

Relation Between Job Characteristics Model (JCM) and Learning Organization (LO)

¹R. Zare, ¹M. Jajarmizadeh and ²N. Abbasi

¹Department of Public Management, Payame Noor University, Shiraz, Iran

²Department of Statistics, Payame Noor University, Shiraz, Iran

Abstract: This article examines the relationship between Job characteristics model and learning organization, according to model of Hackman and Oldham (1975) and Marquardt systematic model (2002), respectively. Statistical universe of the research is Fars province Jihad agricultural organization personnel of I.R.IRAN and for collecting data and information questionnaire are used. This study used two standard questionnaires. Research findings show a statistical significant between job characteristics model and learning organization and say that, motivating the staff, leads organization to being learning. A major contribution of this research is the identification of an existing and suitable theoretical background that can be applied to study of JCM and learning organization, thereby providing a frame-of-reference for the analysis of JCM for creating learning organization.

Key words: Job characteristics model % Job skill variety % Job identity % Job significance % Job autonomy % Job Feedback % Learning organization

INTRODUCTION

Your ability of rapid learning causes you to remain in competition. Those organizations which know how to increase the organizational commitment of people and their learning abilities will be more successful in future [1].

Today, our society is rapidly changing. To succeed on rapid changes in markets, organizations should rapidly take lessons from most small things in their surrounding. In past times, scientists suggested that learning was the main framework of organizations, competition and benefit and organizations will lead their load toward effective learning [2].

Learning is a degree of conception related to the way of sharing organization's perspective in the whole parts of it. In this regard, we should challenge all beliefs and ideas of business companies to invent. Learning organization is propounded as the base which causes the stability of firms in competition [3].

In modern competition businesses environments, learning organizations maintain is an important priority. Their abilities to manage learning capability at all personnel and organizational levels, has made them capable to modern products and services, new marketing strategies and leading methods in learning inversion rapidly.

On the other hand, the organizational benefits and presenting better services to clients and related to the quality of staffs work life. Organizations should look for the perfect development of staff's potential abilities to respect their social religious and needs.

There are several purposes to design jobs that the most important of which are: 1) the effectiveness and finding new methods to introduce products or present services, 2) using human and material sources more productivity, 3) being better than competitors, 4) appointing the identities of employees, 5) increasing the motivation of employees and doing the social organizational responsibilities for staff by improving job conditions [4].

Generally, the unsuitable designing of jobs will result in tiredness, decrease of efficiency, increase of staff turnover, decreasing staff's motivation, decrease of productivity and increase organizational costs.

In this survey, has been tried to make a learning organization by applying job characteristics and creating motivating jobs.

Learning organization definition: Some of definitions which have been stated until now, are shortly expressed as follows:

An organization which obtains results according to its history and experiments and uses them as its main behaviors is called a learning and knowledge creating organization [5].

Learning organization learns and changes during times and changes its functions. When an organization could change and improve its behavioral extent by relation process, we can call it a learning organization [6].

Learning organization is one that creates structures and guidelines to help organizational learning to promote [7].

According to Garvin, learning organization is one which is to initiate, acquire and transfer knowledge and one which balances its behavior in the manner that reflects modern knowledge and view points [8].

In his valuable book, "Building The Learning Organization", Marquardt has relatively expressed a comprehensive definition: According to this, Learning organization is one which learn powerfully and collectively and changes it self toward collecting, managing and using information to cause organizational collection to succeed [9].

The Difference between learning organization and organizational learning: According to Marquardt, there is difference between "organizational learning" and "learning organization". He says: "organizational learning is a process; it means that learning is always continuing and it will not come to an end. But, learning organization is a product [9].

Organizational learning is a special activity in organization and learning organization is a special organization [10].

Learning in organizations must be increasing in all parts of them, than they able to convert learning organization [11].

The Used Learning Organization Model In This Survey: The learning organization model in this survey is Marquardt systematic learning organizational model [12]. According to Marquardt's experiences about hundreds of learning organizations, Learning how to learn, that is the main problem of modern organizations, is neither possible nor it can be stable without knowing and developing the fivefold subsystems which has been presented in Figure (1). These sub-systems consist of Learning, organization, people, knowledge and technology. All of these sub-systems are needed to continues and permanent organizational Learning and also to be assured of organizational success.

