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THE REGRESSION MODEL OF IRAN LIBRARIES ORGANIZATIONAL CLIMATE

Mohammad Ali Jahani[1], Mousa Yaminfirooz[2], Hasan Siamian[2]

[1]General Education Department, Faculty of Medicine, Babol University of Medical Sciences, Babol, Mazandaran, Iran
[2]Health information Management Department, School of Allied Medical Sciences, Mazandaran University of Medical Sciences, Mazandaran, Sari, Iran

Corresponding author: Mousa Yaminfirooz, Assistant Professor, General Education Department, Faculty of Medicine, Babol University of Medical Sciences, Babol, Mazandaran, Iran. E-mail: yaminfirooz@gmail.com

ABSTRACT

Background: The purpose of this study was to drawing a regression model of organizational climate of central libraries of Iran's universities. **Methods:** This study is an applied research. The statistical population of this study consisted of 96 employees of the central libraries of Iran's public universities selected among the 117 universities affiliated to the Ministry of Health by Stratified Sampling method (510 people). Climate Qual localized questionnaire was used as research tools. For predicting the organizational climate pattern of the libraries is used from the multivariate linear regression and track diagram. **Results:** of the 9 variables affecting organizational climate, 5 variables of innovation, teamwork, customer service, psychological safety and deep diversity play a major role in prediction of the organizational climate of Iran's libraries. The results also indicate that each of these variables with different coefficient have the power to predict organizational climate but the climate score of psychological safety (0.94) plays a very crucial role in predicting the organizational climate. Track diagram showed that five variables of teamwork, customer service, psychological safety, deep diversity and innovation directly effects on the organizational climate variable that contribution of the team work from this influence is more than any other variables. **Conclusions:** Of the indicator of the organizational climate of climateQual, the contribution of the team work from this influence is more than any other variables that reinforcement of teamwork in academic libraries can be more effective in improving the organizational climate of this type libraries.

Key words: Organizational climate,academic libraries, Iran, climateQual.

1. INTRODUCTION

Organizational climate has traditionally been viewed as a set of underlying values, beliefs and principles that employees perceive are held within their organization (1, 2). It has been associated with work attitudes, provider attitudes toward evidence – based practice (3). It affect one`s understanding of his/her abilities (4). Organizational climate is not something that happens in short time(5). It reflects the tangible, culture – embedding mechanisms of organizations (6). The organizational climate as well as significant differences among several of the assessed professions (7). It influence worker burnout directly (8)and has been conceptualized at both individual and organizational levels of analysis (9) and it often used with organizational culture (10). Organizational climate depends on the role employees into the designing of the evaluation system and predominant promotion system (11). A good organizational climates be caused to promotion of employee performance, productivity, job satisfaction, organizational commitment, organizational justice, motivation and organizational effectiveness (12). Positive organizational climate enhances positive interpersonal relationships (13) and play important roles on firm innovativeness (14).

The history of social research in the field of human behavior began with investigations of the Kurt Levin in 1930's and 1940's (15), but the concept of organizational climate was raised for the first time in the late 1950 's (16).

But the idea of the evaluation of the organizational climate in libraries was raised for the first time in 1999 at the University of Maryland that in cooperation with the association of research libraries leading to the production of a tool called"ClimateQual"in the year 2007, and from that date,was used as a standard tool for evaluating the organizational climate of libraries (17).

Evaluation of organizational climate is done in other organizations and fields continuously. Butthis situation is not prevailing in library organizations. Perhaps the main reason for this is the less attention to the topic in the library and the lack of a standard tool in this field. From the small number of studies that surveyed the organizational climate of the libraries by "ClimateQual" tool can be noted to the study of Li & Bryan (2010) which evaluated the satisfaction of the Library personnel of Cornell University with the use of the indicators of this tool. This research was rooted in the belief that satisfaction rate of personnel has a direct and positive effect on the satisfaction of the users. This study assessed the attitude of that library users from the working environment of the library. The results of the ClimateQual survey of Cornell university confirm this hypothesis that healthy working environment from the perspective of the organization's employees causes the satisfaction of the organization customers (18).

