a corporation that these merits are generally related to experience and proficiency of individuals within an organization (Stewart, 1997). Knowledge and experience of individuals within the corporation can create value and it carries out through processes of knowledge exchange and creation. It should be noted that these merits are not merely created by individuals and inside the organization. But also, it is sometimes created due to an environment the organization is placed there. For example, a cooperation network among corporations in a specific area could be pointed out (FeizBakhsh, 2005). In general, most researchers agree on three elements as human capital, structural capital and consumer capital (Bontis, 2000).

**Dimensions of Intellectual Capital**

In general, researchers of intellectual capital field agree on its three dimensions:
1- human capital, 2- structural capital, 3- relational capital which has been more explained.

**Human Capital**

Human capital is base of intellectual capital and the initial element to conduct its tasks. Human capital is related to certain elements as staff knowledge, their capabilities and skills and their behavior is in relation with incentive functions for which consumers are willing to pay and benefits of the corporation is raised from it. Moreover, employees with such skills and knowledge are on the top of all employees. Structural, innovative and consumer’s capital all depend on human capital so that human capital turns knowledge into market value by altering these three capitals and through this knowledge and non-material information are transformed to material, favorable outputs and even proper shapes of these three capitals (Bontis, 2000).
Structural capital
Bounhis et al. (2000) define structural capital including all non-humanitarian source of knowledge in an organization which consists of database, organizational charts, process instructions, strategies and whatever that value the organization more than tangible assets (Haji Karimiand Bohtaei, 2009).

Communicative capital
Consumer’s capital acts as a bridge or accelerator of intellectual capital function which is regarded as the main necessity and determinant factor in transformation of intellectual capital to market value. As a result, business performance of the organization is essential and determiner. Market value or organizational performance cannot be gained without consumer’s capital. Consumer’s capital has a direct relationship with business performance of the corporation. In order to fundraise consumer’s capital, we should rely on the support provided by human, structural and innovative capitals (Haji Karimiand Bohtaei, 2009).

CE and organizational CE
In this section we present some important definitions of corporate entrepreneurship and organizational corporate entrepreneurship.

Corporate entrepreneurship
Term of corporate entrepreneurship is derived from a French work “Entreprendre” meaning “pledge”. According to Webster’s Collegiate Dictionary, entrepreneur is someone who undertakes the risk of an economic activity to organize, manage and assume it (Ahmadpour Dariani, 1978).

Organizational Corporate Entrepreneurship
There are a lot of similarities between corporate entrepreneurship and organizational corporate entrepreneurship and their difference is that organizational corporate entrepreneurship is conducted in the corporation. The main subject of it is to create or develop an entrepreneurial spirit within the corporation whereby it will upgrade (Jahnagiri, 2003). Organizational corporate entrepreneurship is a culture of creating innovation in products or services by applying creativity and new ideas and taking risks in order to achieve optimal benefit. In other word, it is a set of strategies and behavioral tendencies supported by culture and structure of the organization in order to enhance, grow and apply individuals’ creativity and innovations which result in constant development and organization’s prominence. An entrepreneurial organization holds an atmosphere that can raise mood of activity, opinion expression, reflection and thinking (regarding proposals which are received from other sectors and groups) (Moghimi, 2009). An entrepreneurial organization holds proper flexibility in comparison with changes (internal and external) and they attempt compete with other rivals by selecting aggressive strategies in order to maximize their innovations (Aghaei, 1999).

Risk taking
Decision making and doing activities without relying on specific and thorough knowledge regarding possible outcomes (Dessand Lumpkin, 2005).

Innovation
A process to apply an innovative idea and transform it to a proper product, service or method (Hisrich, 2005).

Leadership
Means being a leader and commencer in using opportunities or entering new markets. Entrepreneurs have a tendency to be active not passive (Dess and Lumpkin, 2005).