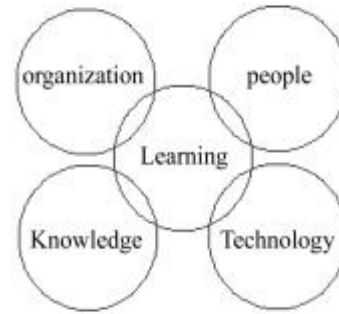


Fig. 1: Systematic Learning Organization Model [12]

Organization, people, knowledge and technology sub-systems are needed to progress and to increase learning and each of them affect on other fourfold sub-systems. These sub-systems are needed to create and keep organizational learning and enjoyment. Fivefold sub-systems are statistically correlated to each other and complement each other. If one of these systems is weak or is not present, other sub-systems will seriously be weakened. Each of these sub-systems includes following sub-groups:

- C Learning is the main sub-system of learning organization. Learning occurs at all personnel groups and organizational level and includes: Levels of learning, Learning skills, kinds of learning.
- C Organization sub-systems is the framework that in which learning happens in it and includes: vision, structure, strategy, culture.
- C People sub-system: society, suppliers and sellers, share holders and mediators of business, clients, staff, managers and chiefs.
- C Knowledge sub-system refers to the management of acquiring and creating knowledge at organization and includes: production, trade, using and currency, translocation and distribution, analysis and searching data, saving.
- C Technology sub-system refers to support and integrate technological networks and informational tools which prepare the possibility of acquiring and exchange information and learning. It includes learning development and knowledge management [12].

Characteristics Of Systematic Model Of Learning Organization: According to Marquardt researches, systematic learning organizational model have these characteristics [12]:

- C Forecasting and rapid adapting to the environment.
- C Accelerating the development of products, processes and modern service.
- C Being more professional by competitors and participators.
- C Accelerating the translocation of knowledge from one part to other part.
- C Learning more effectively from errors.
- C Employing staff at all levels of organization more suitably.
- C Decreasing needed time to perform strategic changes.
- C Encouraging improving in all areas of organization continues.
- C Employing the best staff.
- C Increasing the organizational commitment and creativity of staff.

Job Characteristics Model (JCM): Numerous researchers have tried to find away to increase staff's operation and Job satisfaction by their Job enrichment. Job enrichment seeks to improve staff's function and to increase simultaneously their satisfaction by creating greater aims and knowing the opportunities of personal development for staff. We can see the application of Job enrichment in further designing of Job structure in organizations to cause task to become more motivating and challenging for staff. Today, the emphasis is often on enrichment of jobs to increase the ability of staff and to supply their expectations and dreams to make themselves more responsible for their works. To match Job characteristics to personal needs, Job enrichment is usefully used to describe internal relation between job characteristics and personal characteristics and its relation to ideal organizational results. The theory of Hackman and Oldham [13] is the main one which is used for most of enrichment methods [14].

Hackman and Oldham [13] Job characteristics model (JCM) is based on staff's perceptions about specific aspects of their tasks.

As the main points of Jobs, these variables are according to Figure (2) and they consisted of: task skill variety, task identity, task significance, task autonomy and Job feed back. A task is known as a stimulating one, when it involves enough expressed aspects. These aspects cause some conditions meaning to consider task and responsibility and to know task results. Although some scientists believe that this expressed relationship depends on growth needed strength (GNS) relatively to job internal motivation, these states cause job internal motivation to create.

