

Review of the Relationship of Gardner's Multiple Intelligences and Parsons' Organizational Effectiveness Dimensions with the Mediatory Role of Organizational Trust Case Study of Branches of Keshavarzi Bank of Lorestan Province

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Abstract: Scientists believe that behavioral sciences of rationality are not the only stimuli of human behavior. In fact, human intelligence is influenced by human emotions and humans use their intelligences only to reach or to avoid emotional consequences such as trust, justice, fear, etc. The present study has reviewed the relationship of Gardner's multiple intelligences and Parsons' organizational effectiveness dimensions with the mediatory role of organizational trust in branches of Keshavarzi Bank of Lorestan Province. The research method is a descriptive-correlative method and in terms of purpose, it is an applicable research. The statistical population of this research is composed of all of the employees of Keshavarzi Bank of Lorestan Province which is 372 persons in total. The sample volume was determined to be 196 testees according to the Cochran formula. Data gathering has been done by using researcher's questionnaire and its validity has also been confirmed by the supervising professor. In order to review the normality of the gathered data, the Kolmogorov Smirnov test has been used alongside with the SPSS Software version 22. And in order to test the research hypotheses and its path analysis model. Structural equation modeling method has been used by using the EQS 6.1 Software. Research findings showed that there is a significant and positive relationship between intelligence and organization's effectiveness. Therefore, intelligence has a positive causal impact on organization's effectiveness. According to the findings of the model, intelligence has influenced organization's effectiveness with a coefficient of 0.77 and organizational trust has influenced intelligence with a coefficient of 1.01 and its direct impact on organizational effectiveness is 0.87.

Key words: Multiple intelligences, Gardner, organization's effectiveness, organizational trust, emotions

INTRODUCTION

Statement of the issue: Intelligence is kind of cognitive ability to beware us of the world and solving various issues and general ability to reason to program to make decisions and to learn. Also, intelligence leads to compliance with the environment for using proper skills (Aghayar, 2007). In Gardner's opinion, intelligence is the capacity of solving issues, compatibility with culture and emphasis on awareness. Intelligent organizations usually design various systems to monitor changes in the environment and be in line with stylistic changes and using incentive laws (Golman, 2004).

Generally, it can be stated that the most proper area for comparing multiple intelligences and logical intelligence is the work environment because the person in addition to achieving scientific capabilities due to logical intelligence, uses his or her other capabilities as

well. Thus, in the area of development of human resources in the organizations, the notion of multiple intelligences has been used so that other individual skills would be considered in addition to specialized capabilities (Ali and Nona, 2005).

Emergence of social organizations and their daily increasing are two of the obvious features of human civilization. On one hand, variety is considered to be one of the clear features in today's world of management. It is clear that each organization, in order to achieve its purposes, needs some intelligent and capable managers who would lead and conduct the organization towards a specific and certain purpose by using his or her multiple intelligences in addition to mobilizing the facilities (Azar and Reza, 2012). Given the importance of intelligence, especially multiple intelligences for the organization employees in creating creative thinking, discovering patterns, analyzing problems and positive

and direct impacts of this intelligent on the performance of employees and on the other hand, since intelligence is one of the best predictors in professional performance which is influenced by the emotional feelings, the necessity of their familiarity with this notion is more and more required.

