INVESTIGATING THE RELATIONSHIP BETWEEN DIMENSIONS OF ORGANIZATIONAL STRUCTURE AND INTRAPRENEURSHIP IN BOJNORD CITY PUBLIC AND PRIVATE GIRLS HIGH SCHOOLS

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Abstract
The purpose of this study is to investigate the relationship between organizational structure and intrapreneurship in Bojnord city public and private girls high schools. This study in terms of purpose is an applied research and in terms of collecting data is descriptive and correlation. The statistical population of this study includes 101 people of educational and administrative assistants in public and private girls high school which 80 of them were selected randomly based on Cochran formula. Data was gathered by Robbins organizational structure questionnaire with 24 questions and Margaret Elizabeth Hill intrapreneurship questionnaire (2003) with 60 questions; Validity of questionnaires were approved formally by professors and reliability of them were confirmed by Cronbach's alpha (respectively 0.940 and 0.970). Findings show that the relationship between organizational structure and its components (formalization, complexity, centralization) with intrapreneurship in public and private schools are significantly inverse.

Keywords: Organizational structure, Intrapreneurship, Formalization, Complexity, Centralization, Bojnord.

1. Introduction
Since today is an era of changing, and in work place we have unstability and uncertainty instead of stability, so organizations problems will not be addressed by past solutions\cite{1}. The bigger is the government, the more problems government should be solve in order to develop country. These problems may cause government bureaucracies not be able to adapt complex environment changes due to rigid structures. As a result, a large part of government body that should have an essential role in country’s development will get stock in bureaucracy constraints and not be able to meet society needs and execute development plans successfully\cite{17}.

Intrapreneurship is one of the most important and complex issues which modern societies in third millennium are faced with. Today, organizations are faced with complex challenges; these changes are happening rapidly, people are establishing new connections and some forms of competition are emerging and different countries pay special attention to economy-oriented entrepreneurship and entrepreuners in management and economy knowledge. Supporting entrepreneurship and creating appropriate ways for its development are tools for economic development of countries, specially developing countries\cite{16}.

Therefore, the managers and statements by correct planning and adopting systematic policies in order to strengthen entrepreneurial spirit, recruitment and training entrepreneurs and talented people and motivating them can change the potential to action and by supporting entrepreneurs and building entrepreneurial culture can overcome problems and cause economic and social development and
growth. To create dynamism, creativity, innovation, efficiency and entrepreneurship in organizations, it is essential to have powerful and entrepreneur managers with cultural infrastructure[12]. Iran with a smart and talented population abundant natural resources, GDP is in a low level and a lot of educated and youth are unemployed, it is emphasized on creating jobs in public activities in different levels and since many companies due to low productivity, lack of demand and so on placed in bankruptcy or closed and competitive position in world market is very weak, “entrepreneurship development” approach is essential[3]. Organizational structure, relationship overcame jobs, operating process and systems, individuals and groups is trying to achieve a common goal[18]. Enterpreneurship is the process of creating value through creating an unique set of resources in order to take advantages of opportunities[19].

2. The statement of problem
Generally, proper management in organizations, organization leadership, and moving from existing situation to desired is run for better organizational future at any moment. Ministry of education because of special and complex structure and goals and also committed forces have a great importance, in fact the implementation of exclusive education is possible by valuing innovation and participation of employees. Dynamism, complexity, ambiguity and tradition aversion are characteristics of today’s organizations and permanently influenced by their environment and accepted changes as an unavoidable situation[13]. Therefore appropriate organizational space for managers and employees in society and organizations is one of conditions that should be noticed rationally in order to make people love their society and organizations in which they operate[10]. In this regard and given that pulse of economy is in hand of ministry of education and supporting entrepreneurship is the one of the important subjects in Macroeconomic policies and it is noticed especially in economic, social and cultural development rules[14]. Basically, this study seeks whether there is a relationship between organizational structure and its components (formalization, centralization and complexity) with intrapreneurship.