The first research that specifically surveyed organizational climate of libraries in Iran studied by Yaminfirooz & et al in 2013. They assessed the organizational climate of the library of Babol University of Medical Sciences, but the tool has been used in this research was the same as the famous questionnaire of Liel *Susman and Sam Deep* that was also used in other areas. In that study, the average score of the organizational climate of the investigated libraries was 112 of the maximum score of 160 (19). Arabacı (2010) concluded that academic personnel have more positive climate perception than administrative personnel, in the same way women and the old have more positive climate perception than men and the young respectively (20). Yaminfirooz, Noshinfard, and Hariri (2013) al in another study studied the organizational climate of Medical libraries of the north region of the country in the same year, but this time they used from the ClimateQual tool .This study was among the first studies in the field of the libraries organizational climate that was done with the use of ClimateQual tool. The results of that study showed there was a favorable organizational climate in the college library compared to the hospital libraries (21).

According to the presented contents, it is clear that studies in the field of the Organizational climate of libraries is very limited both in Iran and in other countries which this condition shows this type of research in the field of library and information science is very new and innovative. Another point that was clear in reviewing the literature is that indicators or different dimensions of organizational climate have been changed in different years and researchers and theorists of this area each have studied one of its specific dimensions. But the dimensions provided in ClimateQual tools is different with the previous dimensions at least in terms of shape and title. Therefore, in this study and with such an approach, will draw a regression model of the organizational climate of the central libraries of Iran's State universities while evaluating the organizational climate of central libraries of state universities with the use of this tool.

2. METHODS

This research is an applied study in terms of the objective. *The statistical population of this study* consisted of all 510 employees *of* 96 Central Library of the country's public universities that selected among the 45 universities affiliated to the Ministry of Health and 72 universities affiliated to the Ministry of Science and research by Stratified Sampling method. Of this number, 450 people participated in the study voluntarily. The localized ClimateQual questionnaire was used as research tool that had 36 question related to 7 options *LIKERT* SCALE. The Cronbach' alpha method was used for the calculation of the reliability coefficient of Organizational climate questionnaires and the willingness of employees to participate in decision-making. By this method, the consistency level of the questionnaire was tested and in appropriate questions, were modified and remodeled. The Cronbach's alpha value in describing Organizational climate questionnaire was equal to 0.96.

According to the Climate Qual questionnaire, the minimum and maximum score for organizational climate in each of the 9 indicators is 4 and 28, respectively. Soin this regard, we have assumed the average range in each of these indicators located on a continuum from 4 to 28. The score of 4 to 10 is classified as unfavorable Organizational climate, the score of 11 to 16 as acceptable Organizational climate, the score of 17 to 22 as a good organizational climate and the score of 23 to 28 as ideal organizational climate. Also, The total average range of the organizational climate located ona continuum from 28 to 256 this means that score of 28 to 83 is considered as unfavorable organizational climate, the score of 84 to 139 as acceptable organizational climate, the score of 140 to 195 as a good organizational climate and the score of 196 to 252 as ideal organizational climate.

For the analysis of the obtained data is used from the techniques of descriptive statistics (Central parameters such as average, standard deviation) and inferential statistics (*Mann-Whitney U Test*, Pearson correlation coefficient and *Kruskal–Wallis*test) and to predicting the organizational climate pattern of the libraries is used from the multivariate linear regression and track diagram.

3. RESULTS

Of the total studied *population*, 175 people (42.2%) were working in the public service department, 136 people (32.8%) in the Technical Services Department, 52 People (12.5%) in the administrative division, and 52 people (12.5%) in the super vision or management section. In terms of the field of study, the 344 library staff members (80.5%) were educated in the field of Librarianship and Information Science (LIS) and the rest of 81 employees (19.5%) were educated in the fields other than the LIS.

Of the 9 indicators of ClimateQual, customer service climate with an average of 18.91 and demographic climate with an average of 15.97 had a higher average in comparison with other indicators. Average score for continuing education climate (13.26) and justice climate (13.91) was lower than other indicators. In total, according to the researchers' hypothesis, the status of the evaluation was determined favorable only in customer service climate and in demographic climate, and in the other indicators the climate was estimated acceptable. In general, the organizational climate condition of the studied libraries was determined favorable according to the obtained mean score of 140.68 and its comparison with the minimum and maximum of total score of organizational climate (28 and 252) and according to the researchers' hypothesis.

