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THE EFFECT OF EMOTIONAL INTELLIGENCE ON THE EFFICIENCY OF SERVICE ORGANIZATIONS; CASE STUDY: EDUCATION DEPARTMENT OF TEHRAN PROVINCE

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ABSTRACT

Emotional Intelligence is a subject that aims to explain and interpret emotional status in personal capabilities. Managers with high emotional Intelligence are effective leaders that reach organizational goals with the maximum of productivity, satisfaction and job commitment. Given the importance of emotional intelligence in management, this essay examines the impact of emotional intelligence on productivity. Statistical Population of the research consists of all personnel of Education Department of Tehran Province. Moreover; we selected a sample of 150 people among them. Data collection tools are questionnaires, so in order to measure emotional intelligence and productivity, we used the EQ-1 scale and the Achieve scale. To measure the reliability of tools Cronbach's alpha is adopted. The total reliability coefficient of Emotional Intelligence questionnaire was 0.83 and the reliability coefficient of productivity was 0.82. Research has been done as a survey and it is specifically, based on the structural equation modeling (SEM). Running structural equation modeling, the conclusions show the acceptance of research hypothesis and validity of measurement model and conceptual model of the research.

Keywords: *Emotional Intelligence, Productivity, Employee Performance, Efficiency, Effectiveness*

INTRODUCTION

Human Resources are of the most important strategic resource for any organization. Undoubtedly, the success of modern organizations is greatly affected by how they apply their staff. In order to face with the challenge of efficient use of this resource, more and more comprehensive understanding of the concepts related to human resources and special tools are required (Hersy and Blanchard, 1998). At the present time that the financial resources are not the main factor of development any more, having efficient employees results in improving organizations and consequently the global economic system. For example, a considerable part of GDP growth in Asian countries including South Korea, Japan and Malaysia is due to work force whose productivity is high. In the late twentieth century we witnessed a new application of psychology in workplaces, organizations and human resources management.

Today, emotional intelligence and productivity are the main drivers of organizational performance. And this quotes of Joseph Juran "the 21st century is called the century of quality," emphasizes the importance and necessity of knowing this subject (Tracy, 2006). This study aimed to assess the effect of emotional intelligence on employee productivity at Education Department of Tehran Province.

Research Literature

In the following section, research history, variables of productivity and emotional intelligence are examined.

Productivity

Productivity is an effective and efficient use of inputs and resources to produce or deliver outputs. Inputs are resources (such as energy, raw materials, capital and labor) that are used to create the outputs (which are the goods produced or services provided by an organization). In other words, productivity is to obtain the maximum profit possible, using the efficient use of labor, power, talent and skills of human resources, land, money, equipment, time, location, etc. to improve well-being (Tongen, 2005).

Acton & Golden interpret productivity as the ratio of actual output to expected resources and Aftalioean interprets productivity as the ratio of returns to the factors of production and consumption (Kasico, 1992).

Research Article

Michelet al interpret productivity as added value to inputs. Neely believed Productivity is the result of each work hour which is the main factor in determining a person's life average. Plas & Lewis believe productivity means that with what amount and quality of resources spent we produce goods in our organization, i.e. with fewer resources, produce quality goods. Sumanth interprets productivity as comparison between the physical input factors and Physical output factors.

Kelley & Caplan interpret Productivity as efficiency and effectiveness i.e. the ratio of the value added to the total time. Davenport *et al.*, define productivity as quality, efficiency and profitability.

Efficiency and Effectiveness

The definition of productivity consists of two main indicators of efficiency and effectiveness.

Efficiency is known as the ratio of the real return obtained to the predetermined (expected) standard return. In other words efficiency is the ratio of expected data to real data in the organization and the same as doing things right.

Effectiveness means the degree of achievement of determined goals and objectives, but Efficiency means to set goals correctly and determine proper goals in order to reach them. In fact, productivity means doing the right things right.