Strategy
In order to succeed CE should be considered from the perspective of strategic management. Organizational corporate entrepreneurship should be part of the organization’s strategic plan and an inseparable and essential component of this program (Moghimi, 1998).
Management Support
Managers cannot only enhance the interest toward corporate entrepreneurship, but also they are able to affect pledges of their subordinates after creation of innovative activities. For taking advantages of entrepreneurial activities by an organization, such commitments are necessary (Middle managers. 2002).

Availability of resources
Middle managers need to ensure the availability of resources for innovative activities in order to be encouraged risking and taking action. Allocating essential and sufficient resources to entrepreneurial activities and facilitating resource using by the concerned departments or people with new ideas, is foundation of CE institutionalization (AhmadpourDariani, 1978).

Organizational structure
In today's surging economy, organizations that do follow current developments will go the way that the dinosaurs perished. Many large organizations have lost their initial entrepreneurial spirit. While these organizations are growing, their capabilities in innovation and dynamism will stop due to size and sectional successes. In order to survival of dynamic environments, the organizations are encouraged to follow corporate entrepreneurship (Aghaei, 1999). Structure and relationship can maintain organization components next together and transfer data. And they form and control implementation process of new ideas. Structure and relationships will affect innovation and risk-taking almost through all stages of life. In case structure and relationships are designed for enhancing innovation and opportunity using, this impact will be more. They do it through distribution of adequate framework and information which enable all staff of all levels of the organization following up new ideas.

Review of Literature
SchiomaVelro, (2008) by studying relationship between intellectual capital and improvement of organization function reached the conclusion that the main activity in intellectual capital management is to improve organization's processes and management techniques to create knowledge capital. Robert et al. (2009) showed in a study titled "Enabling Intellectual Capital" that there is a positive significant relationship between organic structure and components of the intellectual capital. Sheih et al. (2010) while evaluating knowledge and intellectual capital creation of banks showed process of knowledge creation has positive and significant effect on the intellectual capital.

Objectives of Research
The main goal of this project is to study relationship between the intellectual capital and structure of organizational corporate entrepreneurship of Maskan Bank of Kerman Province.

Research Hypothesis
Main hypothesis: there is a positive and significant relationship between intellectual capital and structure of organizational corporate entrepreneurship.
There is a positive and significant relationship between human capital and structure of organizational corporate entrepreneurship.
There is a positive and significant relationship between structural capital and structure of organizational corporate entrepreneurship.
There is a positive and significant relationship between communicative capital and structure of organizational corporate entrepreneurship.

MATERIALS AND METHODS
RESEARCH METHOD

Since this research has been conducted in real and concrete organizations and its results could be practically utilized, it is an applicable research in terms of objectives. Since relationship between two variables of intellectual capital and organizational corporate entrepreneurship of staff are being studied, this research is co-relational and it is descriptive in terms of data collecting and hypothesis testing.
Research Conceptual Model

Population and Sampling
Population of this research consist of Maskan bank staff in Kerman province in 2013 which are about 230 persons and research volume based on equation (1) and in trust level is 95% and error of 5% was determined 144 persons. In order to choose samples, random stratified sampling method has been used.

\[
n = \frac{Z^2pq}{d^2} \cdot \left(1 + \frac{1}{N} \left(\frac{Z^2pq}{d^2} - 1\right)\right)
\]

METHOD AND DEVICES OF DATA COLLECTING AND DATA ANALYZING

In this research, in order to complement research literature and theoretical basis, library research has been used and questionnaire has been utilized to collect data. The used questionnaires have been considered based on attitude measurement method and 5-choices Likert scale. In order to collect data related to the intellectual capital (human, structural and communicative capital), Standard questionnaire of Bountis was used and for measuring entrepreneurial structure and entrepreneurship rate of organizational structure, Cornwall Wirlman's questionnaire was used whose reliability through Cronbach's alpha was gained respectively 0.85 and 0.89. Questionnaire dimensions of organizational corporate entrepreneurship are as below: risk-taking, innovation, leadership, management support, availability of resources, entrepreneurial strategy and organizational structure. But what is regarded as a measurement criterion in this research is general structure of organizational corporate entrepreneurship; therefore evaluation of dimensions is avoided in the analysis. In order to analyze data raising from the questionnaires, software of the Social Sciences (ssps) has been applied.

