

**Research Article**

## **INVESTIGATING THE RELATIONSHIP BETWEEN EMPOWERMENT, INTELLECTUAL CAPITAL AND EMPLOYEES' PRODUCTIVITY IN THE EDUCATION**

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### **ABSTRACT**

The aim of this study is to investigate the relationship between empowerment, intellectual capital, and employees' productivity in the education and training organization of Boomehen, Damavand, and Firoozkooch in academic year 2013-2014 in Iran. This study was a descriptive correlational. The statistical population includes all the teachers and staffs of education and training organization in 2013. 300 employees were selected using stratified random sampling method. The Spritzer's psychological empowerment questionnaire (1997), Bonity's Intellectual Capital questionnaire (1998), and Hersey and Blanchard and Goldsmith's productivity questionnaire (1980) were used. To assess reliability, the Cronbach's alpha coefficients for the components of questionnaires were higher than 0.70 and approximately 0.91 results of the study showed: There is a significant relationship between empowerment with employees' productivity, and intellectual capital with employees' productivity in the education and training organization.

**Keywords:** *Education, Employees' Productivity, Empowerment, Intellectual Capital*

### **INTRODUCTION**

The modern organizations are constantly influenced by their surroundings. Hence, the power of consistency and conformity with recent developments will be increased through recognizing this important issue. Thus, despite the obvious and hidden challenges in the world, the importance and necessity of empowering is more and more evident. Empowerment means strengthening. In other words, it means to help people improve their sense of self-confidence, eradicate their inability or helplessness, create activity enthusiasm in individuals, and motivate them to perform their task (Hersey and Blanchard quoted by Kabiri, 2010). Assuming that the managers were friendly with their staff, the concept of empowerment was proposed in 1950. Assuming that managers had provided the conditions for releasing the potential of employees, it continued until 1990 (Oraie, 2011). Empowerment is a new and effective technique for improving organizational productivity by taking advantage of employees' power.

Also in competition arenas, all managers and organizations try to increase productivity by focusing increasingly on organizational structure, organizational climate, the control position of managers, managers' personalities, and etc. The productivity is the success rate of system in using resources to achieve goals. The concept of productivity includes two concepts of efficiency and effectiveness. In this regard, managers inevitably have to protect their intangible assets to survive and win in the competitive knowledge-based world. To overcome these challenges, organizations should pay more attention to develop and strengthen the internal skills and capabilities of staff. This may be done through the basics of organizational knowledge and intellectual capital. Organizations use it to achieve better performance in the business world. Therefore, it is understood that one of the major benefits of staff empowerment is improving their intellectual capital (Maghsoodi, 2013). The intellectual capital can be considered from three dimensions: human capital, structural capital, and client capital. Human capital can be defined as the collective ability of firms to extract the best solution through the knowledge of individuals. Capital structure can be described as the organizational ability of the company to meet the market demand and requirements. Client capital refers to the satisfaction and loyalty of end-user to the organization (Seraji, 2013).

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In 1969, Mr. John Galbraith was the first who used the intellectual capital term. Since productivity in education is of particular importance, there is a need to improve it in the education system of Iran. However, the improvement of productivity in education is inevitable to achieve the goals and economic and social development. In this regard, besides employee empowerment and intellectual capital plays a major role in improving enterprise productivity, it tries to increase productivity rates, improve lives and well-being for individuals in the society and individuals in an organization.

Meanwhile, the functional role of staff in education and training organization –as the most fundamental organization in all societies- should not be ignored. Today, these systems have a significant share of the budget in each country. Due to its importance in the economic, social, cultural, and political areas of community, it is essential to prevent loss of human and financial capital. Unfortunately, in many cases, especially in underdeveloped or less developed countries, we witness such weaknesses. Considering the importance of all the above-mentioned factors, the researcher tries to answer this question: is there any relationship among the empowerment, intellectual capital, and productivity in education and training organization?

In their study, Maria Elena and Jacuzzi (Mayrs, 2005) concluded that there was a positive relationship between intellectual capital and productivity in manufacturing companies in Italy. In his study on banking industry in Thailand, (Chan, 2007) showed that there was a strong relationship between intellectual capital and productivity in the banks. In his study entitled "The effect of intellectual capital components on financial performance in the hotel industry" (Lake, 2007) showed that there was a significant relationship between the components of intellectual capital and financial performance in this industry. This indicated the high impact of communication capital on performance in compared with other components of intellectual capital.

Kamath (2008) studied the relationship between intellectual capital components and traditional standards of companies' performance, such as innovation and productivity, in the pharmaceutical industry in India. He showed that human capital has a significant impact on profitability. In a study entitled "The relationship between intellectual capital and productivity in all organizations", (Feller, 2011) showed there is a positive relationship between intellectual capital of staff and productivity within the organizations. Mariela (2012) examined the relationship between intellectual capital, market value, and productivity in American securities companies during the period 2008 to 2010. The results indicated that intellectual capital has a positive effect on market value and productivity in these companies. This research also showed that intellectual capital can be used as a predictor of productivity rates in organizations. (Chang, 2009) examined the relationship between empowerment and intellectual capital components in the French automotive industry. He concluded that there is a significant relationship between intellectual capital components and empowerment.