The Model of Hersey and Goldsmith

The Achieve model is one of the models developed by Hersey and Goldsmith in order to help managers with determining the reason of performance flaws and creating change strategies to solve these problems. In developing a model to analyze the human performance, Hersey and Goldsmith had two primary objects in their mind.

The first step in the Achieve model is considering the attitude and abilities of the followers.

Employees must have the needful tendency and capabilities to some extent in order to carry out the tasks. And in the second step, Porter & Lawler by adding assuming or understanding the independent role developed this idea. Employees need to have a proper understanding of doing approach in order to do every job properly.

Achieve Model $P=f(A.C.H.I.E.V.E)$

The performance of employees is a function of variables mentioned above.

P= performance (the degree to which goals have been reached)

A = ability (the power of carrying out a task)

C= clarity (clarity of understanding of accepting work procedure, delivery and the approach toward doing it.

H= Organization help (the support which employees need to complete the effectiveness)

I= incentive (Passion, enthusiasm and willingness to do the task)

E= Evaluation (The mechanism of judgment in relation to the procedure of doing the work)

V= validity (Proportionate, lawful and legitimate decisions of the Director)

E= environment of the organization, all external affecting Factors.

Achieve model interpret feedback component including everyday training and a formal evaluation of the performance of individuals, very effective. Heresy and Goldsmith (1980) have chosen seven variables related to effectiveness performance management through the rest, and by combining the first letter of each of the operational parameters proposed a seven-letter word to remember, which includes Clarity, help, incentive, evaluation, validity and environment.

Emotional Intelligence

The term emotional intelligence first was adopted by Wayne Payne in his doctoral thesis; and Salovey and Mayer (1990) have developed its meaning. Mayer & Salovey (1993) believed emotional intelligence is a form of social intelligence and it consists of the ability to control our emotions and others and to draw distinction between them and the use of information for strategic thinking and action. And it consists of intrapersonal factors and interpersonal factors of Gardner; and they summarize it in 5 areas:

Emotional self- Awareness (ES):

The ability to know and understand our feelings

Self-regard (SR): The ability to be aware of our perception, self-acceptance and self-respect.

Research Article

Social – Responsibility (RE): The ability to express ourselves as a cooperative, effective and productive member in the group.

Flexibility (FL): Ability to adapt thoughts and behavior to a changing environment and situations

Problem solving (PS): Ability to identify and define the problems, as well as create and implement effective and potential solutions.

Stress Tolerance (ST): The ability to resist stressful Events and Situations pressure and bring about strong emotions, without giving in and deal actively and positively with pressure.

Other studies interpret emotional intelligence as an ability consisting of the capacity of perception, expression, understanding, using and management of emotions in ourselves and others (Salovey, 2002). According to Baron, emotional intelligence is a set of non-cognitive capabilities, competencies and skills that affect the individual's ability to successfully cope with the demands and the environment pressures (Hann, 2005). Emotional intelligence can have an important role in the workplace (Robins, 2007). The researchers declared that employees emotional intelligence can predict their performance and productivity (Sarney, 2007).

The ability to use or generate excitement to facilitate problem-solving play an important role in the performance of the group (Forges and Mayer, 2005). Therefore, emotional intelligence increases productivity because people emotional intelligence by using emotions leads to generating ideas and the production of a feeling and strengthening the spirit of cooperation and by understanding of our emotions and those of others would we gain insight into the motivations of individuals in the workplace (Salovey, 2002).

In a study with a pre-test and then intensive teaching emotional intelligence and then conducting a post-test we point out effective implementation of this structure in the workplace.

Central axis of the results of these studies is emphasis on the role of emotional intelligence in increasing performance, alertness, emotional and social skills (Shikdar and AaSawged, 2003). In a study Mavan (2004) assuming that people during their growth in terms of stressful situation become conditioned to some responses that in the case of those conditions, the conditioned responses immediately show themselves and the this vicious cycle repeats repeatedly, stated that it is required in addition to training some techniques and enabling the components of emotional intelligence, before putting in real terms, to enter this cycle and it is necessary to conduct its restoration so that help the person with identifying and controlling emotions and excitement.