Theoretical principles of the research: Alfred Binet (1857-1911), the French psychology and developer of the first intelligence test, defines intelligence as the person's ability to judgment, perception and reasoning. And also Hamidi Zadeh believes intelligence is the demonstration of humans' special talents and states that the rates of subtlety, wisdom, understanding and analysis of man are measured based on intelligence. Wisdom is demonstrated through intelligence and the more wisdom is enriched, the level of wisdom, knowledge and prudence will be promoted. Although a unique and unified intelligence can't be found in the individuals but a wide spectrum of it can be seen which has both an independent aspect and they are distinguished from one another as well. Then, Howard Gardner in 1983 presented a new definition of intelligence and referred to at least seven major intelligences this theory opened a new window to the companions of education. He believes that intelligence is not a measurable single quantity; he has also added the 8th and 9th intelligence to it in the year 1999. In Gardner's opinion, all people have all intelligences to different extents and they use all intelligences in the process of learning as a supplement. Types of multiple intelligences are: verbal/linguistic intelligence, logical/mathematical intelligence, visual/spatial intelligence, kinesthetic/body intelligence, rhythmic/musical intelligence, interpersonal/intrapersonal intelligence, naturalistic intelligence and existential intelligence. According to Gardner's theory in 1983 in order for all of the abilities and talents of a person to be achieved, not only his or her intelligence coefficient shall be reviewed but also other types of his or her intelligences such as musical, interpersonal, visual/spatial, and verbal/linguistic intelligences shall also be considered. The basis of the Gardner's theory of multiple intelligences is based on this concept that there are different rational capabilities in man. In Gardner's opinion, intelligence was chosen as a psychological existential potential for solving issues or repairing products which are at least in one of the fields in this research; multiple intelligence was selected in eight dimensions based on Howard Gardner's theory of Harvard University: in 1983, Howard Gardner stated that each person has at least seven various intelligences as expressed below (Christison, 1998).

Verbal intelligence: People with high verbal intelligences can effectively use words, both in speaking and writing. These people can use the language for various applications including convincing someone to do something specific, remembering information and talking about the language itself, etc., in an efficient way.

Mathematical-logical intelligence: The ability to use numbers effectively and the ability of strong reasoning are some signs of logical intelligence. People with high mathematical intelligence are strong in classification, inference, generalization and calculation.

Spatial-visual intelligence: This intelligence makes people sensitive about shape, space, color and line. Imagining images is easy for this type of people.

Kinesthetic intelligence: This group of intelligent people uses body movements for expressing their ideas and emotions. This ability includes physical skills, such as coordination, flexibility, speed, balance, etc. Most actors, pantomime artists, sport champions, sculptors, mechanics and surgeons have this type of intelligence.

Musical intelligence: People with this intelligence are highly sensitive of rhythm and music. These people have a good understanding of music (same).

Social (intrapersonal) intelligence: The ability to understand mood and behavior, emotions, incentives and purposes of others demonstrate this type of intelligence. Strong social intelligence leads people to deal with others realistically (same).

Interpersonal intelligence: This intelligence includes having an accurate image of oneself and being aware of individual tendencies, purposes and moods (same).

Naturalistic intelligence: This intelligence includes the ability of people to perceive and organize models in nature and the natural environment (same).

Organizational effectiveness: In today's age, effectiveness is considered to be an unavoidable necessity in each organization. Among these, effective human force is one of the most important criteria in reaching this. Changing the approach to human resources and considering it as an important issue is caused by the change of the approach to traditional management of human resources to its strategic management in such way that in the recent approach, the strategic role played by the human resources in increasing the efficiency of the

organization is emphasized. Theorizers have defined organizational effectiveness as the extent to which a goal is achieved. Peter Draker believes that organizational effectiveness is doing a work accurately and considers it as the key to organization's success. Robins has paid attention to both tools and equipments (process) and the obtained results in defining the organizational effectiveness. In order to measure the organizational effectiveness there is no simple, easy and guaranteed scale thus we refer to a number of important approaches:

Purpose realization approach: This approach is the most common criterion of evaluating the organizational effectiveness and it mainly defines organizational effectiveness as achieving one or multiple special purposes.

Source system approach: In this approach, the organization shall be able to acquire input data.

Strategic approach of beneficiaries' satisfaction: The purpose of this approach of organizational effectiveness is to meet the demands of the beneficiaries who are not present in the organization's environment, so that it would achieve the required supports to survive and remain.

Approach of comparative values: This approach presents a combined framework. The basic and main criteria and subjects of this approach the value we assign and use for evaluation of organizational effectiveness (such as rate of investment's return, market's share, innovation in products and job safety) which depends on who we are, what we present and which advantage is important to us.

Approach of internal process: Some scholars have named this criterion of organizational effectiveness as the approach of "healthy systems". When it is said that an organization is a healthy system it means that information smoothly flows in it and commitment and loyalty, satisfaction of job and trust exists between its employees.

