



Designing Thermal Map of Organizational Intelligence on Managerial Styles of Managers (Green Space Organization of Tehran)

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Abstract:

Organizational intelligence is regarded as important and necessary strategy for maintaining competitive advantage of developed organizations and industries also as necessity for obtaining to more productivity in small and medium size enterprises. In order to improve organization management, it is necessary for attention to organizational intelligence. On this basis, the present research examines the influence of organizational intelligence on managerial styles of managers of green space organization of Tehran and 102 managers of green space organization of Tehran were selected by simple random method. The present research from viewpoint of data collection is regarded as non-empirical (descriptive) research and research data were collected by survey that is mixture of 2 scales by using questionnaire designed by researcher in relation to managerial styles and organizational intelligence questionnaire by Karl Albrecht. Results of research data analysis shows that by benefiting from techniques of descriptive statistics and structural equation model, the organizational intelligence of managers were at relatively suitable level and their managerial styles were at acceptable level; moreover, organizational intelligence with path coefficient of 0.85 is regarded as suitable variable for anticipating styles of organizational management and describes 73% changes of variance of variable and finally some recommendations based on research findings were offered.

Key Words: Green Space, Managerial Styles, Organizational Intelligence, Structural Model, Tehran Province

Introduction

In the process of globalization the organization shall be ready for adapting with quick environmental changes and each organization shall cope itself with diverse demands and changes. Studies show that in the future competitions those managers are

successful those are able to effectively communicate with human resources department (Schmidt 2010). In the beginning of third millennium and in compliance with evolutions created due to growth of science and knowledge the ever-growing attempt of progressing organizations in the competition world is to

find specific strategy. Thus, recognizing background factors for management may create suitable infrastructures for its improvement. In this way, organizational intelligence may be regarded as a type of cognitive intelligence that is associated with emotional intelligence and theoretically, organizational intelligence may assist managers through several methods (Marjani and Soheilipour 2012). Organizational intelligence is regarded as new and important topic in the field of organizational behavior and knowledge and the concept of organizational intelligence is very important; since, it consists of another paradigm that is organizational learning (Babbar 2017). Improving organizational intelligence leads to more arrangement of plans and programs, improving decision making and innovation, improving working performance and increasing long-term goals of organization (Ghahfarokhi and Zamanian 2013). During recent years and in compliance with evolutions raised due to growth of knowledge and science, there is ever-growing attempt of progressive organizations in competition world for having specific strategy for increasing effectiveness of their organization. Organizational intelligence refers to set of tools and techniques that assist large amount of data and significant information for supporting from decision making and improving performance of organization and also it guarantees long-term advantage of organization and improves its performance. In recent decade, organizational intelligence acts as driving force for improving effectiveness of organization (Ramakrishnan

2016). According to importance and status of agriculture for obtaining to development as infrastructural sector; the agricultural sector from one hand due to supplying food for society and due to supplying raw materials required for related industries, maintaining environment, having share at national gross production and employment of country, is regarded as most important economic sector. Meanwhile, another organization that plays key role on developing agriculture is green space organization; thus, according to important status of this organization as responsible for green space, maintaining plants, environmental health, studying and preparing plan for evaluating status of intelligence of this organization is necessary for being more successful for qualitative and quantitative improvement of green space at present and future of Tehran and finally guaranteeing maintaining basic resources, principles of sustainable development. According to aforesaid issues, performing this research is very important for directors and employees; since organizational intelligence and managerial styles are 2 important variables that play key role on performance of employees and are definitely effective on performance of employees. Lefter et al 2018 has offered dimensions of organizational intelligence among Romanian companies and the main goal of this research is success of employees of Romanian companies in compliance with 7 organizational intelligence aspects of Karl Albrecht. Results showed that only 13% of employees of medium and large enterprises were familiar with organizational



