

Investigating Factors Affecting Labor Productivity: A Case Study in Eghtesad-e-Novin Bank, Iran

Mohammad Javad Aghajeri ^{1*}, Valiollah Aghajeri ²

¹Department of Industrial Engineering, Amirkabir University of Technology, Tehran, Iran

²Department of Accounting, Sama branch, Islamic Azad University, Ahvaz, Iran

*E-mail: agh.javad@yahoo.com

Abstract

One of the most important goals in each organization is improving the level of productivity, and given that manpower plays a central role in creation of productivity, requests in the organization are of great importance. This study aims to investigate the affecting factors on labor productivity in Eghtesad-e-Novin Bank. To this end, one main hypothesis and five secondary hypotheses are designed. A questionnaire was used in order to collect the data for each of the dependent and independent variables. In this investigation, independent variables consist of organizational culture, organizational structure, human resource empowerment, and employee motivation, and the dependent variable is labor productivity. The statistical population consists of all employees (80 individuals) of Eghtesad-e-Novin Bank in the seven provinces region in Khuzestan, Lurestan. After evaluation of validity and reliability, questionnaires were distributed among employees and were analyzed using the SPSS software. The results of analysis indicate that there is a positive and significant relationship between factors of the independent variables and the dependent variable and that these factors have an influential relationship with labor productivity in the Eghtesad-e-Novin Bank.

Keywords: Labor Productivity; Organizational Culture; Organizational Structure; Staff Empowerment; Motivation

Introduction

Management responsibilities and the main purpose of managers in any organization is effective and efficient use of different resources and assets such as workforce, capital, materials, energy, and information. To this end, efficient use of human resources (labor productivity) is of great importance because humans, unlike other organizational resources, are capable of reasoning and free will, and the manager cannot simply use these capabilities. More importantly, human resources are not only an organizational resource, but also the only driving force for other factors. This becomes even more important in the service organizations, since humans are the only asset and driving force for the related service in those organizations. However, if the person is motivated, capable, and productive, he/she can efficiently and optimally utilize other resources and fulfill a variety of productivity roles, and finally, this process might lead to organization's productivity. Otherwise, passive and unmotivated manpower lead to recession and underdevelopment (Hariri, 2009). The most important factor in improving the efficiency of any organization and any country is human resource. This factor has turned into an important and fundamental component in explaining the differences in productivity and growth in different countries. Organizations that have had great success and countries that are among the most advanced and developed nations, have paid great attention to this issue (Mouhamad Karim Bahadori, 2013). An increase in labor productivity leads to competitiveness in world markets. When the competitiveness increases, it leads to an increase in production and more revenue and finally national prosperity (Ghorbani Kia, 2012).

One of the major problems in all sectors and levels of society, especially human resources, is lack of efficiency and productivity. In other words, the culture and attitude toward productivity is still not pervasive in society and fundamental and effective efforts are needed in this area. Regarding the importance of labor productivity, especially the productivity of managers, experiences of successful firms indicate that productivity belongs to firms that have accepted human capitals as their most important capital, and consequently have invested on training and education and also have considered incentives for their employees (Mahdavinejad, 2012).

Concepts and Approaches of Productivity

The simplest definition of productivity is the ratio between output and input, or in other words, the mathematical ratio of production to the amount of resources consumed in the production. Resources can be land, materials, factories, machinery, tools, and workforce (William & Stevenson, 2007). Productivity is essentially an economic concept which later on has entered into management. In economy, productivity is defined as the ratio of a certain amount of product and a certain amount of one or more production factors, the amount that each worker produces in a given period of time (Abdalhousain Nikgozar, 1990). Jan Kenrek (1977) defines productivity as the relationship between goods and services or human and non-human resources that have been used in the production process.

Review of related literature

Bahaduri et al. (2013) investigated the role of elements of organizational culture, intellectual growth, organizational support, motivation, training, performance evaluation, clarity of the occupation, ability, and environment, regarding labor productivity. The obtained results showed that there is a relationship between factors of organizational culture and labor productivity.