Parsons' organizational effectiveness model: Parsons' model has been specified with the abbreviation AGIL and includes four features:

- Accordance which is education of sufficient sources
- Achieving a goal which is aiming (and implementing it)
- Coherence which is creating and maintain cooperation and coordination between system's secondary units and

- Continuation and maintenance of cultural patterns which is creating, maintaining and transforming special values and cultures (Ali and Nona, 2005)

Organizational trust: As it was expressed at the beginning of this study when people's intelligence for achieving or avoiding the consequences of a specific emotion it makes the person's ability to achieve organization's purposes variable. Organizational trust is among concepts which are influenced by the person's understanding of it how he or she deals with discovering models and analyzing problems.

This concept has been reviewed and considered by the scholars of various scientific majors. In fact, researchers in these fields have reviewed a similar subject of various approaches, each of which has focused on a special aspect of the concept of trust which itself has led to presentation of an incomplete definition of the structure of trust.

Mishra (1996) defines organizational trust as a one-sided tendency towards vulnerability against the other party based on this expectation or belief that the other party is trustworthy, open and confident.

Allonen in 2008 believes that organizational trust is people's positive expectations about capability, merit, confidence, kindness of the members of the organization and also institutional trust inside an organization. There are three types of trust in the organization which are:

- Horizontal trust: it refers to trust between employees
- Vertical trust: it refers to trust between inferiors and superiors
- Hidden trust: it refers to the trust between the members of the organization to methods, strategies and perspective of the organization, business qualifications and its technology, structures and fair processes and policies of human resources of the organization (Mishra, 1996)

Multiple intelligence and variety of business were presented by Joey Nartin in the form of a project in the Catholic University of Australia with a number of participating students in the research including 97 students in 2003. In this research, the importance and role of Gardner's multiple intelligences theory has been measured from the dimension of its profitability which is whether multiple intelligence can be a structure in determination of variety of students' business knowledge or not? The results of the research clearly showed that reviewing students multiple intelligences can be a valid source on recognition of the formula of their multiple intelligences. The results of this review and the formula of their multiple intelligences can be a useable source for the research beneficiaries (Moafian, 2008).

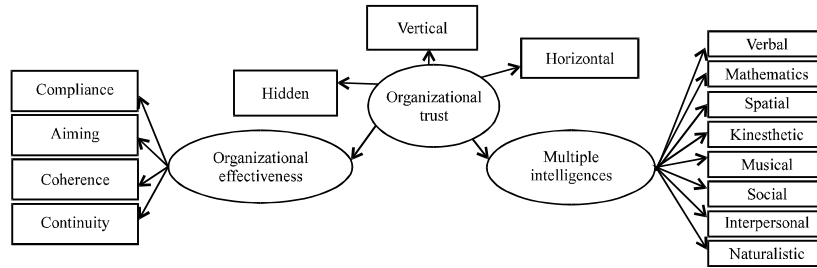


Fig. 1: The conceptual model of the research

Table 1: Rate of Cronbach alpha

Variable	Verbal intelligence	Logical intelligence	Spatial intelligence	Kinesthetic intelligence	Intrapersonal intelligence	Interpersonal intelligence	Naturalistic intelligence	Compliance purpose	Achieving purpose	Maintenance Unity of the model	Horizontal	Vertical	Hidden	Variable	
Alpha	0.659	0.871	0.693	0.901	0.826	0.648	0.511	0.760	0.593	0.845	0.834	0.684	0.506	0.651	0.726

Reviewing managers’ multiple intelligences with organizational effectiveness in the Gas Corporate of East Azerbaijan province done by Rahimi, Norouzi and Sari-Alghalam. For this, multiple intelligences has been defined based on Howard Gardner’s theory and organizational effectiveness is defined according to 30 criteria of Stephen Robins and in this respect, one primary and six secondary hypotheses have been arranged. The obtained results indicate that:

Managers’ multiple intelligences have a relationship with the organizational effectiveness of the Gas Corporate of the East Azerbaijan Province.