RESULTS

Findings raised by Demographic Features
Findings show that 97.47% of the people were men and 20.53% of them were women. 43.7% were from 25 to 35 years old. 38.3% of people were from 36 to 45 years old and also 18.1% had more than 45 years old. 35.10% of the staff held Postgraduate Diploma or less and 58.20% of them had BA and 6.7% holding MA degree.
Findings Resulting from Study of Research Hypotheses

Evaluation of main hypothesis of the research: the intellectual capital has positive and significant effect about 0/635 on entrepreneurial structure. Moreover, t-statistic related to relationship between two variables is about 7/94 which is greater about 95% (1.96) than critical values of t-statistic in a significant level. Therefore, the main hypothesis of research is confirmed which is based on a significant relationship between intellectual capital and structure of organizational corporate entrepreneurship. Results of the study have been demonstrated in table (1).

<table>
<thead>
<tr>
<th>Component</th>
<th>Correlation Coefficient</th>
<th>T-statistic</th>
<th>Confirmation or Rejection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intellectual Capital</td>
<td>0/635</td>
<td>7.94</td>
<td>confirmed</td>
</tr>
</tbody>
</table>

Evaluation of the secondary hypothesis of the research: according to the results, correlation coefficient between variable of human capital and organizational entrepreneurship structure has been estimated about 0/896 which shows high correlation between these two variables. T-statistic of this component is equal to 6/19 so that the first secondary hypothesis of the study demonstrating a significant relationship between human capital and structure of organizational corporate entrepreneurship is confirmed. In addition, there is a correlation about 0/765 between structural capital and structure of organizational corporate entrepreneurship which shows very high correlation of this component with structure of organizational corporate entrepreneurship. T-statistics of this relationship has been estimated 7/23 as well, so that the secondary hypothesis of the research is confirmed and there is a positive and significant relationship between structural capital and structure of organizational corporate entrepreneurship. Statistical analysis shows that there is a positive and significant relationship about 0/545 between communicative capital and structure of organizational corporate entrepreneurship. Since t-statistic is also 6/96, the third hypothesis of the research is confirmed too. Table (2) shows a relationship between values of the intellectual capital and structure of organizational corporate entrepreneurship.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Correlation Coefficient</th>
<th>T-Statistic</th>
<th>Confirm or reject</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Capital</td>
<td>0.896</td>
<td>619</td>
<td>Confirmed</td>
</tr>
<tr>
<td>Structural Capital</td>
<td>0.765</td>
<td>7.23</td>
<td>Confirmed</td>
</tr>
<tr>
<td>Communicative Capital</td>
<td>0.545</td>
<td>6.96</td>
<td>Confirmed</td>
</tr>
</tbody>
</table>

CONCLUSIONS

Results arising from the relationship between the intellectual capital and structure of organizational corporate entrepreneurship showed that there is a positive and significant relationship between these two variables. In other word, the more studying staff has higher intellectual capital is, structure of organizational corporate entrepreneurship and rate of organizational corporate entrepreneurship is increased in them and the above result has been proved by table-1. Additionally, table 2 shows there is a positive and significant relationship between dimensions and intellectual capital and structure of organizational corporate entrepreneurship. Overall, considering the results of this research indicates that the study organization should invest particularly based on complicated situation and environmental variable in order to be able to stay in competitive scene. Considering the results and findings, some proposals are presented as below: designing support system and encouraging top ideas of the staff in order to apply them in the right time in operational processes of the organization, an attempt to create a supportive culture through designing incentive and encouraging systems to enhance creativity and innovation, learning and human resource development, designing and planning to improve internal and external communications encouraging managers to embrace changes and saving opportunities, encouraging managers to present creative and innovative ideas and supporting them.

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