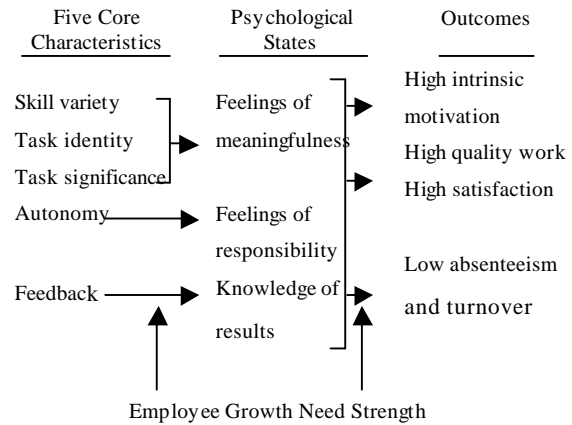


Fig. 2: Hackman and Oldham Job characteristic model [14]

Hackman and Oldham Motivating theory is related to the internal motivation of task by which motivation circle will be confirmed among staff. Hackman and Oldham expressed that jobs had motivating potential (MPS) and expressed equal(1) to measure it [15].

$$\text{Motivating potential score (MPS)} = \frac{\text{Task significance} + \text{Task identity} + \text{skill variety}}{3} \times \text{Autonomy} \times \text{Feed back}$$

Research Hypotheses

Main Hypotheses: Job characteristics model is related to learning organization.

Minor Hypotheses:

- C Job skill variety is related to learning organization.
- C Job identity is related to learning organization.
- C Job significance is related to learning organization.
- C Job autonomy is related to learning organization.
- C Job Feed back is related to learning organization.

Research Questions:

- C Is there a meaningful correlation between each one of five core characteristics of JCM and each one of five dimensions of learning organization?
- C How much is each job characteristics model components shares in creates the learning organization?

Research Material And Methods: According to main and minor hypotheses of this research and answering to main question, meaningful model for this survey is collected in the form of Figure (3).

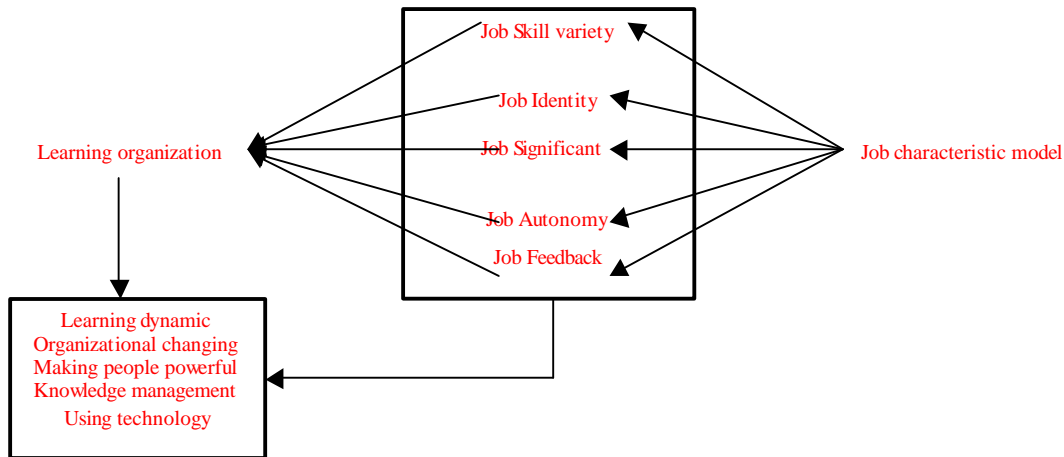


Fig. 3: Research meaningful model

Research Method: In this survey, Job characteristics are considered as significant variables and learning organization as a dependent. In this study, has been used descriptive and inferential statistical ways to analyze data. Statistical social in this research are 2820 personnel of Agricultural organization of Fars province; Using Cochran Formula, statistical sample is 183 people.

In this research, has been used Job diagnostic survey questionnaire of Hackman and Oldham [13] and Learning organization profile (LOP) questionnaire of Marquardt [12]. The Job diagnostic questionnaire contains 23 questions and measures Job skill variety, Job identity, Job significant, job autonomy and job Feed back and is based on five-choice specter of Likert. The learning organization profile (LOP) questionnaire is also based on Linker's Five-choice specter and examines these components Learning dynamics, organizational change, making people skilful, managing knowledge and loading technology in the systematic model of learning organization. The questions validity is accepted by related professors and the tool reliability was 0.944 by Cronbach's Alfa. The used statistical methods in this survey include: Pearson rank correlation, Duncan test, ANOVA, T test, Two tailed test, One tailed test, Path analyzing.