Lau (2000) conducted a research on the management and emotional intelligence, and he found out that tenacious managers have higher abilities in some aspects of emotional intelligence. By the study conducted on 100 employees working in banks, Richard (2003) successfully investigated the relationship between emotional intelligence and Intelligence quotient. In this study, the ability to predict emotional intelligence regarding career success was recognizes much higher than Intelligence quotient. In a study Neely (1975) first measured 34 persons by measuring the emotional intelligence test, after a period of adaptation skills training, crisis management, independence, empathy and determination, pointed out to unimaginable growth in these areas.

After successfully passing this course, these people had a better ability to deal with life and others. Rogers (2005) conducted a study on the relationship between performance and positive emotional states in the environment. In that study, they were trying to show that positive emotional states of employees in the workplace also have positive effects on their overall performance.

This researcher believes that considering employees needs induce a sense of belonging and commitment to the organization. This study shows that in organizations in which emotional atmosphere are important, Motivation and strong commitment to the organization are created. Politis (2005) in his article indicated a big American corporation having 2600 employees and 75-year-old work experience, which despite this long experience, suffers from the problem of lack of competition, cooperation, innovation and participation among its employees. By consulting provided with a management college and after necessary consideration, the Corporation holds a six-month emotional intelligence training course for executives to enhance self-management. The results of this period were:

Research Article

- Saving 6 million dollars
- 43% reduction in work-related injuries
- Reduction in accidents by 41 percent.

Wannamaker (2006) after running a course on emotional intelligence suggests that people emotional intelligence leads in the following results:

- Career Success
- Better extra, intra organizational relationships
- Generating incentives to work more and better.

By conducting a study on sales staff Hann (2005) found a significant correlation between high sales and ability to deal with people.

Despite differences in the definition and evaluation of emotional intelligence, there are shared opinions and solid findings that suggest a crucial role of emotional intelligence in the effectiveness of the management and their success. In a survey of 200 companies worldwide, Robins (2007) shows that a third of the performance differences are between the technical and cognitive skills and two thirds of them are related to emotional abilities in the dimension of emotional intelligence. Tracy (2006) has shown that in workplaces where people are sympathetic and are integrated, more creativity and innovation can be seen.

Hedlund & Sternberg (2000), in their research, found that managers' self-awareness has a direct relationship with their management practices and successful performance. Conrad & Ma Mengel (2000), in the research, showed that successful managers (with high social ability) more easily communicate with its members and they value the satisfaction of their employees. Directors' mood, emotion and optimism or pessimism directly affects emotional states of the employees. This means that the emotional states have the power of being transmitted. A manager with emotional intelligence is aware of both his own feelings and the feelings of others, and he is able to maintain the emotional aspect of relationships. Companies, in which negative emotions like stress, anxiety and fear exist, may become close to a critical situation. Negative excitements result in high absenteeism, low creativity, and low quality of work and therefore it leads to low productivity.

At Regent University Lee (2005) conducted a study entitled the relationship between emotional intelligence and leadership behavior; the results showed a positive correlation between the leader performance and emotional intelligence; furthermore, between the leadership and the psychological power, there was a positive correlation.

Research Hypotheses

- Emotional intelligence has significantly positive effect on employee productivity.

Research Method

This research in terms of purpose is an applied study and in terms of data collection it is descriptive and correlational. The statistical population consists of all Education Departments of Tehran Province. Information is collected mainly by means of two sets of questionnaires; the first questionnaire is an emotional intelligence questionnaire including 23 questions which is an adaptation of the Bar-on Emotional Intelligence Inventory, which is the first cross-cultural questionnaire of emotional intelligence. The second questionnaire, which was adapted from productivity questionnaires of ACHIEVE model, includes 25 questions.

