STUDING THE RELATIONSHIP BETWEEN JOB CHARACTERISTICS MODEL AND LEARNING ORGANIZATION IN MASJEDSOLEYMAN OIL AND GAS PRODUCTION COMPANY

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ABSTRACT

Learning organization has an ability of creating, obtaining and transferring knowledge and organizes its behavior as reflects new ideas and knowledge. According to the job characteristics theory, the employees will be motivated to do the job when they feel their job is worth and will have feedback from their performance. The purpose of this survey has been the investigation of the relationship between learning organization and job characteristics model in Masjedsoleyman Oil and Gas production company. By using random stratified method and Cochran formula, 14 person were chosen as a sample among 597 employees of Masjedsoleyman oil and gas production company. The research method in this survey was descriptive. In order to collect research data, the questionnaires were used. For analyze the data, the descriptive and inferential statistical procedures were applied by using the statistical software SPSS. The results showed that in the 99% confidence level, there was a significant positive correlation between learning organization and job characteristics model and the main hypothesis of research was confirmed. Also there was a significant positive correlation between all dimensions of job characteristics and learning organization. Among coordinate variables, there was a significant positive correlation between two original variables and education range and job type. No significant correlation was found between gender and job experience with two original variable.

KEYWORDS: Job characteristics, learning organization, task variety, task identity, task significance, autonomy and job-based feedback.
INTRODUCTION

In these days, making the learning organizations' traits is become mooted as a dominant theory in theorization field. Based on that, successful organizations should internalize learning organizations' characteristics in themselves. Appearance of learning organization in contrast with traditional organizations is passage from static to dynamic. This, in fact is a new approach in field of organizations' management that challenges too many customary management principles and ways actually and in spite of passing ten years of its appearance on account of its depth and large extent, still there is many important aspects of this idea that its disclosure needs more research. Present fact is that, nowadays, organizations contrary to past are endeavoring in complicated and dynamic environment. In such an environment, rapid and intense changes are occurring and the more environment complication and changes, the more environmental uncertainty. As much as environmental uncertainty is more, organizations will need more knowledge and expanding information of environmental factors in order to adapt themselves with environmental changes (Watkins and shindel, 1990:152).

Since human resource of an organization has played a significant role as the most important strategic source in achieving organization's objectives and it is considered as motor force of an organization, their conception and perceptions about their job are effective on organization's life, efficiency and effectiveness. Work design motivation approach, had active effect on organizational effectiveness activities and was an approach for supplying the needs and staff satisfaction and intend to performance development and individuals' satisfaction by jobs enrichment. This motivational method offer people autonomy, responsibility, completion of a job to the end and job-based feedback. Among methods and categories for promotion of motivation and job satisfaction, job characteristics redesign and particularly Hackman and Oldham's model has special place.

Based on this model, job characteristics included three parts:

1-core dimensions

2-critical psychological states

3-personal and work outcomes (Jamshidian & Takhtavous, 2004: 17)

This theory on work design is emphasized on job satisfaction or job dissatisfaction. In this method, work design can be done so that employees feel satisfied with their jobs. In utilizing this method, connoisseurs believe that enriching specific elements of job, can be effective on people's psychological state change and increase employees' effectiveness (Ross, 2005: 255).

Job characteristics in staff and line activities in Oil Company have little motivation nature on account of the nature of assigned duties. So, work redesign and reengineering is unavoidable
with regard to the particular and exclusive role of Oil Company in providing 98 percent of the country's energy and besides export crude oil as dominant goods in supplying foreign exchange. By perception of the importance of this issue it is sounded that job characteristics and traits of servicing in Oil Company, should be improved and reviewed in line of making learning organization.

RESEARCH OBJECTIVES

1- Determine the relationship between learning organization and job characteristics model in Masjedsoleyman oil and gas production company.

Determine the relationship between learning organization and task variety.

Determine the relationship between learning organization and task identity.

Determine the relationship between learning organization and task significance.