RESULTS AND DISCUSSION

Based on Cochran Formula, sample volume in this research has been estimated 183 people [16].

$$n = \frac{N \times Z_{\alpha/2}^2 \times P(1-P)}{e^2(N-1) + Z_{\alpha/2}^2 \times P(1-P)}$$

- P: Estimated as adjective ratio of variable (P=0.5).
- Z: The quantity of normal variable of unit, proportionate to safety level of 95 percent ($Z_{\alpha} = 1.96$)
- g: The wrong permissible quantity ($g = 0.07$)
- N: The volume of statistical social (2820)

P equal to 0.5 becomes where $p=0.5$, n quantity is maximum and it causes sample to be great enough.

We distributed 200 questionnaires among the staff of Agricultural organization of Fars province, from which we collected 189 and prepared 183 questionnaires to analyze them after regulation.

Main Hypothesis of the relation between Job characteristics model and learning organization:

According to the output of SPSS software (Table 1), Pearson correlation is 0.538 for two Job characteristics and learning organization variables and there was a meaningful level of 0.000 it means that there is a meaningful correlation between two variables.

Correlation Coefficient Between Each One Of JCM Components And LO:

Using this correlation, shows the correlation coefficient degree of each of five components of Job characteristics model and learning organization and can determine the minimum and maximum degree of correlation.

Table 1: Correlation coefficient between JCM and LO

	JCM	LO
Pearson correlation		0.538 **
N		183
Sig		0.000

**p<%1

Table 2: Correlation coefficient between Job characteristics components and learning organization

	Skill variety	Identity	Significant	Autonomy	Feedback	
Learning Organization	0.356	0.194	0.273	0.43	0.625	Pearson Correlation
	0.000	0.009	0.000	0.000	0.000	Sig

Table 3: Determining the correlation between Job characteristic aspects with learning organization aspects

	Learning dynamics	Organizational changing	Making people powerful	Knowledge management	Using technology	
Skill variety	0.284	0.314	0.345	0.248	0.335	Pearson correlation
	0.000	0.000	0.000	0.001	0.000	sig
Identity	0.163	0.164	0.196	0.137	0.171	Pearson correlation
	0.027	0.024	0.008	0.064	0.021	sig
Significant	0.219	0.255	0.217	0.195	0.285	Pearson correlation
	0.003	0.000	0.003	0.008	0.000	sig
Autonomy	0.322	0.41	0.396	0.328	0.390	Pearson correlation
	0.000	0.000	0.000	0.000	0.000	Sig
Feedback	0.507	0.573	0.530	0.537	0.545	Pearson correlation
	0.000	0.000	0.000	0.000	0.000	sig

Job skill variety is related to learning organization: considering obtained results Pearson's correlation coefficient (Table 2) was 0.356 and at the meaningful level of 0.000 which also confirms this hypothesis.

Job identity is related to learning organization: considering obtained results Pearson's correlation coefficient (Table 2) was 0.194 and at the meaningful level of 0.000 which also confirms this hypothesis.

Job significant is related to learning organization: considering obtained results Pearson's correlation coefficient (Table 2) was 0.273 and at the meaningful level of 0.000 which also confirms this hypothesis.

Job autonomy is related to learning organization: considering obtained results Pearson's correlation coefficient (Table 2) was 0.43 and at the meaningful level of 0.000 which also confirms this hypothesis.

Job feedback is related to learning organization: considering obtained results Pearson's correlation coefficient (Table 2) was 0.625 and at the meaningful level of 0.000 which also confirms this hypothesis.

Research Question 1) Is There A Meaningful Correlation Between Each One Of Five Core Characteristics Of JCM And Each One Of Five Dimensions Of Learning Organization: The degree of correlation Job characteristics model and each one of learning organization components has been shown in Table 3, Using Pearson correlation coefficient.

According to the results of Table 3, there is a meaningful correlation between dimensions of Job characteristics model (skill variety, identity, significant, autonomy and Feedback) and five components of systematic learning organization model (learning dynamics, organizational change, making people powerful, knowledge management and using technology) at the meaningful level of 0.01.