Ansari Rnani et al. (2009) considered quality of work life, empowerment of employees, and incentive system, as organizational factors affecting the improvement of labor productivity. Sadeghiani et al. (2009) stated that organizational elements, organizational culture, staff training, service compensation system, organizational structure, employee involvement, selection of personnel, and leadership style have a direct impact on the degree of leadership success. Khademi et al. (2010), and Mouhamad Khaghani (2003) have considered the creation, maintains, and increase in the degree of motivation, as the most important approaches used in labor productivity. Broumad et al. (2010), in their scientific investigations, have stated that organizational structure is an important factor in the productivity of labor. Ghahremanikia (2012), in his study, pointed out factors such as training, motivation, participation, and implementation of proper management, and proved that they have a direct relationship with improvement in productivity. Asgarsani et al. (2013) mentioned the empowerment of employees as an important issue in human resource management in organizations, and they also considered finding the individual abilities of employers as an important and strategic element and have tried to improve human resource empowerment factors.

Rayt et al. (2008) concluded that culture plays an effective role in the increase of employee motivations and productivity. Also, Bartelmitselberg (1987) has mentioned that educated people can perform better in terms of productivity and that is why training accelerates the technology diffusion process. High level trainings reduce the degree of investment uncertainty in creativity through increasing the likelihood of successful technological adjustments and consequently increases the amount of these investments. Therefore, it can elevate the level of production and productivity. Zeynep Aycan et al. (1999) in their investigation have mentioned the organizational culture as an important factor in human resource management and also indicate a significant relationship regarding this topic. Kodyba (2003) mentioned guidance, employee involvement, and proper

training, as effective factors in labor productivity. Also, Rao (2006) considered motivation as an important factor. Joe be Barne (1986), in his study, investigated organizational culture and mentioned it as a competitive advantage in labor productivity. Stacey R. Kessler (2007), and Kelli J. Dammen (2001) have mentioned organizational structure as an important and effective factor in the increase in labor productivity performance. Also, CC Ukachukwu et al. (2013), and Olu Ojo (2010) have considered the effect of organizational culture on labor productivity as very important and essential.

Definition of concepts

Organizational Culture: Culture is important because any action without the knowledge of the cultural force (which is always present) might lead to unforeseen and unintended consequences (Monavarian, 2011). Organizational culture, is a collection of key values, guiding beliefs, and differences, which every member of an organization have (Askarian, 2009). Characteristics of organizational culture include individual creativity, accepting risks, leadership, integrity, supporting management, control, identity, reward system, and coping with conflicts and communication pattern (Kaviani, 2011).

Organizational Structure: Organizational structure is the framework of relations governing jobs, systems, operational processes, individuals, and groups, which try to achieve a common goal. Organizational structure is a collection of approaches that divide work into specific tasks and provide coordination between them (Monavarian et al., 2007). Mozafar (2007), in his investigation mentioned three important factors of complexity, focus, and formality, as organizational dimensions. Implementation of any process, need appropriate requirements and platform. One of the most important organizational dimensions, is organizational structure. It might even be considered after organization goals, as one of the most essential parts of the organization. Structure, is like the skeleton of the organization and basis for development of other sectors of the domestic and external sectors of the organization (Vaezi et al., 2010).

Staff Empowerment: Staff empowerment is the process of changing mental beliefs or self-efficacy which leads to increased motivation and productivity (Ansari Ranani, 2009). Also, staff empowerment causes positive effects on the attitudes and behavior of employees (Vaezi, 2010). Aspect of staff empowerment includes competency, independence, meaning, trust, and effectiveness (Hatami, 2011). The process of creating a formidable work environment, depends on the relationship between organizational practices, organizational environment and management style (Tatari, 2012).

Motivation: The term “motivation”, means movement and reason of the behavior. Human motivation, including conscious and unconscious, arise from his/her needs. Therefore, motivation or need is an internal state or deprivation which makes the individual perform a series of activities (Pazireh, 2012). Motivation is defined as simultaneous effects on the direction, intensity, and persistence in the work (Zahedi et al., 2009). Moghadasi (2012) mentioned the programs that create Motivation in the employees: 1) purposively management, 2) behavior modification, 3) staff involvement, 4) planes based on changing rights, 5) skill-based pay plans (competency), and 6) flexible benefit plans.