Both of questionnaires were designed by 5-point Likert scale in which the number 5 represents the largest agreement and the number 1 represents the lowest agreement.

Questionnaires were handed out to 150 senior managers and employees who had perfect knowledge in this field, and finally 131 answered questionnaires were collected and analyzed. In order to assess the validity two methods of content-related validity and construct-related validity were applied. Content-related validity was approved assessed by a number of experts and professors and the final questionnaire was developed according to the experts opinions. The construct-related validity was assessed in the confirmatory factor analysis based on the LISREL software. Reliability was evaluated by Cronbach's alpha; reliability was calculated for any set of items. Measures more than 7.0 were accepted. In this study,

Research Article

a two-stage procedure has been used to test the model. First, the measurement model was tested using confirmatory factor analysis and then structural equation modeling was used. Structural equation model was used in order to determine the final model fitting. Testing of confirmatory factor reliability of the questionnaire was confirmed by using factor analysis, and it was performed by using LISREL software. All questionnaires were approved at this stage. Collectively, these results indicate that this study's questionnaires have proper reliability and validity.

Statistical Population and Sample:

The statistical population consisted of all employees form the Education Departments of Tehran Province. The above-mentioned community is made up from people with a diverse combination of age, gender and educational background. Stratified random sampling was performed. The following equation was used to calculate the sample size in which:

$$n = \frac{NZ^2 \alpha / 2 \times P(1 - P)}{\varepsilon^2 (N - 1) + Z^2 \alpha / 2 \times P(1 - P)}$$

Z= the normal variable unit, at 95% confidence interval, ($z_{\alpha/2} = 1.96$)

ε : The amount of allowable error ($\varepsilon = 0.05$)

N= the size of Limited population which is about 250 people.

P values were considered equal to 0.5. Because if P=0.5, n gets its maximum possible value. This causes the sample becomes large enough.

So the sample size for this study is approximately: $N \approx 141$

And to ensure more, 150 questionnaires were distributed and 131 were collected.

Data Analysis and Research Findings

To test the hypothesis, the Spearman rank correlation test using the software SPSS 19, was used to assess the correlation between variables. Then, the assumptions by the implementation of a structural equation model, using LISREL software, were tested. Table 1 shows the correlation results among the variables.

Table 1: Spearman Correlation Matrix among Research Variables

Emotional self-Awareness	1.000						
Self-regard	0.375**	1.000					
Accepting Responsibility	0.399**	0.272**	1.000				
Flexibility	0.212*	0.190*	0.154	1.000			
Problem solving	0.496**	0.539**	0.426**	0.280**	1.000		
Stress Tolerance	0.186*	0.358**	0.102	0.212*	0.272**	1.000	
Productivity	-0.30	0.043	0.49	0.52	0.42	-0.09	1.000
P<	0.05						
**P<0.01*							

Structural Equation Modeling

In order to assess causal relationships among mentioned assumptions structural equation modeling was used. In addition to being the final step in confirmatory factor analysis, which was carried out on measures of research earlier, by Fitting Model Indexes the validity of the proposed model us shown.

Figure 2 shows the result of this test in standard mode and Figure 3 shows the results in a significant case that is obtained using LISREL software. It indicates the standard coefficient and significant coefficient of the relationships among variables.