The results of Mann-Whitney non-parametric test according to the obtained p-value showed there was a significant difference between the organizational climate of the libraries of Ministry of Science, Research and Technology and the organizational

Group	Number	Ranking average	Test value	Z	P-values
Ministry of science	269	232.79	12968.500	-5.716	0.000
Ministry of health	146	162.33			

Table 1. The comparison of the organizational climatein two groups of the Ministry of health libraries and Ministry of science libraries

climate of the libraries of Ministry of Health and Medical Education (p-value = 0.000), namely, the average scores of the organizational climate in all studied indexes, in the library of the Ministry of science was higher than the average scores of the organizational climate in the libraries of the Ministry of health (Table 1).

Independent variable	The organizational climate		
	R	N	P
AGE	0/099	415	0/044
work experience	0/139	415	0/000

Table 2. The Correlation coefficient between the organizational climate and the personnel's age and work experience

The results of Pearson correlation test showed there was a significant and positive correlation between work experience and organizational climate, this means that in terms of the staff with more Work Experience, the status of the organizational climate available in libraries is more desirable. Also, there was a significant and positive correlation between the age of employees and organizational climate, this means that whatever the age and work experience of employees increase, their attitudes to the organizational climate of libraries change, and this change of attitudes is positive (Table 2).

P-value	The value of the coefficient	Variable
0.000	0.056	Innovation and creativity
0.000	0.078	Teamwork
0.033	0.039	Customer service
0.000	0.094	Psychological safety
0.000	0.04	Deep diversity
	1.28	Fixed number
0.623	R	
0.387	R2	
The score of organizational climate =1.23+0.056 (the score of innovation) + 0.078 (the score of teamwork) + 0.039(the score of Customer service) + 0.094 (the score ofpsychological safety) + 0.04(the score of deep diversity)		

Table 3. Multivariate regression linear relationship in the indicators of ClimateQual

To drawing the regression models of the organizational climate of Iran's Universities Libraries, and to drawing the linear relationship between the variables of justice, management, demographics, innovation, in-service training, teamwork, customer service, psychological safety, deep diversity and organizational climate used from the multiple regression and a step by step method . First, the Pearson's correlation coefficient were calculated between variables and the variables of teamwork, customer service, psychological safety, diversity and innovation were placed in the model for this reason that their correlation coefficient with the organizational climate was meaningful and the rest of the variables were excluded from the model (Table 3).

Based on the findings of the above table and based on the above equation, the innovation and creativity climate are within the limit of the obtained result and at the level of p=0.000, teamwork at the level of p=0.000, customer service at the level of p=0.033, psychological safety climate at the level of p=0.000, and deep diversity at the level of p=0.000, with a correlation coefficient of r = 0.623, R=0.387 are predictors of organizational climate.

This means that, among the 9 variables affecting organizational climate, 4 variables of innovation, teamwork, customer service and psychological safety, play an important role in prediction of organizational climate of Iran's library. The results also show that each of these variables with a different coefficient have this ability to predict the organizational climate whiles the psychological safety score of staff working in central libraries of Iran's state universities has an important role in the prediction of the organizational climate. Therefore, the organizational climate of the staff working in Central Library of Iran's public universities can be predicted from their scores of the innovation, teamwork, customer service, and psychological safety climates and based on the provided equation.

The organizational climate Point (6.09) = (15.11)0.04 + (15.97)0.094 + (18.91)0.039+ (15.07)0.078 + (15.03)0.056 +1.23

We expect the organizational climate Points be equal to 6.09 in this regression model if the average score of innovation and creativity is considered 15.03, the average score of team work 15.07, the average score of customer service 18.91, the average score of psychological safety 15.97, and the average score of deep diversity 15.11, and minimum and maximum score of the organizational climate be equal to 1 and 7, respectively. So whatever the obtained average in 5 variable increase, organizational climate score will also increase proportional to the coefficient of each of the variables.

The multiple determination coefficient was calculated more than 0.7 in each steps of the multiple regression that shows the accuracy of the model in each stage of regression. With the use of the obtained coefficient from the path analysis, Path coefficients were determined that has been brought in the following diagram (Figure 1).