Research Question 2) How Much Is Each Job Characteristics Model Components Shares In Creates The Learning Organization: To answer this question, has been used Stepwise regression method to determine the share of Job characteristics aspects which has reached to bellow utilized model in forth stage. The main equation related to this hypothesis is:

$$W = 1.007 + 0.138t_4 + 0.596t_5. \text{ (Equal 2)}$$

According to this model, 15.5 percent is added to w instead of t_4 and 54.7 percent is added to w instead of:

- t_5 : Is the autonomy aspect of Job characteristics model variable.
- t_5 : Is the job feedback aspect of Job characteristics model variable.
- W : Is the variable of learning organization

Path Analyzing: In this study, has been used Path analyzing to show the correlation between dimensions of Job characteristics model to each other and their

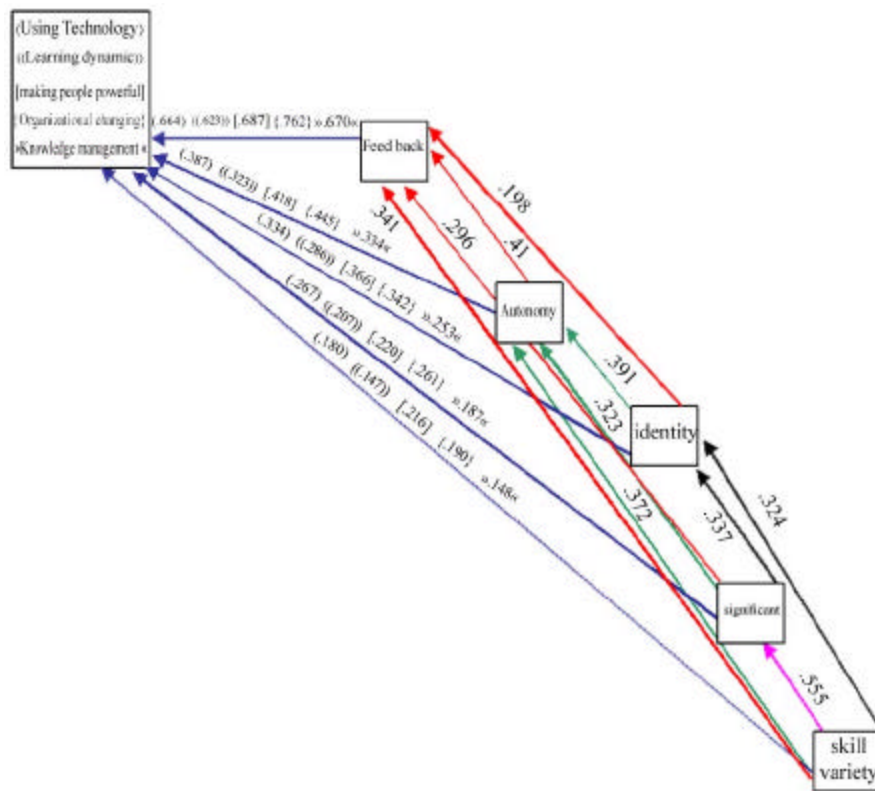


Fig. 4: Path analyzing, correlation between job characteristics model and systematic model aspect of learning organization

correlations to the dimensions of systematic learning organization model. It is done using multiplex regression correlation and in the shape of stage by stage.

Figure (4) shows the affect of each dimension of Job characteristics model and their order in creating dimensions of learning organization. Results of path analyzing indicate that, job feedback and job autonomy dimensions of JCM have more effects on creation of learning organization's dimensions. Job skill variety, job significant and job identity have fewer effects on the creation of learning organization's dimensions.

Analyzing the results of research: According to main hypothesis, there is a meaningful correlation between Job characteristics model and learning organization characteristics. As a result, this organization leads toward being learning by redesigning Jobs in organization and by creating motivating Jobs for staff. According to Equal 2 and the result of path analyzing, job autonomy and job feedback are the main elements of JCM which have the main effects on the creation of learning organization in Jihad Agriculture organization of Fars province. So should be maintaining the power of these components.