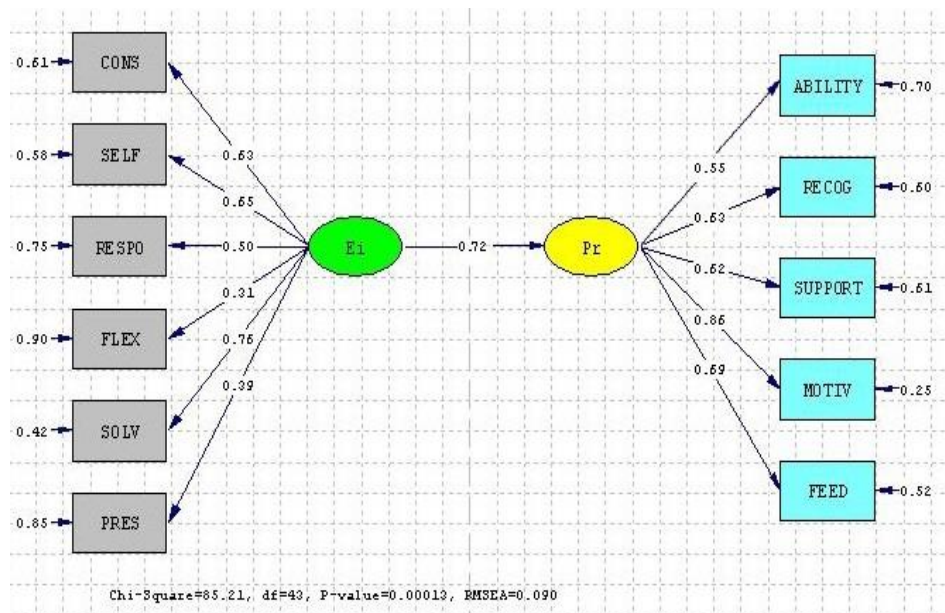


Figure 1: Structural Equation Modeling (Standardized Coefficients)

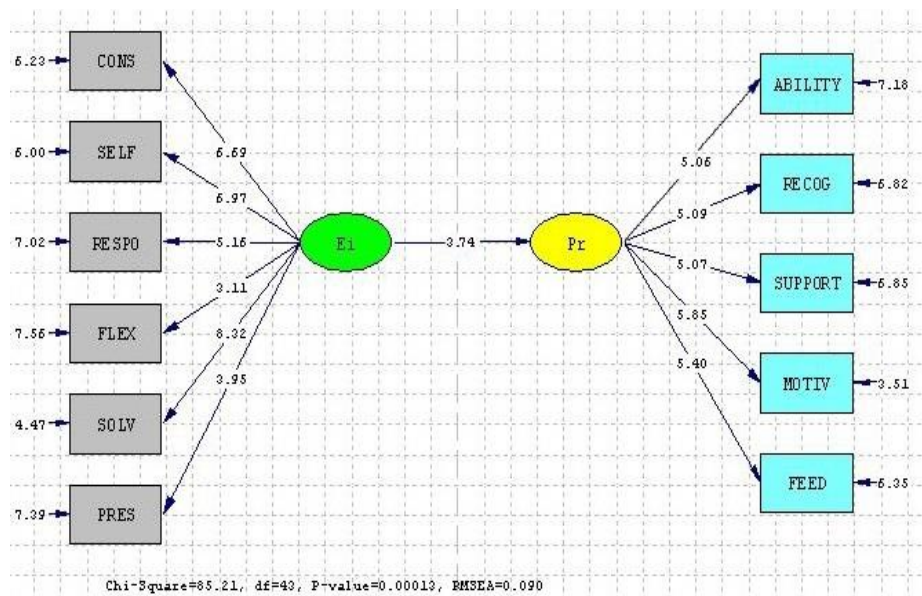


Figure 2: Structural Equation Modeling (Being Significant)

Table 1: Measures of Emotional Intelligence, EQ-I (Bar, Ann, 2000)

Emotional Intelligence	Standard Coefficient	T-Value
1- Emotional Self- Awareness(ES)	0.63	6.69
2- Self Regard (SR)	0.65	6.97
3- Social – Responsibility (RE)	0.50	3.16
4- Flexibility (FL)	0.31	3.11
5-- Problem solving (PS)	0.76	8.32
6- Stress Tolerance (ST)	0.39	3.95

Research Article

Table 2: Measuring Model of Achieve (Heresy and Gold Smith, 1998)