Main Research Hypothesis

There is a significant relationship between the predictability of organizational factors (organizational culture, organizational structure, empowerment, and motivation) and labor productivity of employees of Eghtesad-e-Novin Bank.

Secondary Research Hypothesis

1. Organizational culture affects the labor productivity of employees of Eghtesad-e-Novin Bank.
2. Organizational structure affects the labor productivity of employees of Eghtesad-e-Novin Bank.
3. Staff empowerment affects the labor productivity of employees of Eghtesad-e-Novin Bank.
4. Staff motivation affects the labor productivity of employees of Eghtesad-e-Novin Bank.

Methodology

Design of Study

This research is descriptive-correlational in terms of methodology. In this type of research, the relationships between variables are investigated without any manipulation.

Statistical Population

The statistical population of this study consist of all employees (80 individuals) of Eghtesad-e-Novin Bank in seven provinces (Khuzestan, Lurestan).

Statistical Sample and Sampling Method

The statistical sample were selected from all employees of Eghtesad-e-Novin Bank in the seven provinces region (Khuzestan, Lurestan), using stratified random sampling method. First, the list of employees were obtained and then the samples were selected proportional or the statistical population. Using Krejci - Morgan's table, 66 the sample size was calculated 66. Finally, 80 questionnaires were distributed, given the probability that some questionnaires might not be returned.

Tools for Data Collection

The data for this study were obtained using the Organizational Culture Questionnaire (Deneson), Organizational Structure Questionnaire (Robins), Staff Empowerment Questionnaire (Spriters), Occupational Motivation Questionnaire (Hakman & Oldham, 1976), and Labor Productivity Questionnaire (Zahra Hagegat Juo).

Organizational Culture: This questionnaire, which was designed based on the Organizational Culture Questionnaire by Deneson, and contains all aspects of organizational culture, such as empowerment, being team-oriented, development of capabilities, fundamental values, agreement, coherence and coordination, making changes, being customer- oriented, organizational learning, intentions and strategic direction, goals and objectives, and vision. Validity of this questionnaire was conformed based on the viewpoint of banking experts and university professors.

Organizational Structure: The questionnaire of three dimensions of organizational structure consisted of 9 items and was aimed to assess the state of formality, complexity, and focus in organizations and institutions. Number of questions related to each of the dimensions are specified. More points in each dimension indicate that the dimension is dominant in the organization.

Staff Empowerment: The Staff Empowerment Questionnaire by Spriters has been used in this study. This questionnaire contains 5 aspects. Also, using the perspectives of banking and academic experts, some modifications have been made in this questionnaire. Instead of the trust factor, the items of partnership with others have been added. Six questions have been designed the perspective of banking and academic experts. Therefore, this questionnaire consists of 15 items in five aspects; sense of a meaningful job, sense of competency in the job, sense of having a choice, sense of being effective, and sense of partnership with others. This questionnaire has been designed based on the

Likert's scale of five options (strongly agree = 5, agree = 4, no idea = 3, disagree = 2, and completely disagree = 1).

Staff Motivation: This 25 item questionnaire (Hakman & Oldham, 1976), has been used in many national and international researches. The range used in this questionnaire is of Likert type. This questionnaire is essentially designed based on five key elements that can be used to describe the potential motivation for a job. These elements are diversity of skills, task identity, and importance of the task, independence, and feedback.

Labor Productivity: it has been designed by Zahra Hagegat Juo. Using Cronbach's Alpha, its reliability has been calculated 0.89. Also, its validity has been confirmed by related experts.

The Reliability of Questionnaires

Cronbach's alpha coefficient has been used to determine reliability of questionnaires in this study which is expressed as follows:

Table 1. Cronbach's alpha

Variables	Cronbach's alpha coefficient
Organizational Culture	89.9%
Organizational Structure	92.1%
Staff Empowerment	94.4%
Staff Motivation	91.6%
Productivity	88.9%

Research Findings

Main Research Hypothesis

There is a significant relationship between the predictability of organizational factors (organizational culture, organizational structure, empowerment, and motivation) and labor productivity of employees of Eghtesad-e-Novin Bank.