Due to there is no research about investigating the relationship between these two in public and private schools of Bojnord city, researchers try to indentify the relationship between them, and offer scientific and practical solutions based on findings of statistical data analysis, and do something for improving existing situation.

Literature Review
Khalife Soltani in “the relationship between organizational structure and intrapreneurship of staff managers in physical education organization”, found that there is a significant relationship between these two variables[8]. Khalife Soltani et al in “the relationship between organizational structure and intrapreneurship of staff managers in physical education organization of Iran”, found that there is a negative significant relationship between these two variables[9]. Jaafari in his thesis “the relationship between organizational structure and intrapreneurship in physical education organization of Western Azarbayjan province” found that formalization and centralization have a negative significant relationship with intrapreneurship, but there is no relationship between complexity and intrapreneurship[5]. Azma and Aghayi in “the relationship between organizational structure and intrapreneurship in Ministry of Agriculture Jihad of Northern Khorasan” found that there is an inverse significant relationship between complexity, centralization and formalization with intrapreneurship[2].
Mokhtari Hasan Abad in a paper “investigating the relationship between organizational structure and intrapreneurship in institute of research and productivity of Islamic Azad university” found that there is a significant relationship between them[7].

Alimardani et al by investigating the relationship between organizational structure and intrapreneurship in Shahid Beheshti university, found that there is a significant relationship between these variables and an inverse significant relationship between components of organizational structure (formalization, complexity and centralization) with intrapreneurship and a significant relationship between specialization and intrapreneurship[13].

Delfani in his thesis “the relationship between organizational structure and employee’s innovation in general directorate of physical education of Khuzestan province”, found that there is a negative significant relationship between formalization and centralization with innovation and entrepreneurship, but there is no significant relationship between complexity and innovation[4].

Kooze Chian et al in “the relationship between entrepreneurial structure and organizational effectiveness in physical education organization” found that its structure is bureaucratic and such a structure is not appropriate[15].

Heidari Nezhad et al investigated the relationship between organizational structure and intrapreneurship in general directorate of physical education in Systan & Baluchestan province, found that there is an inverse significant relationship between components of organizational structure include formalization, centralization and complexity with intrapreneurship[7].

4. Hypothesis
4.1. Main Hypothesis
- There is a significant relationship between dimensions of organizational structure and intrapreneurship in girl’s public and private high schools.

4.2. Secondary Hypothesis
- There is a significant relationship between complexity and intrapreneurship in girl’s public and private high schools.
- There is a significant relationship between formalization and intrapreneurship in girl’s public and private high schools.
- There is a significant relationship between centralization and intrapreneurship in girl’s public and private high schools.

5. Methodology
This study in terms of nature and purpose, and its use is an applied research and in terms of research goals is an descriptive research and cross-sectional survey.

5.1. Statistical Population
Statistical population of this study is all executive and educational principals of girl’s public and private high schools (Technical, Vocational and work and knowledge) in Bojnord city which were 101 individuals.

5.2. Sample Size Determination
The sample size of this research is calculated by Cochran formula. The random sampling was used for sampling.

\[
n = \left\lfloor \frac{(1.96^2 \times 0.5 \times 0.5 \times 101)}{(0.05^2 \times 101) + 1.96^2 \times 0.5 \times 0.5} \right\rfloor \cong 80
\]

5.3. Data Collection Tools

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To gather data about the topic and its literature review library procedures (Internet, academic books, papers and thesis) were used. In field research method, questionnaire was used for collecting data. In order to do that, Robbins organizational structure questionnaire (1978) was used which measures three dimensions of organizational structure, formalization, complexity and centralization, by Likert scale. Also for investigating dependent variable, Marguerite Elizabeth Hill intrapreneurship questionnaire with interval scale and based on Likert scale was used.