Determine the relationship between learning organization and task autonomy.

Determine the relationship between learning organization and job feedback.

LITERATURE REVIEW

1. History of learning organization conceptualization

Organization approach as a learning system was brought up in the early 20th century. Fredrick Winslow Taylor who compiled effective scientific management theory believes that when management realities are expressed and deliberated for a manager, he or she can easily transfer the experiences to others and as a result enhance the organization efficiency.

The approach of learning organization was reviewed and reformed by theorists such as Richard Cyert and James March (1963) and Herbert Simon in 1950. According to most researchers' statement, the concept of learning organization, from the end years of 20th century, attracted the attention of many researchers and organizations' leaders (Ortenblad, 2002: 215).

After 80th decade, connoisseurs such as Pedler, Argrice and Schon, Marsik, Watkiz, Pjeffert entered the field of learning organization and each of them engaged in defining and explaining this concept in their own way and with special approach. Of course, all of them admitted that the publication of the book, fifth principle "art and science of learning organization" written by Peter Senge, is the most important intellectual trend in this paradigm and Senge has been founder of scientific thought of learning organization in past years (Sobhaninejad 2006: 25).

2. Learning organization
Michael J. Marquardt presented a relatively comprehensive definition in his worthy book as "building a learning organization". According to this definition, learning organization is an organization that learns powerfully and collectively and changes itself steadily in a way that could collect, manage and use information in a better way with purpose of organization's success.

According to Marquardt's experience, learning organization cannot be stable without knowledge and development of five sub-systems that have been shown in figure 1.

These sub-systems are learning, organization, people, knowledge, technology. All of these five sub-systems are vital for stable and continuous organization learning and assurance of organization success.

FIGURE 1: LEARNING ORGANIZATION SYSTEM MODEL (MARQUARDT, 2006:33)

Sub-systems such as organization, people, knowledge and technology are vital for promotion and enhancing learning. Each of them, in turn, impresses other four sub-systems. These sub-systems are essential factors in making organization learning and productivity and protecting them. Five sub-systems are connected and completed with each other dynamically. If a system is weak or does not exist, other sub-systems will be weakened glaringly.

3. Works design

Works design is merging work contents (duties, communication, behaviors, functions, responsibilities, financial and non-financial service compensation and needed quality for working (skills, ability, experience and knowledge) for any job, in a manner that meet staff needs. A way or method that tasks mixed together so that individual jobs were generated and impress performance and employees job satisfaction.

3-1. Works design method
Job simplification

In job simplification, like making a pin, a job breaks down into steps and small pieces. This method results in works specialization.

Job rotation

Job rotation involves the movement of employees through a range of similar jobs and at a specific time. In job rotation programming, employees change jobs in similar and simple jobs in periodic.

Job enlargement

Job enlargement is job horizontal extending for employee towards the opposite of job simplification. According to this theory, the number of duties will increase in a job.

Job enrichment

Job enrichment means a vertical expansion of a job based on increasing responsibilities and it is more possible by job fortifying, independence, responsibility and self-controlling.

Job characteristics model

This method that presented by Hackman and Oldham in 1975, is emphasized on aspects of job satisfaction and job dissatisfaction in works design and is consisted of three following parts:

2- Core job dimension including task variety, task identity, task significance, autonomy and job-based feedback.

3- Critical psychological states including experienced meaningfulness of the work, experienced responsibility for outcome of the work, knowledge of the actual results of the work activities.

4- Personal and work outcomes including promotion of intrinsic motivation, promotion of job performance, high job satisfaction and low absenteeism and turnover (Jamshidian and Takhtavous:2004:27).

In job characteristics theory, work dimensions are as below:

1- Completion of work should require a variety of different skills and abilities

2- Work identity should be clear; it means employees should perform a whole job completely instead of completion of a piece of work.

3- Job should be important in viewpoint of the person who is responsible for completion of it and others within or outside the organization.