First, using Pearson's correlation test, the relationship between aspects of organizational factors as the independent variable was assessed with dependent variable of labor productivity.

Table 2. The correlation coefficient between labor productivity and organizational factors

Variables	Organizational Structure	Occupational Motivation	Empowerment	Organizational Culture	Productivity
Organizational Structure	1				
Occupational Motivation	0.289	1			
Empowerment	0.285	0.196	1		
Organizational Culture	0.316	0.304	0.287	1	
Productivity	0.212	0.155	0.117	0.093	1

By obtaining the correlation matrix between the considered variables in table 2, we conclude that there is a significant linear relationship between organizational structure and labor productivity with a correlation coefficient of 0.212 and at the level of 0.01. Also, there is a significant linear relationship between occupational motivation and the variable of productivity with a correlation coefficient of 0.155 and at the level of 0.05. Given the positive correlation coefficients, we can

conclude that with the increase in each independent variable components of organizational structure and organizational motivation in employees, the corresponding score for labor productivity also increases, and vice versa. Due to the significance level obtained, there is a less significant linear relationship between variables of empowerment and organization culture with labor productivity. By comparing the values of the correlation coefficient, we can conclude that the variable of organizational structure has a higher correlation coefficient and this indicates that it induced a greater impact on productivity than other aspects.

In order to know which of the independent variables can considerably affect the productivity variable and predict it, the multi-variable regression analysis test should be utilized in a stepwise method. This test showed that, from among the independent variables and also the organizational elements, although all the factors are related, the organizational structure variable and job motivation possess more relation and prediction power compared to other factors. Also, the organizational structure with the regression coefficient of 0.199 and determination coefficient of 0.04 have the most impact on the productivity variable compared to other factors. Therefore, the organizational structure variable can predict up to nearly 4 percent of the changes related to variance of related variable. Hence, only the organizational structure variable has entered the equation as a forceful predictor, compared to other variables. The results obtained can be observed in table 3.

Table 3. Inter-organizational factors with productivity regression analysis test results

Step	Predictor Variable	Beta	T	P<	R ²	R ² Changes	F	df	P<
First	Organizational Structure	0.199	3.116	0.002	0.04	0.036	9.711	67	0.002

As it can be understood from the results mentioned in the table, the organizational structure factor has the highest prediction power for the productivity variable. In fact, with the existence of the organizational structure variable, other variables will have a diminished role in prediction.

(Organizational Structure)(0.199)=Productivity

H1: *Organizational culture has a considerable impact on the labor productivity of Eghtesad-e-Novin bank employees.*

In the proposed question, since the measurement levels of both independent and related variable (Organizational Culture and Employee Productivity Variable) is distance-related, Pearson's correlation coefficient was utilized. Based on this test, there is a considerable relationship between the two variables at the level of 0.05. The correlation coefficient between the organizational culture and employee productivity is 0.46, which with respect to the significance level of 0.000 in the level of 0.05 has become significant ($p < 0.05$). Also, the positivity of the correlation coefficient shows that the increase in the organizational culture has led to an increase in employee productivity, and vice versa. In other words, the changes of both these variables are coextensive. The results are reported in table 4.

Table 4. The results of Pearson correlation test on organizational culture and employee productivity

Statistical Test	Organizational culture and employee productivity	Significance Level	Number
Pearson's Correlation Coefficient	0.46	0.000	70

H2: Organizational culture has an impact on the labor productivity of Eghtesad-e-Novin Bank employees.

In the proposed question, since the measurement levels of both independent and related variable (Organizational Structure and Employee Productivity Variable) is distance-related, Pearson's correlation coefficient is utilized. Based on this test, there is a considerable relationship between the two variables at the level of 0.05. The correlation coefficient between the organizational structure and employee productivity is 0.64, which with respect to the significance level of 0.000 in the level of 0.05 has become significant ($p < 0.05$). Also, the positivity of the correlation coefficient shows that the increase in the organizational structure has led to an increase in employee productivity, and vice versa. In other words, the changes of both these variables are coextensive. The results are reported in table 5.

Table 5. The results of Pearson correlation test on organizational culture and employee productivity

Statistical Test	Organizational Structure and Employee Productivity	Significance Level	Number
Pearson's Correlation Coefficient	0.64	0.000	70

H3: Empowering the employees has an impact on the labor productivity of Eghtesad-e-Novin Bank employees.

In the proposed question, since the measurement levels of both independent and related variable (Empowerment Variable and Employee Productivity Variable) is distance-related, Pearson's correlation coefficient is utilized. Based on this test, there is a considerable relationship between the two variables at the level of 0.05. The correlation coefficient between the empowerment variable and employee productivity is 0.64, which with respect to the significance level of 0.000 in the level of 0.05 has become significant ($p < 0.05$). Also, the positivity of the correlation coefficient shows that an increase in the empowerment has led to an increase in employee productivity, and vice versa. In other words, the changes of both these variables are coextensive. The results are reported in table 6.

Table 6. The results of Pearson's correlation test on empowerment and employee productivity

Statistical Test	Employee Productivity	Significance Level	Number
Pearson's Correlation Coefficient	0.166	0.013	70

H4: Motivating the employees has an impact on the labor productivity of Eghtesad-e-Novin Bank employees.

In the proposed question, since the measurement levels of both independent and related variable (Employee Motivation and Employee Productivity Variable) is distance-related, Pearson's correlation coefficient is utilized. Based on this test, there is a considerable relationship between the two variables at the level of 0.05. The correlation coefficient between the employee motivation and employee productivity is 0.64, which in respect to the significance level of 0.000 in the level of 0.05 has become significant ($p < 0.05$). Also, the positivity of the correlation coefficient shows that an

increase in motivation has led to an increase in employee productivity, and vice versa. In other words, the changes of both these variables are coextensive. The results are reported in table 7.

Table 7: The results of Pearson's correlation test on employee motivation and employee productivity

Statistical Test	Employee Motivation and Employee Productivity	Significance Level	Number
Pearson's Correlation Coefficient	0.421	0.011	70

Conclusion

Considering the obtained results, it can be stated that the value of the amount of productivity is quite high. Among the variables, the organizational factors had the highest values related to the organizational structure, and the lowest average was obtained for organizational culture.

In explaining the hypothesis of predictability of organizational factors (organizational culture, organizational structure, empowerment, employee motivation) with respect to labor productivity among the employees of Eghtesad-e-Novin Bank, the results showed that although all organizational factors are related, the variables of organizational structure and job motivation have a more considerable relationship and prediction power compared to other factors. And, the organizational structure variable can predict up to 4 percent of the changes related to the variance of relative variable. Therefore, only the variable of organizational structure has entered the equation as a considerable predictor compared to other variables.

Regarding the hypothesis of organizational culture with respect to labor productivity, it is stated that it does affect the productivity of Eghtesad-e-Novin bank employees. Based on this test, there is a considerable relationship between the two variables, and also the positivity of the correlation coefficient shows that an increase in the organizational culture leads to a consequent increase in employee productivity.

With respect to the hypothesis of organizational culture with respect to labor productivity, it is stated that it does affect the productivity of Eghtesad-e-Novin bank employees. Based on this test, there is a considerable relationship between the two variables. Also, the positivity of the correlation coefficient shows that an increase in organizational structure leads to a subsequent increase in employee productivity. Furthermore, the results of this study showed that empowering the employees does indeed impact the labor productivity of Eghtesad-e-Novin bank employees, and that there is a considerable relationship between the two variable. The correlation coefficient is positive between the empowerment of the employees with respect to their productivity.

Finally, with respect to the hypothesis of employee motivation with labor productivity, it is stated that it does affect the productivity of Eghtesad-e-Novin bank employees. Based on this test, there is a significant relationship between the two variables. Furthermore, the positivity of correlation coefficient shows that an increase in employee motivation has led to an increase in employee productivity and vice versa.