5.4. Questionnaire validity test
Calculating validity of data (by Cronbach alpha method) was done by SPSS software, results are shown below:

<table>
<thead>
<tr>
<th>Row</th>
<th>Title</th>
<th>Validity (Cronbach Alpha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Complexity</td>
<td>%88</td>
</tr>
<tr>
<td>2</td>
<td>Formalization</td>
<td>%85</td>
</tr>
<tr>
<td>3</td>
<td>Centralization</td>
<td>%85</td>
</tr>
<tr>
<td>4</td>
<td>Organizational structure</td>
<td>%94</td>
</tr>
<tr>
<td>5</td>
<td>Intrapreneurship</td>
<td>%97</td>
</tr>
</tbody>
</table>

According to above table, Cronbach alpha is more than 0.70 which expresses the high reliability of questionnaires and compatibility of questions, so the questionnaires of this study have enough validity.

5.5. Data analysis method
In this study, both methods of descriptive and inferential statistic was used for data analysis, measurement scale is Likert. In descriptive analysis frequency distribution table, central and dispersion indexes and charts were used. Spss software is used in order to test normality of variables and hypothesis of this study.

6. Findings
6.1. Inferential Statistic
Before doing statistical tests, Normal distribution of data should be examined in order to choose appropriate method. For achieving this goal, Kolmogorov-Smirnov test was used. For examining normality of research variables, it is done as following:
H₀: variable distribution is normal.
H₁: variable distribution is not normal.

<table>
<thead>
<tr>
<th>Table (2)- Kolmogorov–Smirnov test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Parameters</td>
</tr>
<tr>
<td>Average</td>
</tr>
<tr>
<td>Deviation</td>
</tr>
<tr>
<td>Maximum Difference</td>
</tr>
<tr>
<td>Complete</td>
</tr>
<tr>
<td>Positive</td>
</tr>
<tr>
<td>Negative</td>
</tr>
<tr>
<td>Kolmogorov-Smirnov Statistic</td>
</tr>
<tr>
<td>Significance Level</td>
</tr>
</tbody>
</table>
Based on table (2) and given that significance level of all data is more than 0.05, so it can be said that distribution of data obtained from questionnaire is Normal. So in order to test hypothesis parametric statistic can be used.

\[
\begin{align*}
H_0 : \rho &\neq 0 \\
H_1 : \rho & = 0
\end{align*}
\]

**6.2. Secondary hypothesis test**

There is a significant relationship between formalization, complexity and centralization with intrapreneurship in girl’s public and private schools.

**Table (3)- Pearson correlation coefficient between formalization, complexity and centralization with intrapreneurship.**

<table>
<thead>
<tr>
<th>Intrapreneurship</th>
<th>Statistical Sample</th>
<th>Pearson Correlation Coefficient</th>
<th>Significance Level</th>
<th>Total Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Public Schools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-0.638</td>
<td>0.000</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-0.552</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-0.419</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Private Schools</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>-0.725</td>
<td>0.000</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-0.660</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-0.479</td>
<td>0.011</td>
<td></td>
</tr>
</tbody>
</table>

Correlation is significant in 0.05 error rate.

In order to investigate the correlation between two variables we use two hypothesis $H_0$ and $H_1$ which $H_0$ expresses there is no significant relationship between two variables and $H_1$ expresses there is a significant relationship between two variables. Based on table (3), given that the significance level is smaller than 0.05; the hypothesis that there is no significant relationship between organizational structure components and intrapreneurship is not accepted and the significant correlation between organizational structure components include formalization, complexity and centralization with intrapreneurship is confirmed. Regarding Pearson correlation coefficient and significance level from statistical data analysis, in 0.05 error rate it can be said that there is an inverse relationship between dimensions of organization structure and intrapreneurship. This inverse correlation in relationship between formalization and intrapreneurship is more than other two variables.

**6.3- The main sub-hypothesis test**

There is a significant relationship between organizational structure and intrapreneurship in girl’s public and private high schools.