4- Work should be designed so that the worker has autonomy and freedom and could make decision of job trend.
5- Designing works should be in a manner that worker can get feedback of his performance (saadat, 2005: 52)

The first three factors in work make employee to feel that he has an important and meaningfulness job, autonomy and freedom in work make employee know himself responsible for the outcomes and feedback makes people be aware of actual results of their performance and activities (Saadat: 2005, 52)

**METHODOLOGY OF THE RESEARCH**

This research has descriptive method and nature of survey kind. Because present research engages in arranged description of the relationship between job characteristics and learning organization and examines and analyzes opinions of Masjedsoleyman oil and gas production company's staff in relation with these two variables in their organization and the reason for being a survey one is that for collecting data, a questionnaire has been used.

1. **Statistical universe**

In this research, statistical universe is all employees in Masjedsoleyman oil and gas Production Company in 2013. The number of employees are more than 597 that 15 of them are women and the rest of them are men.

2. **Sample mass**

Sample mass, in this research, is estimated to 147 ones based on Cochran formula as below:

3. **Tool for collecting data**

In this research, the tool for collecting data is a questionnaire that divides in 3 parts. The first part is general questions related to general and demographic information about responders and consists of 4 questions included dimensions of education level, work experience, sexuality and the kind of job.

The second part is specialized questions related to learning organization and is using learning organization system model presented by Michael J. Marquardt on the grounds of learning organization profile. This questionnaire examines learning organization characteristics based on learning mobility, organizational change, people empowerment, knowledge management and technology utilization and consists of 49 questions (Marquardt, 2006, 320)

The third part is specialized questions related to job characteristics and examines them based on Hackman and Oldham model. These characteristics are skill variety, task identity, task significance, autonomy and feedback that included 23 questions (Oldham and Hackman, 1980)
In order to design this questionnaire five-fold Likert spectrum has been used and included choices like strongly agree, agree, relatively and agree, disagree and strongly disagree. And that the score of 5 goes for strongly agree, 4 goes for agree, 3 goes for relatively agree, 2 goes for disagree and 1 goes for strongly disagree. Scoring questions that have negative viewpoint is opposite to positive viewpoint questions. The choice of strongly agree get score of 1, agree get 2, relatively agree get 3, disagree 4 and strongly disagree get the score of 5.

4. Validity and reliability of the questionnaire

The reliability of learning questionnaire has been obtained by Michael J. Marquardt in abroad in 2002 ($\alpha=0.971$). Hackman and Oldham have obtained the reliability of job characteristics questionnaire equivalent to 0.89.

In this research, in order to measure reliability, Cronbach's Alpha coefficient has been used. Based on that and in order to measure reliability with use of cronbach's Alpha method, the obtained number for this coefficient is equal to 0.962 and according to the fact the obtained number is above 70 percent, so the reliability of measurement tool is suitable.

**TABLE 1- ALPHA COEFFICIENT**

<table>
<thead>
<tr>
<th>Questions number</th>
<th>Alpha coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>49</td>
<td>0.962</td>
</tr>
</tbody>
</table>

**ANALYZING OF RESEARCH FINDING**

- Rate of change, mean and standard deviation of each variable's dimension
According to table 2, the average of questions related to learning organization are the dimension of learning mobility 2.684, dimension of organizational change 2.7703, dimension of people empowerment 2.8563, dimension of knowledge management 2.6781, technology utilization 2.6023. According to the fact that in people empowerment dimension, employees got the highest mean, attention to holding in-service classes and allowing employees for continuing education and employing of elitist graduates can be considered. In addition, the lowest average is for technology utilization that its clear example is employees' difficult computer access through internet and using technology equipments. Furthermore, the average of different dimensions of job characteristics are skill variety 2.6901, task identity 2.8457, task significance 2.9824, autonomy 2.7676, feedback 2.6797, results from the average of job characteristics dimensions show that the highest mean is for task significance and that we can say tasks are significant for employees and they need various skill for job completion but in dimension of feedback it has the lowest mean and we can guess feedback and evaluation monitoring system in oil company, doesn't evaluate competences and control employees actively and regularly.
- Determine the relationship between learning organization and job characteristics model