intelligence and by this analysis, the obtained data showed that level of organizational intelligence was at medium and higher level. Studies of Taboli and Bahmanyari 2017 showed that educating organizational intelligence is an approach that improves creativity of employees and also growth and development of organization leads to improving curiosity, compatibility and flexibility of responsiveness in organizations. Educating organizational intelligence improves ability of organization for creating knowledge with using strategy. Marcos and et al 2017 studied the relationship between organizational intelligence and management in different systems and concluded that organizational behavior is directed by intelligence and obtaining knowledge (Thannhuber et al 2017). Oveisit et al 2015 studied the relationship between organizational intelligence with innovation management and occupational development in organization. The statistical society of this research is directors of middle schools in Zahedan and results showed that organizational intelligence has significant relationship with innovation management and occupational development; moreover, application of knowledge and attitude toward change in the way of innovative activities and recommendations leads to improving organizational knowledge and performance. Results of research by Eftekhari and Allahyari in the field of organizational intelligence in Agriculture Department of Gilan showed that strategic methods, motivation, interest for working, knowledge, organizational performance,

suitable structure and courage are among factors that influence on organizational intelligence and courage that consists of work quality, interest in job, honor in job, attempt for improving performance, occupational opportunities, attitude of managers in relation to job and model of organizational obligation is regarded as highest variance in organizational intelligence. In research with title of studying organizational intelligence that was performed on Sep 2003 by Karl Albrecht among Australian managers based on theoretical framework, finally it was concluded that Australian managers by being aware of their organizational intelligence obtain more understanding and awareness from their organization and also this research had new viewpoint toward organization. Karl Albrecht (2003) has stated that success of organization is depending on having smart people, smart teams and smart organization. Results of research by Taghvaei and Yazdi and Niazari (2010) showed that there is positive significant relationship between foresightedness with organizational intelligence, organizational creativity and organizational excellence and the statistical volume sample was selected among 188 teachers of Education Department of Fars province. Analyzing structural equations showed that variable of knowledge management has positive significant effect on variable of organizational entrepreneurship at sig level of 0.05. Shams Morkani and et al 2014 with the goal of studying role of organizational intelligence on organizational performance of managers

of high school of 19 districts of Tehran was performed by selecting 999 managers of high school by cluster sampling method and the results of questionnaire designed by researcher in relation to organizational performance and organizational intelligence by Karl Albrecht showed that organizational intelligence of managers of high school of Tehran is at relatively suitable and their organizational performance is at suitable level. In fact, Karl Albrecht believes that organizational intelligence is capacity of enterprise for applying all brain workforces and concentrating on mission and also organizational intelligence and capacity of organization for stimulating mental ability of organization and concentrating this ability for obtaining to organizational mission (Karl Albrecht 2003).

Research Methodology:

The present research from viewpoint of goal is regarded as applied research and from viewpoint of data collection is regarded as descriptive research (non-empirical) and also field research and from viewpoint of relationship between its variables is regarded

as causative research. The research methodology is survey and the statistical society is all managers of green space of Tehran in which 102 managers were calculated as statistical society by using Cochran formula and in order to determine volume sample, 102 persons were selected by simple random methods. In order to collect research data, it was benefit from survey tool that is mixture of 2 scales of questionnaire designed by researcher in relation to managerial style and organizational intelligence questionnaire designed by Karl Albrecht. The questionnaire of organizational intelligence designed by Karl Albrecht 2003 consists of 7 fields of organizational intelligence including: Insight, common destiny, change orientation, morale, unity and agreement, application of knowledge and pressure of performance and consists of 49 forms (according to decision of scholars, 5 forms were eliminated). In this questionnaire, it was demanded from respondents to announce their comment within 5-point Likert scale (completely agree, disagree, indifferent, agree, and completely agree).



Table 1. Distributing questions of questionnaire about organizational intelligence

Dimensions of Organizational Intelligence	No of Questions
Insight	6
Common destiny	7
Change orientation	6
Morale	6
Unity and agreement	6
Application of knowledge	6
Pressure on performance	7

Management Styles Questionnaire

This questionnaire is designed by Rensis Likert 1967 that evaluates 26 forms (according to comment of scholars, one form

was eliminated) and demands from respondents to announce their organizational intelligence based on 5 scales (completely agree, disagree, indifferent, agree, completely agree).

Table 2. Distributing questions of questionnaire for managerial styles

Dimensions of Organizational Intelligence	No of Questions
Dictatorship	8
Benevolence	5
Counseling	4
Partnership	8

In order to determine reliability of questionnaires, 30 questionnaires were distributed among statistical society and Alpha Cronbach coefficient for organizational intelligence was 0.80 and for managerial style was 0.78 that shows good level of reliability of both questionnaires. In order to evaluate content validity of questionnaires, it was benefit from comments of specialists, university professors and experts and in this stage, upon being sure of obtaining decisions of aforesaid persons the questionnaire was analyzed by SPSS software and benefiting average, variance and standard deviation and

also for inferential statistics, it was benefit from LISREL software, structural equations and CIMminer.com and Heat Map

Findings:

Results showed that the age of statistical society was between 22 to 54 years (average 37.4124 and standard deviation of 7.455) record of service of managers was between 1 to 40 years (average 11.1042 and standard deviation of 7.1236) and educational of respondents was bachelor's degree (64%) and only 1% had associate degree and total sum of male 66 persons (67.3%) had maximum frequency

Research Operational Model

Modeling method of structural equations with analyzing confirmation path describes causative relations between hidden variables and in structural model the relations between variable is Exogenous and endogenous variables i.e. the structural equation of

research describes the relation between endogenous variables (organizational intelligence) and dependent Exogenous variables (managerial styles) at statistical society consisting of visible and hidden variables. Table 3 offers more description about Exogenous and endogenous variables of research structural equations.

Table 3. Variables for research structural model (Studying relationship between organizational intelligence of managers and managerial styles)

Organizational Intelligence of Managers							
Exogenous hidden variables	Insight	Destiny	Variable	Morale	Trust	Knowledge	Practice
Exogenous visible variables	(BINSH)	(SARN)	(TAGHI)	(ROHH)	(ETMAD)	(DANSH)	(AMAL)
Endogenous hidden variables	Managem nt styles						
Visible variables	(ESTB)		(KHIR)	(MASH)		(MOSH)	

According to standard model offered it is possible to announce that in outer research model there is relationship between main factors (hidden variables) and visible variables with factor load and factor load is between zero and one and a factor load shall be more than 0.3. According to research model in standard mode, the factor load observed for most of factors is more than 0.3

that shows logical correlation between hidden variables (dimensions of main structures) with visible variables. The output of software shows suitable fitting type of structural model and ratio of X^2 to df is smaller than 3 (1.92); thus, level of X^2 (80.34) is low and suitable and confirms excellent and suitable fitting for structural model of research.

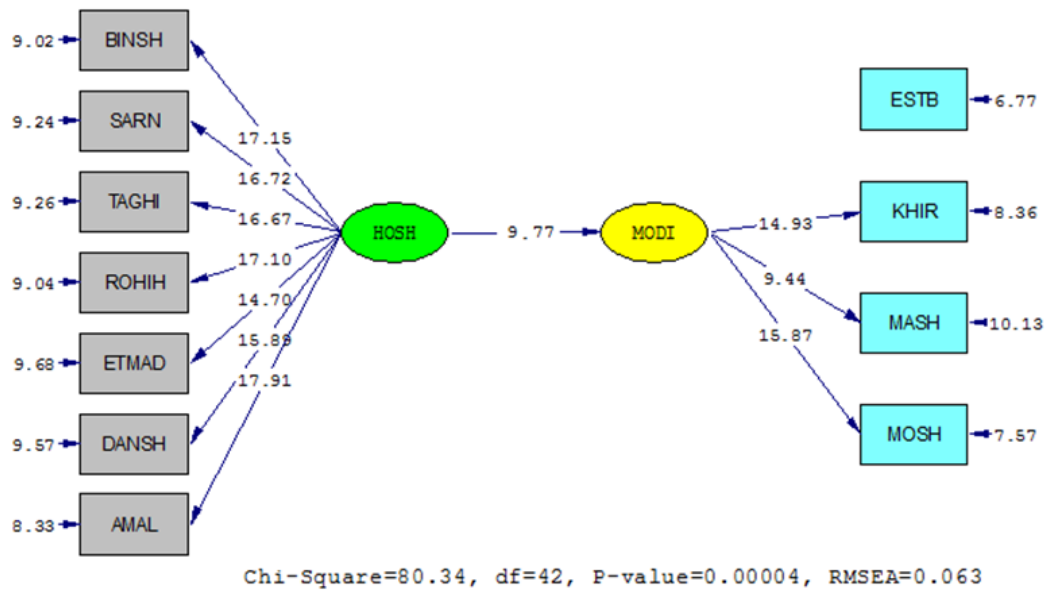


Figure 1. Significant part of coefficients

Figure 1 shows significant part of coefficients and obtained parameters for research structural model (effect of organizational intelligence on managerial style in statistical society) and if the significant number is larger than 1.96 or smaller than -1.96 the available relationship

in this research is significant. The offered figure shows that all relations are significant and the research hypothesis is confirmed; moreover, the fitting model indices in the research structure in table 4 reveals that model has suitable fitting.

Table 4. Fitting indicators for research structural model (amended model)

Grouping Indices	Indicators	Amount of Index	Acceptable Level	Status
Indicator of absolute fitting	GFI	0.93	More than 0.90	Suitable
	AGFI	0.90	More than 0.90	Suitable
Indicator of adaptive fitting	NNFI	0.98	More than 0.90	Suitable
	NFI	0.97	More than 0.90	Suitable
	IFI	0.98	More than 0.90	Suitable
	CFI	0.98	More than 0.90	Suitable
Indicator of economic fitting	PNFI	0.85	Less than 0.90	Suitable
	RMSEA	0.062	Less than 0.08	Suitable
	X2/df	1.92	Less than 3	Suitable

In fact, in the way of path analysis for confirmation of research model, the main research hypothesis based on causative structure in model is examined and as it is obvious the effect of research model structures on each other is confirmed and as it is inferred from figure 2 and 3, analyzing confirmation path in research in compliance with path coefficients at standard mode and significant number shows that available relations based on theory are extracted and collected data is at significant level i.e.

* There is positive significant relationship between variables of organizational intelligence and managerial styles of people

Studying Heat Map and Relationship between Organizational Intelligence of Managers and Managerial Styles:

By using heat map and apart from type of organization and activity, it is possible to discriminate strong and weak points in people and teams and also make decision in relation to changing, stabilizing or improving their work method (Metsalu and Vilo 2015). Heat map is graphic and colorful data that assists us for recognizing behavior of user and through analyzing these data, the product or service is designed for having maximum level of return and efficiency. There are abundant services in web world that assist us for viewing and analyzing heat map including: Inspect let, Mouse Flow, Crazy Egg, Hotjar and here we examine on-line copy of CIM miner software. The obtained data is shown in figure 3 in relation to forms of divided clusters

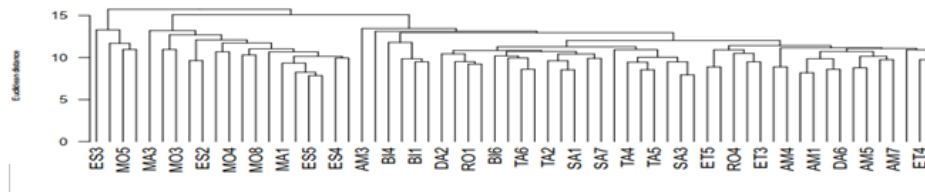


Figure 3. Clustering managerial styles

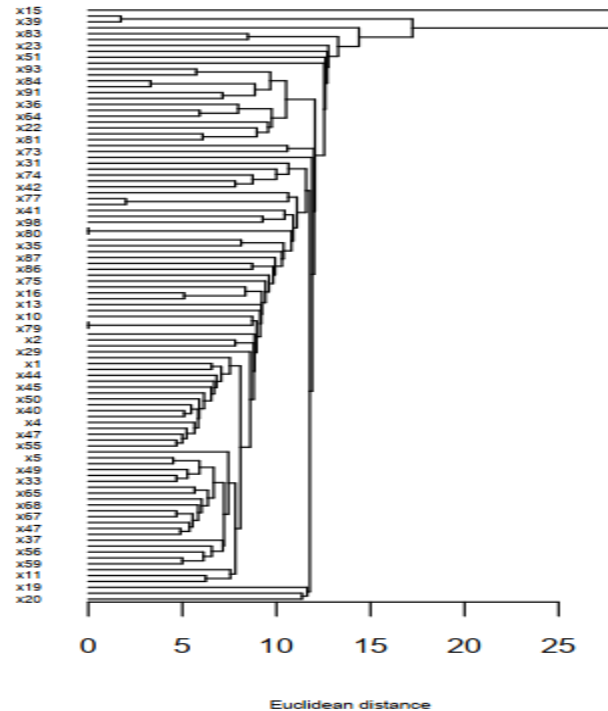


Figure 4.Clustering Organizational Intelligence

Results of this study showed that Order: clustered and Distance Method: Euclidean, Cluster Algorithm: Average Linkage are classes that are extracted with format of social intelligence.

Calculating Clustering for Hierarchy of Rows and Columns:

In order to evaluate similarity of 2 samples, it is necessary for calculating distances or point. The heat map function benefits from Euclidean Distance as pre-assumed distance and complete connection with compression method and changing pre-assumed distance for performance of heat map is not simple task and here we effectively implement clustering plan: Single communication,

complete communication, medium communication, weight, district, centroided and median. By using "quick cluster" the heat map is able to quickly and effectively produce hierarchy clusters than performance of heat map. While interpreting clustering of heat map, it is necessary to attention that objects are merged at cluster tree and each branch is changeable without changing meaning of tree and the user is able to change order method for obtaining more attractive heat map. The heat map is able to arrange rows and columns based on result of hierarchy clustering and then the color is allocated to different social intelligence in specific styles and each choice is balanced for being sure to show that median color is zero. The color strip reveals relationship between colors and amounts that is

automatically created at upper left and different managerial styles is able to write at marginal part of column of heat map and enables users to easily compare their notes with results of heat map and obtain suitable conclusion. Then the samples are divided into several groups with different color at labeling and statistical test is performed for showing that whether writing on marginal part is equal in different distributed groups are not we benefit from ANOVA for writing on marginal part and the results of groups and amounts are returned to user for being used as criterion for selecting styles and

dividing samples. In order to show efficiency and imagination ability of heat map, we benefit from results of survey of social intelligence of managers of green space in different managerial styles and amounts and changes of social intelligence show that several different managerial styles with largest standard deviation and 102 samples were randomly selected for producing heat map. Through selecting styles having large amount of standard deviation, it is possible to mention indicators of social intelligence.

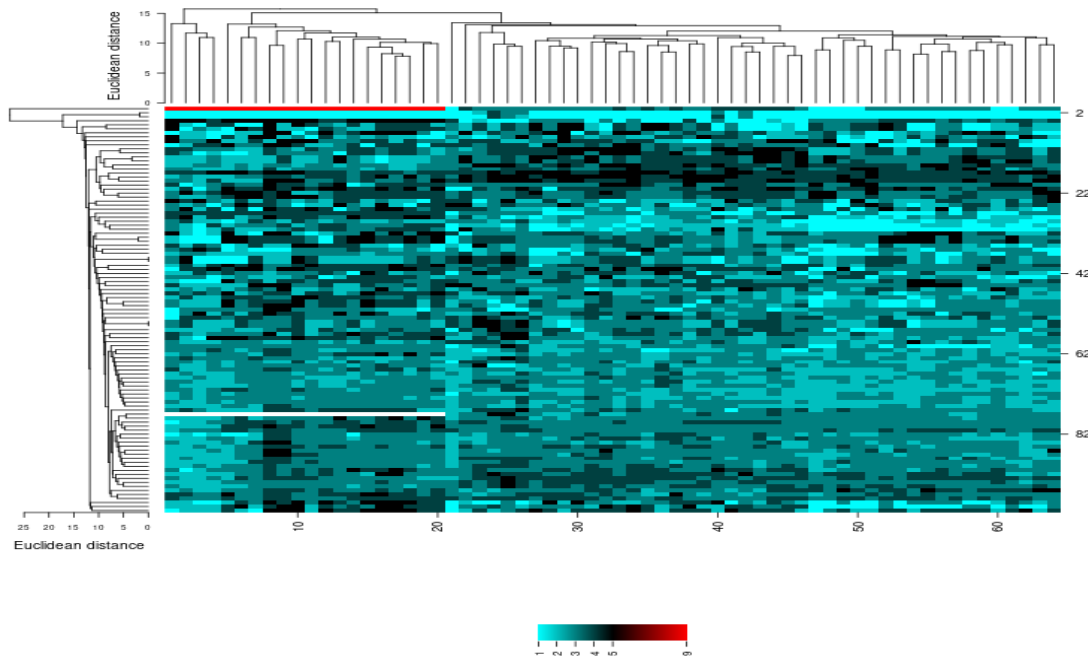


Figure 5. Heat map Organizational Intelligence in managerial styles



Discussion and Conclusion

Nowadays organizations are faced with abundant information and lack of environmental certainty has made organizations including: green space for obtaining sustainable competitive advantage. On the other hand, organizational intelligence is regarded as important and necessary strategy for maintaining competitive advantage of organizations and a necessity for obtaining to more productivity and it seems that improving management of organization depends on attention to different aspects of organizational intelligence. On this basis, the present research intends on studying influence of emotional intelligence on management style of organization for responding to future needs of green space organization of Tehran municipality. Research findings show that emotional intelligence has significant influence on management style of organization i.e. by using emotional intelligence in this organization we observe increase or reduce in level of managerial style among managers. It is to be noted that in today's world and in compliance with this issue that emotional intelligence has important role on controlling and managing emotions, Institutionalization of items of emotional intelligence in the field of idea, responding by organization, productivity, attracting and maintaining human resources is improved. These results are compatible with results of researches performed by Lafter et al 2018 and Taboli and Bahmanyari 2017, Taghvaei

Yazdi and Niaz Azari 2021. On the other hand, organizational intelligence also consists of following items: Insight, common destiny, change orientation, morale, unity and agreement, application of knowledge and pressure of performance. Managers who benefit from high level of organizational intelligence are better able to obtain altruism and self-knowledge; in fact, people having high level of organizational intelligence have more attitude for learning and thus they are able to manage their emotions and through saving knowledge, to obtain more life skills. Results of this research are compatible with results of previous research by Eftekhari and Allahyari (2015). Generally, it is stated that if organizational intelligence is applied in the way of decision making, learning, quick and correct application of creativity and different life skills, it is able to better adapt with changes and obtaining more strategies for improving performance of organization. It is to be noted that there is suitable condition for benefiting from such abilities inside of organization.

Recommendations:

- Necessity of studying and planning in the way of creating and changing morale, attitude for change among managers and employees of organization in the way of increasing organizational intelligence
- Green space organization of Tehran shall share its employees on organizational decision making as encouragement leading

to increasing effectiveness and self-sufficiency

- It is recommended that for obtaining suitable organizational management, it is necessary for improving organizational intelligence of managers; since, factors of rising suitable management style originates from items including: Controlling emotions, self-knowledge

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