**Table (4)- Pearson correlation coefficient between organizational structure and intrapreneurship**
Organizational structure

<table>
<thead>
<tr>
<th>Intrapreneurship</th>
<th>Statistical Sample</th>
<th>Pearson Correlation Coefficient</th>
<th>Significance Level</th>
<th>Total Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Schools</td>
<td></td>
<td>-0.496</td>
<td>0.000</td>
<td>80</td>
</tr>
<tr>
<td>Private Schools</td>
<td></td>
<td>-0.479</td>
<td>0.011</td>
<td>27</td>
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<tr>
<td></td>
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</tbody>
</table>

Based on table (4), significance level is smaller than 0.05, so the hypothesis about there is a relationship between organizational structure and intrapreneurship is accepted by a correlation of 0.419. Given that this amount is negative, so in 0.05 error rate and 0.95 significance level, it can be said that the relationship between organizational structure and intrapreneurship is inverse and significant.

7. Conclusion and discussion

In this paper, the relationship between organizational structure and its components (formalization, complexity, centralization) with intrapreneurship in girl’s public and private high schools of Bojnord city was investigated. Results of Pearson correlation test for organizational structure components show that:

- There is a significant inverse relationship between formalization and intrapreneurship in girl’s public high school; on the other hand, if formalization increases in schools, intrapreneurship will decrease and vice versa if formalization decreases, it can help improve intrapreneurship. These results are similar to findings of Heidari Nezhad et al, Delfani, Alimardani et al, Azma & Aghayi, Khalife Soltani et al and Jaafari.

- There is a significant inverse relationship between centralization and intrapreneurship in girl’s public high school; on the other hand, if centralization increases, intrapreneurship will decreases. So if schools want to move toward intrapreneurship and process improvement, conditions should be prepared to decrease centralization. These results are similar to findings of Heidari Nezhad et al, Delfani, Alimardani et al, Azma & Aghayi, Khalife Soltani et al and Jaafari.

- There is a significant inverse relationship between complexity and intrapreneurship in girl’s public high school; therefore by decreasing complexity, intrapreneurship will increase. These results are similar to findings of Heidari Nezhad et al, Alimardani et al, Azma & Aghayi, Khalife Soltani et al and Jaafari.

- Finally, data analysis related to main hypothesis shows that there is a significant inverse relationship between organizational structure and intrapreneurship. These results are similar to findings of Heidari Nezhad et al, Alimardani et al, Azma & Aghayi, Khalife Soltani et al and Jaafari.

So based on statistical data analysis, below suggestions are offered:

- Related to inverse relationship between organizational structure and intrapreneurship, it is suggested that senior managers review organizational structure and design in it in a way which is flexible against changing environment, and decrease cumbersome rules. They should participate employees in decision making and make an environment to create clear and two-way communications.
- Related to inverse relationship between organizational structure and complexity, it is offered that principals should give more freedom in professional matters to teachers, in order to use their knowledge and experience for solving students problems and helping each other. Also it is suggested that instead of extreme emphasis on university degree, considerate employee’s quality of work, effectiveness and efficiency. By changing updating organizational positions and redefining job descriptions, it is possible to decrease complexity in organization.

- Related to inverse relationship between organizational structure and formalization, it is suggested that it is possible to increase intrapreneurship and decrease formalization generally by increasing development of collaborative management and specially by employee participation in goal setting, decision making, problem solving and creating changes in organization.

- Related to inverse relationship between organizational structure and centralization, it is offered that in addition to professional growth of teachers, increasing employee’s participation in planning and decision making can cause organizational development. Regarding councils as a proper place for dealing with teacher’s personal issues can help teachers and their health and achieving school’s goals. Moreover, managers should believe participation and provide its way for colleagues.

8. Future Research
- Study the relationship between organizational structure and intrapreneurship in other organization.
- Investigating the barriers of intrapreneurship and offering solutions to pass through it.
- Investigating the relationship between type of organizational structure and intrapreneurship in other education centers.
- Investigating the effect of organic and mechanic structures on higher education centers intrapreneurship.

9. References