**TABLE3: RELATION BETWEEN LEARNING ORGANIZATION AND JOB CHARACTERISTIC MODEL**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Index correlation coefficient</th>
<th>confidence level</th>
<th>number</th>
</tr>
</thead>
<tbody>
<tr>
<td>learning organization and job characteristics</td>
<td>0.432</td>
<td>0.000</td>
<td>128</td>
</tr>
</tbody>
</table>

According to table 3, Pearson correlation coefficient for these two variables is 0.432 and observed significant level is 0.000. So at 99 percent confidence level this hypothesis is confirmed. It means there is significant and positive relationship between these two variables. Thus, job characteristics model can be considered as a variable in leading this organization to a learning organization.

- Hypothesis examination at level of job characteristics model's dimensions

**TABLE4: RELATION BETWEEN LEARNING ORGANIZATION AND JOB CHARACTERISTIC MODEL' DIMENSIONS**

<table>
<thead>
<tr>
<th></th>
<th>Task variety</th>
<th>Task identity</th>
<th>Task significance</th>
<th>autonomy</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning organization</td>
<td>0.342</td>
<td>0.213</td>
<td>0.249</td>
<td>0.225</td>
<td>0.378</td>
</tr>
<tr>
<td>sig.2(tail)</td>
<td>0.000</td>
<td>0.016</td>
<td>0.000</td>
<td>0.005</td>
<td>0.000</td>
</tr>
</tbody>
</table>

| confidence level              | **           | **            | **                | **       | **       |

First sub-hypothesis

According to table 4, Pearson correlation coefficient for these two variables is 0.249 and observed significant level is 0.000. So at 99 percent confidence level this hypothesis is confirmed. Task variety is the use of different and various knowledge and skills in completion of a job. So people, when enjoy high motivation at work, will have especially of different technologies utilization in order for achieving to a learning organization by constant learning.
Second sub-hypothesis

According to table 4, Pearson correlation coefficient for these two variables is 0.213 and observed significant level is 0.016. So at 95 percent confidence level this hypothesis is confirmed. Task identity can lead organization to being a learning one via advantages acquired from completion of a whole piece of work by employees.

Third sub-hypothesis

According to table 4, Pearson correlation coefficient for these two variables is 0.249 and observed significant level is 0.000. So at 99 percent confidence level this hypothesis is confirmed. It means by works design and supposing the job important in viewpoint of employees and others outside the organization, makes the work inside motivation increase. As a result, by reinforcement of this dimensions can lead organization towards being learning organization.

Forth sub-hypothesis

According to table 4, Pearson correlation coefficient for these two variables is 0.225 and observed significant level is 0.005. So at 99 percent confidence level this hypothesis is confirmed. According to autonomy dimension that causes mental psychological result of the responsibility of the work obtained results. So, the need for learning occur in the organization. They understand the relationship between their responsibilities and organization’s objectives as a general. And strive to have a learning organization.

Fifth sub-hypothesis

According to table 4, Pearson correlation coefficient for these two variables is 0.378 and observed significant level is 0.000. So at 99 percent confidence level this hypothesis is confirmed. People awareness of their actual activities results can be effective on improvement of their skill and on account of that, organization is impelled to being learning.

- Determination of the share of job characteristics dimensions in building learning organization.

In this stage, to determine the share of each job characteristics dimensions, stepwise multiple regressions have been used. The method is in return kind that in forth step has led to following optimum model. Among the variables that entered the equation, two of them are remained. The main equation is:

\[ Y = 0.949 + 0.182X_1 + 0.476X_2 \]
Based on table 5, skill dimension's share is 0.182 and feedback's share is 0.476. According to that, in return for per unit $x_1$, 18.7 percent and in return for per unit $x_2$, 40.7 percent will add to $y$.