Job skill variety, job significant and job identity should be increasing their power to create learning organization in Jihad Agriculture organization of Fars province and guide it to be learning.

The methods by which will be improved the job autonomy and job feedback in Jihad Agriculture organization of Fars province are:

Job Enrichment: By which the distance between job and control decreases, the degree of autonomy of staff increases, feedback of the result activities and finally employees could evaluate their works, correct their errors and procedure will improve.

Creating Autonomous Work Groups: Since the Jihad Agriculture organization includes several sub-sets, can free members of these groups to select job and job rotation by creating the autonomous work groups in each department and leading these groups by formal or informal leaders.

Quality Circles: These circles can identify and analyze errors in this organization.

Creating Job Feedback Channels: If the staff be informed of the results of their works, they will be more informed of their errors and weak points to solve their problems.

Methods by which will improve job skill variety, job significant and job identity in this organization are:

Job Enlargement: by this way, general and partial jobs will be mixed and create a new motivating set of jobs.

- C Using job rotation could increase the skill variety of employees.
- C Having relationship with client causes the staff to know the real results of the work and also it causes increasing staff's skill variety to have different activities and it causes increasing staff's autonomy.

Creating The Natural Units Of Work: designing the work so that somebody's works are obvious, causes the works have the identity and the staffs believe that the work is their own one and so, they don't believe that the work is boring.

REFERENCES

1. DeGeus, A., 1977. *The Living Company*, Boston: Longview Publishing Limited.
2. Bridthistle, Naomi and Fleming Patricia, 2005. Creating learning organization within the Family business: an Irish perspective, *J. European Industrial Training*, 29(9): 730-750.
3. Davis, Deborah, 2005. *The Learning Organization and it Dimensions as Key Factors in Firm Performance*. (Doctoral Dissertation, university of Wisconsin - Milwaukee), From <http://www.Proquest.UMI.com>
4. Schuler, Randall S., 1998. *International Human Resource Management: Managing People in a Multinational Context* (3th edition), Cincinnati, Ohio: South-Western.
5. Levitt, B. and J.G. March, 1988. Organizational Learning, *Annual Review of Sociology*, 14: 314-340.
6. Huber, G.P., 1991. Organizational Learning: The Contributing Processes and The Literature, *Organization Sci.*, 2(1): 88-115.
7. Dodgson, M., 1993. Organizational Learning: A Review of Some Literature, *Organization Studies*, 14(3): 375-394.
8. Garvin, D., 1993. Building a learning organization, *Harvard Business Review*, 71(4): 78-91.
9. Marquardt, M.J., 1996. *Building The Learning Organization*. New York: Mc Graw-Hill.
10. Tsang, E.W.K., 1997. Organizational learning and the learning organization: A Dichotomy Between Descriptive and Perspective Research. *Human Relations*, 51(1): 73-89.
11. Lu, X.A., 2004. Surveying the concept of the learning organization. *J. Organizational Learning And Leadership*, from <http://www.leadingtoday.org>.
12. Marquardt, M.J., 2002. *Building The Learning Organization* (2th edition), Palo Alto, CA: Davies-Black Publishing, INC.
13. Hackman, Richard J. and R. Oldham, 1980. *Work Redesign*, Addison-Wesley Publishing Company. Inc., pp: 80-306.
14. Loher, Brian Noe, T., A. Raymond, Moeller, L. Nancy, Fitzgerald and P. Michael, 1985. A Meta-Analysis of the Relation of Job Characteristics to Job Satisfaction. *J. Applied Psychol.*, 70(2): 280-289.
15. Missing
16. Cochran, W.G., 1977. *Sampling Techniques* (3th edition). New York: John Wiley and sons.
00. Lee, Darren Ross, 2005. Perceived job Characteristics and internal work motivation, an exploratory cross- cultural analysis of the motivational antecedents of hotel workers in Mauritius an Australia, *The J. Management Development*, 24(3): 253-266.
00. Robbins, Stephen P., 1996. *Essentials of Organizational Behavior* (5th edition), Prentice Hall International, INC.