Productivity	Standard Coefficient	T-Value
1- Employees Ability to Work	0.55	5.06
2- Clarity of Job	0.63	5.09
3- Support	0.62	5.07
4- Employees Incentive	0.85	5.85
5- Performance Feedback	0.69	5.40

Output of LISREL of tables (1 and 2) show that the measuring model of emotional intelligence and productivity variables is appropriate. The measure of chi-square and RMSE were appropriate; the ratio of Chi-square to the degree of freedom in all models is less than three and their GFI and AGFA are over 90 percent. Allt-values are also significant. Collectively, these results indicate that the survey questionnaire has high reliability and validity. Suitable amounts for each of the above-mentioned indicators are presented in table above. The research hypothesis suggesting emotional intelligence impact on efficiency has been verified.

Conclusion

Research latent variables are emotional intelligence and productivity. Each of these structures contains a number of visible variables. Measuring model of emotional intelligence construct which consists of following components: emotional self-awareness, Self Regard, responsibility, flexibility, problem solving and stress tolerance has been confirmed. Standard and significant coefficients for each of these visible variables are shown in the table 1. All coefficients are significant and outside the range of and- 1.96 and 1.96 and they are appropriate. Furthermore, the measuring model for the productibility that includes visible variables of employees ability to work, clarity of job, support, employee incentive and performance feedback were also confirmed. Standard and significant coefficients for each of the visible variables are shown in the figure 2. The research structural model involving measurement models and research Causality hypothesis was confirmed. Research Causality hypothesis suggesting emotional impact on productivity ($r = 0.72$) was approved. The study results are consistent with the results of studies carried out by Ferris, Rebecca Rabrham, Kalas Soder, Victor & Deloitte, Cros and Davis regarding the relationship between emotional intelligence and its dimensions and productivity (Wiskinz, 2005; Robbins, 2007; Tracy, 2006).

Studies have shown that in the future leaders win the competition, who can effectively communicate with their human resources and as regards this issue, emotional intelligence is one of the factors that can play an important role in relations between directors and organizations members. According to Goleman (1998) it is a prerequisite in any organization. Recently, some scientists have found that emotional intelligence is more important than intelligence quotient (IQ) for a manager and a leader. Having a high emotional intelligence is more important especially in the higher levels of organizational hierarchy. Managers and senior of the organization must make crucial decisions on issues such as merger, organization financing, recruiting policies and organizational strategies. Today, emotional intelligence is defined as a kind of intelligence that includes both detailed understanding of one's own emotions and accurate interpretation of the emotional states of others. Emotional intelligence evaluates emotional assessment of an individual; that's to say how much of his emotions and feelings is known to him, and how he handles them. Notable point regarding emotional intelligence abilities is that they are not innate abilities so they can be taught. According to the results obtained by this study we can define that the ability to use emotions to facilitate problem-solving or generate excitement plays an important role in the productivity of the group. So, organizations must make their own ideologies in order to be able to remain active into day competitive turbulent environment and they must equipped themselves with new Innovative thinking of Business and continually improve themselves. The leadership of these organizations is very sensitive and complex; and the sensitivity becomes twice intensive when leader is faced with adaptive changes that are very different from the technical changes. Technical problems can be solved through technical knowledge and common problem-solving processes, while adaptive problems

Research Article

are different. The leader of an organization requires special features in order to adapt to changes and to survive and thrive in the new business environment, while generally managers encounter with many problems to respond to them. In this context, one of the most important components of personality that can help leaders and managers is emotional intelligence. Given that emotional intelligence is the ability to use our emotions and that of others in individual and group behavior in order to achieve maximum results with maximum satisfaction; therefore, the combination of management expertise and abilities of emotional intelligence to manage can be effective and useful in leading the people to achieve their goals. Therefore, human resource management in organizations should make more efforts to promote human emotional skills of their staff. Addressing this problem is required in all sectors and processes of human resources including selection and recruitment, man power planning and designing various training courses

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Research Article

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