The impact of multiple intelligences was reviewed in the enhancement of linguistic structure and using it in the text by Saeedi in the form of Master’s thesis in the year 2003. The study showed that firstly, using methods of multiple intelligences will lead to the enhancement of their ability in learning and also using linguistic structure in the text, educations based on multiple intelligences have a positive role in the development of people’s abilities in the field of intelligence especially logical intelligence and secondly, using multiple intelligences increases people’s interest in learning and teaching. In a research done by Shabani Bahar with the title of prediction of organizational effectiveness based on the emotional intelligence of the sport managers of Lorestan Province, the results showed that a direct and significant relationship was seen between the components of self-management and management of the relationships of emotional intelligence with organizational effectiveness of the sport managers of Lorestan Province. The results also showed that the components of self-management and management of the relationships of emotional intelligence have the ability to predict organizational effectiveness.

Research hypotheses: By considering the mentioned introduction and reviewing the research background, the following hypotheses have been considered in order to do the research:

- A significant relationship is seen between multiple intelligences and organization’s effectiveness
- Employees’ understanding of the presence of trust in the organization has a significant impact on the usage of intelligence in the advancement of the organization
- A significant relationship is seen between organizational trust and organization’s effectiveness (Fig. 1)

MATERIALS AND METHODS

This research is a descriptive-correlative one in terms of nature and method and it is applicable in terms of purpose. The statistical population of this research is composed of all of the employees of Keshavarzi Bank of Lorestan province which is 372 persons in total. The sample volume was determined to be 196 testees according to the Cochran formula. The respondents had been selected among the employees of Keshavarzi Bank of Lorestan Province randomly. In order to achieve confidence, 200 questionnaires were distributed. The tools for gathering the data of the research include the questionnaire made by the researcher. The research hypothesis and its path analysis model have been tested based on structural modeling method by using the EQS.6.1 Software. In order to review the reliability of the questionnaire, the Cronbach alpha is used. The results show that since the rate of Cronbach alpha is higher than 0.7 thus the questionnaire has a proper liability (Table 1).

RESULTS AND DISCUSSION

The demographic specifications of the respondents to the questionnaire as follows in Table 2. In order to review and test the normality of distribution of data, the Kolmogorov Smirnov test has been used which is defined as follows:

- H_0 : data distribution is normal
- H_1 : data distribution is not normal

And the obtained results have been presented in Table 3. According to the Table 3, the obtained significance levels are >0.05 in most components except for the hidden dimension of the organizational trust; therefore with a 98% confidence it can be said that the research data follows the normality features and the parametric tests can be used for analyzing the data.

In the first step, in order to evaluate the rate of correlation of the indexes of the research, the Pearson correlation coefficient was used.

As it is seen in Table 4 and 5, the indexes of the rate of compliance or goodness of the fitting, all of them are in a relatively acceptable level.

In the second step, the conceptual model path of the research has been analyzed with the structural equations method by using the AMOS version 22 Software.

As it is seen in Fig. 2, the logical and mathematical intelligence has the most factor load. As it is seen in Fig. 3, in organization's effectiveness, the component of achieving the goal has the most factor load.

Table 2: Demographic specifications

Characteristics	No. of respondents
Gender	
Woman	32
Man	164
Work history	
<5 years	28
Between 5-10 years	43
Between 10-15 years	68
Between 15-20 years	30
>20 years	27
Marriage status	
Single	21
Married	175
Academic degree	
Diploma	78
Associated	47
BA	54
Masters	16
PhD	1

Table 3: The results of the normality test of data distribution

Variable	Verbal intelligence	Logical intelligence	Spatial intelligence	Kinesthetic intelligence	Intrapersonal intelligence	Interpersonal intelligence	Naturalistic intelligence	Compliance	Achieving purpose	Unity of the model	Maintenance	Horizontal	Vertical	Hidden	Variable
K-S	7	7.00	2.0	1.000	2.000	2.00	5.000	7.000	7.000	7.000	5.00	6.000	5.000	7.000	2.00
Sig.	0.0534	0.64	0.6	0.316	0.202	0.09	0.120	0.222	0.521	0.281	0.32	0.163	0.121	0.339	0.43