- Personal characteristics of under consideration samples in terms of lack of difference with learning organization variable and job characteristics.

Sexuality: in order to compare the relationship between sexuality and learning organization with job characteristics, T-test was used. The results showed that there is not significant difference in men or women conception and sexuality doesn't have a role in building job characteristics and learning organization. So, this hypothesis is not confirmed.

Education level: according to one-way variance analysis test, it was observed that at 1% Sis. Level, people with different education had different mean for learning organization. Duncan test has been used for comparing the average of education dimension relative to learning organization variables.

<table>
<thead>
<tr>
<th>Education level</th>
<th>Job characteristics</th>
<th>Learning organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>High school graduated</td>
<td>2.5931 A</td>
<td>2.5598 B</td>
</tr>
<tr>
<td></td>
<td>2.7391 A</td>
<td>2.4891 B</td>
</tr>
<tr>
<td>bachelors education</td>
<td>2.828 A</td>
<td>2.7455 B</td>
</tr>
<tr>
<td>master</td>
<td>2.8056 A</td>
<td>3.1322 A</td>
</tr>
</tbody>
</table>
Based on Duncan test, people with master degree have had more positive view relative to other groups. Whereas there was not any significant difference between education groups of job characteristics variable.

Work experience: in sample mass, 19.5 percent had less than 5 years work experience, 20.3 percent had 5 to 10 years work experience, 14.1 percent had 10 to 15 years work experience, 17.2 percent had 20 to 25 years work experience and 11.7 percent had 25 to 30 years work experience. Results showed that the view of people with various work experience does not effect on job characteristics and learning organization. So, this hypothesis is refused.

Kind of job: 53.9 percent of people in sample mass, have been in technical/operational unit, 15.6 percent were in service unit, 20.3 percent have been in financial/administrative unit and 10.2 percent were staff forces. Results showed that there is significant difference at 95% confidence between kind of the job and learning organization and job characteristics. So, this hypothesis is confirmed. Now, we can calculate the level of relationship between each of job subgroups with these two variables by use of Duncan test.

TABLE7: COMPARING OF JOB KINDS MEAN USING DUNKAN TEST

<table>
<thead>
<tr>
<th>Kind of job</th>
<th>Job characteristics</th>
<th>Learning organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical-operational</td>
<td>2.6799 B</td>
<td>2.5738 B</td>
</tr>
<tr>
<td>General service</td>
<td>2.863 AB</td>
<td>2.8837 AB</td>
</tr>
<tr>
<td>Financial/administrative</td>
<td>2.8796 AB</td>
<td>2.8713 AB</td>
</tr>
<tr>
<td>Staff</td>
<td>2.9765 A</td>
<td>2.9263 A</td>
</tr>
</tbody>
</table>

According to Duncan test, the highest average is for staff forces in the manner that they have the highest score in both cases. And that the lowest average is for people in technical-operational department.

SUGGESTIONS:

In this section, in order to complete findings and amplifying the research enrichment, some recommendations are suggested:

1- Expansion and extension of job in vertical level of organizations.
2- Creating work teams self-managed
3- Quality circles
4- Making results feedback channels
5- Modern systems based on bonus
6- Employees' skill can be increased by their movement in different jobs
7- By the use of works combination method, organization's managers can figure on combining general and detailed jobs or technically, enlarge the jobs and make new set of them. This causes employees' skill variety to enhance
8- Forming natural work unit
9- Improvement of employees' quality of work life

- suggestions to other researchers for future research

1- In present research, job characteristics are considered as independent variable and learning organization was considered as dependant variable. In future research, learning organization can be considered as independent variable and job characteristics as dependant one.
2- In this research, the questionnaire and model of Hackman and Oldham has been used for measuring job characteristics. In future research, other models such as Turner and Lawrence model or social information processing theory or work teams self-managed can be used.
3- Quality circles, representation in board of directors, shared committee of management and employees are methods of works redesign that can be considered in future research by other researchers.

REFERENCES:


