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## EXAMINING THE HUMAN RESOURCE ARCHITECTURE RELATIONSHIP WITH EMPLOYEE PRODUCTIVITY OF CHEMICAL INDUSTRIES

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### Abstract

The purpose of the study was to examine the human resource architecture with employee's productivity of chemical industries of Nooriabad. The purpose of the organization is big or small formation that with specific intent has created to achieve a specific goal. Enterprise architecture is a set of principles, rules, standards and guidelines that led the design of all components of the organization and how the relationships between these components. The method of the study was the descriptive survey and correlational study. The population of the study was employees of the chemical industries of Nooriabad. The sample size of the study was 200 from the whole population of employees. A simple random sample technique was used for data collection. Questionnaire was used as an instrument for data collection and data were analyzed in SPSS Software. The result shows that there is a significant relationship between human resources architecture and its dimensions with labor productivity with the help of Person correlation test,

univariate and multivariate regression Strategic Human Resource Management (SHRM) has the greatest impact on labor productivity and then value-based human resources management has the greatest impact on labor productivity of Chemical industries.

**Keywords: human resource architecture, productivity, Nooriabad, Chemical industries.**

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## **Introduction**

Human resource management has been defined "to identify, select, hire, train and develop human resources to achieve organizational goals". The purpose of the human resources of an organization is all those who are working at different levels of the organization [1]. The purpose of the organization is big or small formation that with specific intent has created to achieve a specific goal. Enterprise architecture is a set of principles, rules, standards and guidelines that led the design of all components of the organization and how the relationships between these components. Today, government agencies as well as private organizations are faced with demands and diverse needs of the environment, which should react well to meet and deal with those needs. In the current competitive environment, government agencies are also required to provide product and service of quality, reduce costs and efficient use of organizational resources. As a result, in the public sector the concepts of performance, efficiency, effectiveness, and performance management must also be taken into consideration [2]. Today, new change has been added to the roles of human resources. Some of these roles are business partner, leader, human resource professionals, and agents of change. Human capital is the basis for the core competencies of organizations in knowledge-based competition [3]. The challenge that organizations face today, is that there is an important distinction between management and traditional practices and management of knowledge work; identifying these differences and understanding how to manage them, in making competitiveness is of crucial importance [4]. In light of the foregoing, and the importance and role of employee productivity of Nooriabad Chemical industries in improving organizational performance and like it the growth and development of the country, and the impacts of human resources architecture on it, the purpose of the study was to identify the significant relationship between human resources architecture and employee productivity in Nooriabad Chemical industries or not?

## **Literature Review**

Human resource engineering is a new area in the literature of human resource management. That it is intended to draw the human aspects of the organization and highlight the role of key personnel in the implementation of the mission and strategies of the organization. Hence, in terms of theoretical literature, there is not a lot of resources on this topic. But since it has roots in current theories and theoretical styles, efforts have been made to examine the roots, principles, and related theories and the main origin of these patterns in this field [5].

This approach is applicable to various organizations with different situations and maturity levels. Labor productivity only refers to the aspect of increasing the quantity or improving the quality of

products (goods or services) which is created by improving the quality and the efforts of human resources [6,7]. According to this definition a direct relationship is created between productivity and enabling the potential and actual ability of people. The higher percentage of this ability be streamlined, equally greater efficiency can be expected. Enterprise architecture is a key strategy that increases organizational efficiency and effectiveness, and application of its new methods causes to create dynamic, extensible and competitive organizations in the great scenes of competition [8,9]. Today, organizations are looking to their employees as an important strategic resource to achieve their goals; so investing in actions that empower employees, improve their skills and their motivation will increase the organization's ability in facing with challenges ahead. Human resources in the public sector in Iran have a different situation than other sectors [10]. In this section, labor productivity is lower than in the private sector, decision-making power of individuals and consequently their innovation and authority is limited, and the ratio of entrepreneurship and change is low.

### **Research Methods**

The method of the study was the descriptive survey and correlational study. The population of the study was employees of the chemical industries of Nooriabad. The sample size of the study was 200 from the whole population of employees. A simple random sample technique was used for data collection. Questionnaire was used as an instrument for data collection and data were analyzed in SPSS Software. Due to in various research projects, the researcher's aim is different, so the researcher uses a variety of instruments to collect information. In order to collect information in this study the library studies and field research methods were used. In this way that, in order to collect the theoretical foundations the library method with refer to documents, websites, databases and scientific articles and theses, etc. was used. The data for this study were collected through questionnaires.

### **Research Hypothesis**

- Human resource architecture forms have an impact on labor productivity chemical industries.
- H0: human resource architecture forms have no impact on labor productivity in chemical Industries.
- H1: human resource architecture forms have an impact on labor productivity in chemical Industries.

### **Result and Discussion**

The result and discussion tells the details of collected data and using statistical tests. Pearson correlation test results in Table 1 show that there is a positive and significant relationship between human resources architecture and labor productivity at 99% confidence level

(sig=0/000, r=0/540).This means that with the adoption and implementation of the human resources architecture, labor productivity increases and vice versa.

**1. Pearson correlation coefficient between human resources architecture with labor productivity**

labor productivity	Variable name	
0/540	The amount of correlation(r)	architecture
0/000	The significance level (sig)	
200	Number	

**Table 1: Pearson correlation coefficient between human resources architecture with labor productivity**

To understand the impact of human resources architecture forms on labor productivity two-variable linear regression test was used. The Results of Table 2 shows that the regression coefficient R between human resources architecture and labor productivity is equal to 0/540. The coefficient B is equal to 0/219 and indicates that a unit change in human resources architecture can cause 0/219 unit change in the dependent variable i.e. labor productivity. R<sup>2</sup>between the two variables human resources architecture and labor productivity is equal to 0/291and indicates that 29/1 percent of changes of labor productivity are due to human resources architecture.

**2. The results of the bivariate regression between human resources architecture and labor productivity**

The significance level	t Value	Beta Coefficient	B Coefficient	R <sup>2</sup>	R	
0/000	9/025	0/540	0/219	0/291	0/540	Human Resource Architecture

**Table 2: The results of the bivariate regression between human resources architecture and labor productivity**

Pearson correlation test results in Table 3 show that there is a positive and significant relationship between incentive human resources management and labor productivity at 99% confidence level (sig=0/000, r=0/382).This means that with the adoption and implementation of the incentive human resources management, labor productivity increases and vice versa. Table 3 shows the results above.

**3. Pearson correlation coefficient between incentive human resource management with labor productivity**

labor productivity	Variable name	
0/382	The amount of correlation(r)	Incentive human Resource Management
0/000	The significance level (sig)	
200	Number	

**Table 3: Pearson correlation coefficient between incentive human resource management with labor productivity**

To understand the impact of incentive human resources management on labor productivity two-variable linear regression test was used. The Results of Table 4 shows that the regression coefficient R between incentive human resources management and labor productivity is equal to 0/382. The coefficient B is equal to 0/514 and indicates that a unit change in incentive human resources management can cause 0/514 unit change in the dependent variable i.e. labor productivity. R<sup>2</sup> between the two variables incentive human resources management and labor productivity is equal to 0/146 and indicates that 14/6 percent of changes of labor productivity are due to incentive human resources management.

**4. The results of the bivariate regression between incentive human resource management and labor productivity**

The significance level	t Value	Beta Coefficient	B Coefficient	R <sup>2</sup>	R	
0/000	5/823	0/382	0/514	0/146	0/382	Incentive human Resource Management

**Table 4: The results of the bivariate regression between incentive human resource management and labor productivity**

Pearson correlation test results in Table 5 show that there is a positive and significant relationship between value-based human resources management and labor productivity at 99% confidence level (sig=0/000, r=0/421). This means that with the adoption and implementation of the value-based human resources management, labor productivity increases and vice versa.

**5. Pearson correlation coefficient between value-based human resources management with labor productivity**

labor productivity	Variable name
0/421	The amount of correlation(r)

0/000	The significance level (sig)	Value-based Human Resource Management
200	Number	

**Table 5: Pearson correlation coefficient between value-based human resources management with labor productivity**

**6. The results of the bivariate regression between value-based human resources management and labor productivity**

The significance level	t Value	Beta Coefficient	B Coefficient	R2	R	
0/000	6/532	0/421	0/517	0/177	0/421	Value-based Human Resource Management

**Table 6: bivariate regression between value-based human resources management and labor productivity**

The Results of Table 6 shows that the regression coefficient R between value-based human resources management and labor productivity is equal to 0/421. The coefficient B is equal to 0/517 and indicates that a unit change in value-based human resources management can cause 0/517 unit change in the dependent variable i.e. labor productivity. R2 between the two variables value-based human resources management and labor productivity is equal to 0/177 and indicates that 17/7 percent of changes of labor productivity are due to value-based human resources management.

**7. Pearson correlation coefficient between Administrative Human Resources Management with labor productivity**

labor productivity	Variable name	
0/376	The amount of correlation(r)	Administrative Human Resources Management
0/000	The significance level (sig)	
200	Number	

**Table 7: Pearson correlation coefficient between Administrative Human Resources Management with labor productivity**

Pearson correlation test results in Table 7 show that there is a positive and significant relationship between Administrative Human Resources Management and labor productivity at 99% confidence level (sig=0/000, r=0/376).This means that with the adoption and

implementation of the Administrative Human Resources Management, labor productivity increases and vice versa. Table 7 shows the results above.

**8. The results of the bivariate regression between Administrative Human Resources Management and labor productivity**

The significance level	t Value	Beta Coefficient	B Coefficient	R2	R	
0/000	5/708	0/376	0/373	0/141	0/376	Administrative Human Resources Management

**Table 8: Bivariate regression between Administrative Human Resources Management and labor productivity**

**9. Pearson correlation coefficient between Strategic Human Resource Management with labor productivity**

labor productivity	Variable name	
0/515	The amount of correlation(r)	Strategic Human Resource Management
0/000	The significance level (sig)	
200	Number	

**Table 9: Pearson correlation coefficient between Strategic Human Resource Management with labor productivity**

Pearson correlation test results in Table 9 show that there is a positive and significant relationship between Strategic Human Resource Management and labor productivity at 99% confidence level (sig=0/000, r=0/515). This means that with the adoption and implementation of the Strategic Human Resource Management, labor productivity increases and vice versa. These results can be generalized to the entire population and in this case the hypothesis is confirmed and the null hypothesis is rejected. Table 9 shows the results above.

**10. Bivariate regression between Strategic Human Resource Management and labor productivity**

The significance level	t Value	Beta Coefficient	B Coefficient	R2	R	
0/000	8/452	0/515	0/820	0/265	0/515	Strategic Human

						Resource Management
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**Table 10: The results of the bivariate regression between Strategic Human Resource Management and labor productivity**

To understand the impact of Strategic Human Resource Management on labor productivity two-variable linear regression test was used. Results of Table 10 show that the regression coefficient R between Strategic Human Resource Management and labor productivity is equal to 0/515. The coefficient B is equal to 0/820 and indicates that a unit change in Strategic Human Resource Management can cause 0/820 unit change in the dependent variable i.e. labor productivity. R<sup>2</sup> between the two variables Strategic Human Resource Management and labor productivity is equal to 0/265 and indicates that 26/5 percent of changes of labor productivity are due to Strategic Human Resource Management.

### Conclusion and Recommendations

Human resource architecture forms have an impact on labor productivity in chemical industries of Nooriabad. To test this hypothesis regression analysis was used. The results of the regression analysis have shown that the human resources architecture has a significant positive impact on labor productivity. So the main hypothesis is confirmed. This result shows that by improving human resources architecture, labor productivity will increase. In other words, attention and planning in the field of human resources architecture, as one of the organization's human resources management tasks, will increase staff productivity and improve organizational performance. Incentive human resources management has an impact on labor productivity in chemical industries of Nooriabad.

According to the results of two-variable linear regression, coefficient B is equal to 0/514 and indicates that a unit change in incentive human resource management increases labor productivity 0/514 unit. This result implies acceptance of the first sub-hypothesis of research. This result shows that by increasing expertise of individuals in their jobs, increasing specialist staff cooperation with the organization, increasing specialist employee satisfaction in the organization and greater organizations 'attention to welfare of specialist staff, the employee productivity and thus the performance of chemical industries of Nooriabad will improve.

Value-based human resources management has an impact on labor productivity in chemical industries of Nooriabad.

This result suggests that with the value-based management in the organization (through the induction of key positions within the organization, holding training programs for specialist staff, Increased sense of responsibility in specialist staff to the organization, the organization's efforts to maintain and strengthen the specialist staff, and the organization's attempts to attract professionals for jobs)employee productivity increases.

To understand the impact of Administrative Human Resources Management on labor productivity the two-variable linear regression test was used. The results show that the



coefficient B is equal to 0/373 and indicates that a unit increase in Administrative Human Resources Management, increase the dependent variable i.e. labor productivity 0/373unit. This result confirms the third hypothesis. This implies that, whatever non-key (non-expert) employees working in organizations be smaller, whatever the role of people in organizational goals be more notable, whatever people tend more to fulfill their obligations and have more accuracy and whatever the need to change manpower in the organization be less, the organizational efficiency will improve more.

Test results of two-variable linear regression show that coefficient B is equal to 0/820 and indicates that a unit increase in strategic human resource management increases labor productivity 0/820unit. So the fourth research hypothesis is accepted. Based on the results, by using and implementing strategic human resource management, labor productivity increases and vice versa. The results of the hypothesis suggest that attention and emphasis on strategic human resource management (through understanding the importance of jobs and workers, reducing the possibility of eliminating the job, increasing the standard of available jobs in the organization and increasing the proportion of jobs of employees with organizational goals) will increase employee productivity and improve organizational performance.

### **Suggestions for Future Research**

- Similar studies in other public and private organizations be done and the results be evaluated and the results be used in planning and policies.
- Comparative researches be done on increasing labor productivity in private and public companies.
- To study and learn from models of successful countries in the world in the field of management so they can implement the best management in their organization.
- Review the moderating role of human resource outcomes such as commitment and employee satisfaction in the relationship between Human Resources Architecture and Organizational Performance.
- In a research, other factors affecting employee productivity in chemical industries of Nooriabad be examined.

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