Recommendations of the study

Regarding the results of the study, the following suggestions can be raised:

- Regarding a low correlation coefficient for the factor of organizational culture, it is suggested to do further research for the various factors of organizational culture and consequently improve the productivity of the organization and the employees.
- The structure has a direct impact on the employee productivity. For instance, in some branches, employees with high degrees and considerable work experience do not experience any improvement or job advances in their field of work.
- Employee empowerment can be further followed by judicial qualifications and meritocracy and the independence of employees. Meritocracy was not paid enough attention to in various fields, being an important factor in employee productivity.
- Job motivation is a considerable factor in employee productivity. Considering the fact that most bank employees spend all their time working at the bank, it would be a significantly fruitful solution to create activities and exercises for the employees in order to increase their productivity. Also, since the families of the employees are also considered as part of the organization, further planning for them would increase the overall productivity of the employees.

References

- Ansari Renani Gh., & Sabzi Ali Abadi, S. (2009). Prioritizing Organizational Factors Affecting Labor Productivity Improvement in Small Industries, *Commercial Investigations Monthly*, 29, 49-64.
- Askarian, M. (2009). The Concept of Culture Studies, *Bimonthly Human Development Policy*, 6(24).
- Bahadori M.K., Teymour-Zade, E., & Masteri Farahani H. (2013). Affective Factors on the Increase in Labor Productivity in a Healthcare Organization, *Military Medicine Magazine*, 15 (1), 75-86.
- Boroomand Z., & Moosavi S.A. (2008). Investigating the Effect of Restoring the Organizational Structure in the Productivity of Electricity Distribution of Tehran Organization, *Electricity Industry Monthly Journal*, 159, 37-43.
- Ghahremani Kia F. (2012). Investigating the Affective Factors on Improving Labor Productivity, *Social Security Journal*, 36 and 37.
- Hatami S., & Dastar, H. (2012). Disclosing the Role of Learning in Labor Productivity Using Empowerment, *Two Monthly Magazine of Human Resources Management Studies of Imam Hossein University*, 4(1), 27-53.
- Khademi Zare, H., Fakhrzad, M.B., & Akrami, M.K. (2010). Prioritizing Motivational Factors with the Goal of Increasing Productivity, *Management and Human Resources of Oil Industry Journal*.
- Khaghani, M. (2003). The Effect of Motivation on Organization Productivity, *Fourth Conference on Quality and Productivity in Electricity Industry*.
- Mahdavi Nezhad H., & Jarjar-Zade A.R. (2010). Measuring the Labor Productivity in Welfare Industrial Organizations of Khuzestan, *Ravesh Journal*, 22, 16-18.
- Moghadasi, A. (2010). Organizational Plans for Causing Motivation, *Monthly Printing and Advertisement*, 10.
- Monavarian A., & Bakhtayi A. (2006). Identifying Organizational Culture Based on Denison Model, *Fourth International Conference of Management*.
- Monavarian A., Askari, N., & Mostafa, A. (2007). Structural and Conceptual Aspects of Science-based Organizations, *First National Conference of Science Management*.

- Mozafar H. (2007). Investigating the Compliance of Organizational Structure with Purposeful Goals in IRIB Organization, *Rahbord Monthly Magazine*, 44.
- Pazire, E. (2011). Employee Motivation, Musts and Must Nots, *Nasaji-e-Emrooz Journal*, 126.
- Rahnavard F., & Khodabakhsh M. (2011). Structural Model of Improving Laborer's Productivity, *Public Administration Journal*, 32 (7), 81-94.
- Salehi Sedghiani, J., Mohammadi Moghadam, A., & Habib-Zade Ashab, R. (2009). Investigating the Significant Organization Factors on the Labor Productivity of State Police Command Staff of Lorestan Province, *Social Order Journal*, 1,1.
- Tartari, M., & Athari, A. (2012). Employee Empowerment, *Internal Magazine of Budget and Planning Association of Mashhad Ferdowsi University*, 46, 8.
- Vaezi R., & Sabzikaran E. (2007). Investigating the Relationship Between the Organizational Structure and Employee Empowerment of National Oil Products Distribution of Iran Employees, *Tehran Region, Evolution Management Journal*, 2(3).
- Zahedi, Sh., Kazemi S.A., Alizade. M., & Maleki E. (2009). Investigating the Factors Affective on Employee Motivation, *Management and Human Resources in Oil Industry Journal*, 3 (7).