### **MATERIALS AND METHODS**

The research goal investigating the relationship between empowerment, intellectual capital, and employees' productivity in the education and training organization of Boomehen, Damavand, and Firoozkooh in academic year 2013-2014.

**Research Hypotheses:** There is a relationship between empowerment, intellectual capital, and employees' productivity in the education and training organization of Boomehen, Damavand, and Firoozkooh in academic year 2013-2014. There is a relationship between empowerment and employees' productivity in the education and training organization of Boomehen, Damavand, and Firoozkooh in academic year 2013-2014. There is a relationship between intellectual capital components and employees' productivity in the education and training organization of Boomehen, Damavand, and Firoozkooh in academic year 2013-2014. This was a descriptive correlation study.

**The Study Population:** The study population includes all the teachers and staffs of education and training organization in Boomehen, Damavand, and Firoozkooh in 2013.

**The Sample Size:** A sample of 300 subjects was obtained using the following formula.  $d=0/5$ ,  $p=0/5$   $q=2N=1200$ ,  $T: 5\%$

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$$n = \frac{\frac{t^{2pq}}{d^2}}{1 + \frac{1}{N} \left( \frac{t^2 pd}{d^2} - 1 \right)}$$

**Sampling Method:** The stratified random sampling method is used for sampling.

**Research Tools:** In this study, the Spritzer's psychological empowerment questionnaire (1997), Bonity's Intellectual Capital questionnaire (1998), and Hersey and Blanchard and Goldsmith's productivity questionnaire (1980) were used. To assess reliability, the Cronbach's alpha coefficients for the components of questionnaires was higher than 0.70 and approximately 0.91. This confirms the reliability of the questionnaires. The formal content validity was assessed to determine the validity of measuring tool.

## Methods of Data Analysis

In this study, the statistical methods of frequency distribution, central indices such as mean, distribution parameters such as standard deviation and variance, and inferential methods such as correlation and regression tests are used.

## RESULTS AND DISCUSSION

The first hypothesis: there is a relationship between empowerment, intellectual capital, and employees' productivity in the education and training organization of Boomehen, Damavand, and Firoozkooh in academic year 2013-2014.

**Table 1: The results of stepwise multiple regression analysis to predict the productivity of employees**

Stage	Model	Squares Sum	df	Squares Mean	F	Sig.	R	R <sup>2</sup>
1	Regression	44118/571	1	44118/571	125/838	0/001	0/545	0/297
	Residual	104478/416	298	350/599				
	Total	148596/987	299					
2	Regression	47712/231	2	23856/116	70/231	0/001	0/567	0/321
	Residual	100884/755	297	339/679				
	Total	148596/987	299					

Step 1: predictor variable: Empowerment

Step 2: predictive variable: intellectual capital

Dependent variable: productivity

According to Table 1, the correlation coefficient of this variable with productivity is 0.297. This variable was able to predict 29.5% of the variation in productivity variable. This value is significant. The intellectual capital enters into the equation. The correlation coefficient of these two variables with the productivity variable is 0.321 and significant. The coefficient of determination indicates that the two variables predict 31.7% of the variation.

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**Table 2: The standard and non-standard coefficients of regression analysis in predicting employee productivity**

Model		Unstandardized regression <i>B</i> coefficient	Regression standard error <i>SEB</i>	Standardized regression coefficient <i>Beta</i>	( <i>t</i> )	Sig.
1	Residual	10/738	7/545		1/403	0/156
	Empowerment	1/054	0/094	0/545	11/218	0/000
2	Residual	-71/768	26/431		-2/715	0/007
	Empowerment	0/898	0/104	0/464	8/612	0/000
	Intellectual Capital	0/583	0/179	0/175	3/253	0/001

According to Table 2, the regression coefficient of the predictor variables indicates that these two variables can explain productivity significantly. It can be said that increasing the empowerment ends up with productivity increase. Also, increasing of intellectual capital will increase the productivity.

The second hypothesis: There is a relationship between empowerment and employees' productivity in the education and training organization of Boomehen, Damavand, and Firoozkooh in academic year 2013-2014.

**Table 3: Summary of regression analysis to examine the relationship between empowerment and employees' productivity**

Predictor	Dependent Variable: Productivity				
	B	Estimate error	Beta	Standardized Coefficients <i>t</i>	Sig
Constant	15/535	7/910		1/964	0/049
Job meaningfulness	0/308	0/432	0/043	0/714	0/476
Job Competency	0/688	0/308	0/113	2/235	0/026
Job selection	1/569	0/419	0/231	3/748	0/000
Job effectiveness	1/725	0/377	0/261	4/572	0/000
Job involvement	0/842	0/272	0/163	3/099	0/002

$F=27/139$  Rectified  $R^2=0/305$   $R^2=0/317$   $R=0/563$

According to table 3, the  $R^2=0.317$  indicates that 31.7% of variance can be explained by the productivity variable.

This shows there is a significant correlation between the empowerment and productivity of staff in education and training organization. Hence, increasing the empowerment of employees results in their productivity increase.

**The Third Hypothesis:** There is a relationship between intellectual capital components and employees' productivity in the education and training organization of Boomehen, Damavand, and Firoozkooh in academic year 2013-2014.

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**Table 4: Summary of regression analysis to examine the relationship between intellectual capital and employees' productivity**

Predictor	Dependent variable: Productivity				
	B	Estimate error	Standardized coefficients Beta	t	Sig.
Constant	116/992	29/235		4/002	000
Human Capital	1/862	0/378	0/273	4/930	000
Structural Capital	2/058	0/699	0/249	2/944	0/003
Communication Capital	0/072	00/669	0/009	0/108	0/914

$f=20/376$  Rectified  $R^2=0/163$   $R^2=0/171$   $R=0/414$

According to table 4, the  $R^2=0.171$  indicates that 17.1% of variance can be explained by the productivity variable. This shows there is a significant correlation between the intellectual capital and productivity of staff in education and training organization. Thus, increasing the intellectual capital of employees results in their productivity increase.

## Conclusion

Productivity is one of the factors that play an important role in today's modern organizations. It has attracted the attention of all managers and organizations. The managers and organizations try to increase productivity by focusing increasingly on organizational structure and organizational climate. Since productivity in education is of particular importance, there is a need to improve it in the education system of Iran, according to the understanding of the situation. However, the improvement of productivity in education is inevitable to achieve the goals and economic and social development. Organizations face new challenges for surviving. To overcome these challenges, organizations should pay more attention to developing and strengthening the internal skills and capabilities of staff. This may be done through the basics of organizational knowledge and intellectual capital. Therefore, it is understood that one of the major benefits of staff empowerment is improving their intellectual capital.

The findings of this study confirm the above content. In the following, this research's hypotheses and research in this field will be discussed. The first hypothesis: there is a relationship between empowerment, intellectual capital, and employees' productivity in the education and training organization of Boomehen, Damavand, and Firoozkooh in academic year 2013-2014. The correlation coefficient of empowerment with productivity is 0.297. This variable was able to predict 29.5% of the variation in productivity variable. Also, the regression coefficient of the predictor variables indicates that, productivity increases by increasing the empowerment. Therefore, productivity increases by increasing of intellectual capital. The results of this hypothesis is consistent with the results of (Chang, 2007; Feller, 2011; Mariela, 2012; Rudeze, 2011), confirm the results obtained from testing this hypothesis in relation to the relationship between intellectual capital and workforce productivity.

**The Second Hypothesis:** There is a relationship between empowerment and employees' productivity in the education and training organization of Boomehen, Damavand, and Firoozkooh in academic year 2013-2014. According to table 9, the  $R^2=0.317$  indicates that 31.7% of variance can be explained by the productivity variable. This shows there is a significant correlation between the empowerment and productivity of staff in education and training organization. Hence, increasing the empowerment of employees ends up with their productivity increase. In this regard, other research confirms the result obtained in testing this hypothesis. For example, (Chang, 2007) also showed that there is a significant relationship between employee empowerment and intellectual capital components.

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**The Third Hypothesis:** There is a relationship between intellectual capital components and employees' productivity in the education and training organization of Boomehen, Damavand, and Firoozkooch in academic year 2013-2014. According to table 10, the  $R^2 = 0.171$  indicates that 17.1% of variance can be explained by the productivity variable. This shows there is a significant correlation between the intellectual capital and productivity of staff in education and training organization. By increasing the intellectual capital of employees, their productivity increases. The result of testing this hypothesis is consistent with the results of (Kamath, 1997; Elena, 2005; Chan, 2007; Feller, 2011; Lake, 1998).

According to the results of the present study, the empowerment of employees, which is the creation of competence, effectiveness, partnership, and choosing right, may affect the individuals to try to achieve organizational goals, because they will consider the organizational goals in line with their individual goals. So if the empowerment will increase, the individuals' knowledge and human capital could easily be used to fulfill personal and organizational goals. This will provide efficiency, effectiveness, and subsequently the productivity. However, it is important to recognize the potential and intangible capital of organization and use them to empower individuals.

In this regard, it is recommended that, the teaching of empowerment to be used for promoting staff's productivity in the form of a project in future studies. We suggest that the relationship between productivity and other organizational variables such as entrepreneurship which is somehow related to empowerment to be examined in future research. There is a direct relationship between the skills and knowledge of employees and their entrepreneurship and effectiveness. The replacement of knowledge workers instead of craftsmen happens through a paradigm shift in human resource development. The development of employees' knowledge and skills is the trump card of knowledge organizations. Therefore, it is suggested that entrepreneurship and training courses to be held regularly in education and training organization to promote the empowerment of employees. Employees need trust, decentralized power, and acceptance of new ideas. Managers should accept the new ideas of employees. The two-way communication is a tool which expands the knowledge of employees through communication channels for providing better service to customers. Appropriate communication and information channels should be created in education organization to raise awareness and empowerment of employees. It is suggested managers and officials pay attention to the needs and motivations of their employees and staff to be paid a bonus based on their performance.

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