Table 4: Results of measuring the goodness of fitting of the research models

Indexes	H1	H2	H3	H4	H5	H6	H7	H8	SAZ1	SAZ2	SAZ3	SAZ4	ET1	ET2	ET3
H1	1														
H2	0.478	1													
H3	0.476	0.483	1												
H4	0.020	0.019	0.654	1											
H5	-1.94	-0.200	0.130	1.156	1										
H6	0.003	0.013	0.007	0.026	0.002	1									
H7	-0.001	-0.009	-0.019	-0.018	-0.003	0.719	1								
H8	-0.085	-0.069	-0.004	-0.071	-0.022	0.023	1.4	1							
SAZ1	0.010	0.001	0.024	0.052	-0.003	0.247	0.403	2.087	1						
SAZ2	0.168	0.179	-0.060	0.086	-0.038	-0.091	0.389	0.034	2.036	1					
SAZ3	0.012	-0.001	-0.139	-0.067	-0.086	0.003	0.018	0.039	0.290	1.472	1				
SAZ4	0.070	0.064	0.038	-0.028	0.045	-0.059	0.057	-1.63	-0.202	-0.193	1.45	1			
ET1	-0.003	0.004	-0.011	-0.026	-0.019	0.716	0.039	0.239	0.079	-0.010	-0.65	0.724	1		
ET2	-0.005	0.002	-0.119	-0.055	-0.117	-0.046	0.085	0.070	0.177	-0.049	0.063	0.039	1.001	1	
ET3	0.009	0.008	0.636	0.123	0.636	-0.014	-0.014	0.010	-0.068	0.113	0.048	-0.015	-0.112	0.638	1

As it is seen in Fig. 4, in organizational trust, the component of vertical trust has the most factor load. Data analysis based on structural equations (Fig. 5).

In reviewing the first hypothesis, given the results of the data analysis based on the structural model there is a

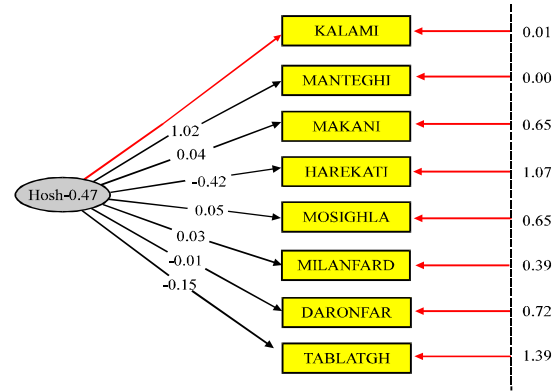


Fig. 2: The logical and mathematical

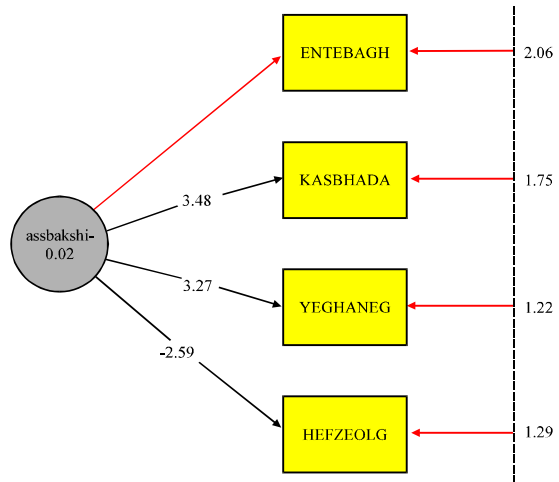


Fig. 3: The component of achieving the goal

positive and significant relationship between intelligence and organization's effectiveness. Therefore, intelligence has a positive causal impact on organization's effectiveness. According to the findings of the model, intelligence influences organization's effectiveness with a coefficient of 0.77 which is in compliance with the results obtained by Joey Nartin and Gholam Reza Rahimi.

Therefore, in order to develop types of Gardner's multiple intelligences, some proper educational and informational attempts including the books and journals of management and gatherings shall be done because by developing the multiple intelligences of the employees their skills increases in numerous domains and the enhancement of the skills is required in the present age.

In reviewing the second hypothesis, given the results of the data analysis based on the structural model, trusting organization has influenced intelligence with a coefficient of 1.01. Given the obtained results indicating that there is a positive relationship between multiple intelligences and organizational trust it can be expected that employees with higher organizational trust will be successful in developing multiple intelligences and through this it increases the level of organizational performance in a positive and growing respect. Increasing organizational trust increases the level of employees' satisfaction. The general belief is that employees with higher levels of satisfaction will have higher efficiency and usage.

And in reviewing the third hypothesis, given the results of data analysis based on the structural model, the impact of organizational trust on organization's effectiveness is direct with a coefficient of 0.87. The findings of the research are in compliance with the

previous researches such as Gholam Reza Shabani Bahar and Saeedi which indicate that considering multiple intelligences is an effective step in using the working force in the organization better. The summary of the results of the hypothesis and path coefficients have been shown in Table 6.

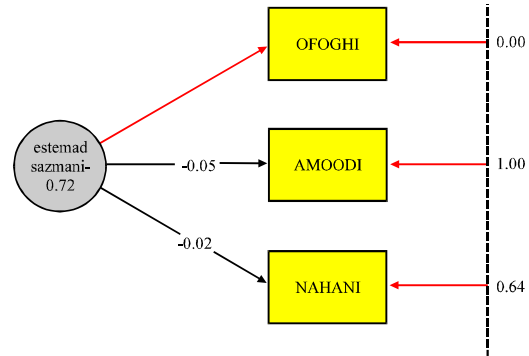


Fig. 4: The component of vertical trust

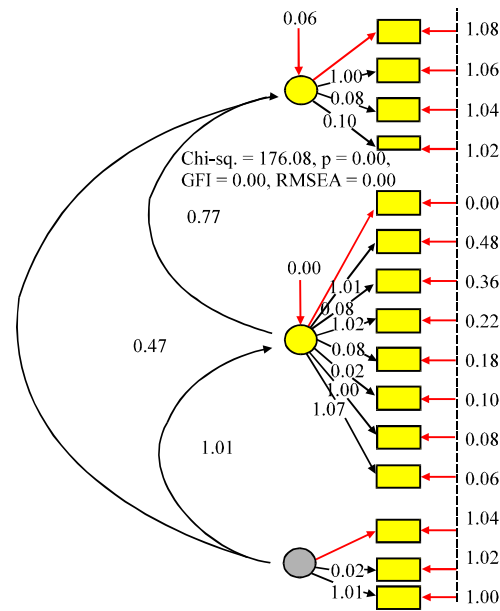


Fig. 5: Structural model of the research

Table 5: Review of the model of multiple intelligences

Fitting index	Rate
χ^2	521
RMR	0.0971
GFI	0.834
AGFI	0.772
RMSEA	0.103
NFI	0.857
CFI	0.921

Table 6: Summary of the results of the hypothesis and path coefficients

Hypothesis	Relationship	Standard coefficient	Confirmation or rejection of the hypothesis
1	A significant relationship is seen between multiple intelligences and organization's effectiveness	0.77	Confirmation of the hypothesis
2	Employees' understanding of the resence of trust in the organization has a significant impact on yhe usage of intelligence in the advancement of the organization	1.01	Confirmation of the hypothesis
3	A significant relationship is seen between organizational trust and organization's effectiveness	0.87	Confirmation of the hypothesis

CONCLUSION

The present study reviews the mediatory role of organizational trust in the relationship between Gardner's multiple intelligences and organizational effectiveness and the other mediatory variables such as employees' satisfaction can be reviewed.

RECOMMENDATIONS

Given the discussions and obtained results of issues, the following items can be recommended: in association with the first hypothesis of the research, since a significant relationship is seen between multiple intelligences and organization's effectiveness. Based on this it is recommended that: managers can play a crucial role through policies of reinforcement of intelligence in the employees for improving connections, interactions and ultimately effectiveness of the organization.

Given the differences of using each of the multiple intelligences shall be considered by the employees, proportion between the job and the employee.

Given the relationship between organizational trust and organization's trust by creating clarity in informing and promoting people's trust, purposes and organization's activities can be achieved for increasing communicative and cognitive capital of the employees.

Also in order to increase organization's effectiveness, some strategies shall be considered which lead to organizational justice, satisfaction and trust. In

this respect, determination of realistic purposes, the ways of achieving it creation of incentive and awareness of each employees of their role is proper in achieving the organizational purposes.

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