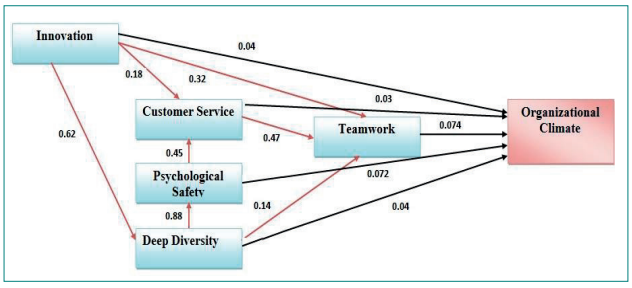

Figure 1. Theregressionmodel oforganizational climate of Iran'sstatelibraries

4. DISCUSSION

With regard to the minimum and maximum score of organizational climate (28 and 252), the average of obtained score of 140.68 and according to the assumption of the researchers, the status of the organizational climate of the studied libraries evaluated favorable. With regard to the maximum score of organizational climate (252), surveyed libraries have a long way

ahead to achieve the ideal climate. In this regard, attention to in-service training of employees, encouraging employees to creativity and innovation (8), and justice in rewarding are very important factors in improving the climate of Iran's academic libraries. The favorable organizational climate is a condition in which people work with high interest and are proud to work in this place. In a favorable organizational climate, staff have considerable job satisfaction and are high motivated to overcome the problems (22). On the favorable organizational climate employees feel that their existence is necessary and will be added to their working morale (23).

Of the nine indicators of ClimateQual, the highest average was belong to the customer service climate (18.91) and the lowest average was belong to the training, and continuous learning (13.26) and justice climate (15.03) that is a sign of staff 's attention to meet the information needs of clients referred to these library. The staff are also unhappy from the status of their in-service training. In this field, Behrangi believes that staff and managers of organizations should be equipped with modern science and knowledge in addition to the commitment and personal and social competencies. They have to adapt to new developments (24). The study results of Zarei & et al about the influence of in-service training on employee performance level showed, there was a positive relationship between the in-service training and the performance of staff (25). As well as the study of Boyd & Osbahr showed, in-service training causes to employees become more flexible against the changes. Although in that study like this study, the employees were not satisfied with the rate of job training of their organization (26). Therefore, it is necessary to holding of the in-service training and continuous learning process to be reviewed in studied library. Perhaps this lack of satisfaction is one of the reasons for the unfavorable attitude of the staff to the organizational climate at the libraries.

The result of *Mann-Whitney test* according to the obtained p-value showed that there was a significant relationship between the staff's field of study and their attitude towards the organizational climate of libraries, this means that employees who have a degree other than the librarianship (LIS) field evaluated more favorable the organizational climate of libraries compared to employees who have a degree in librarianship (LIS). Due to the lack of similar studies in this regard, there was no possibility for the comparison of the results. But the reason for this situation may be attributed to the fact that non-specialist staff are satisfied with the existing status because they work in the environment that do not have its specialized knowledge.

Path diagram showed that five variables of team work, service, safety, diversity and innovation directly effect on the organizational climate variable that contribution of the team work variable has the greatest influence compared to the other variables. As well as, innovation, service and variety variables effects on the teamwork variable that contribution of service variable is more than the contribution of two variables of innovation and diversity. Also, the safety and innovation variables effect on the customer service variable, the variety effects on the safety, and the innovation effects on the diversity. Besides that 5 variables directly effect on the organizational climate, have also a direct or indirect influence on each other. This means that deep diversity, customer service and innovation directly effect on teamwork but the influence of customer service variables is more than the effect of any other variables. Another important point is that innovation variable has an influence on all aspects of organizational climate directly or indirectly.

The explanation of this issue requires further and relevant research in this field, but domestic and foreign research carried out in non-library organizational is always expressing this fact that Organizations have a favorable organizational climate that support innovative ideas of employees, interested to the promotion of the staff, their managers accept new and creative ideas of staff, encourage them to express their ideas, and even try to implement it.

5. CONCLUSION

Among the indicators of the organizational climate of ClimateQual, five variables of teamwork, service, safety, diversity and innovation directly influence on the organizational climate that contribution of the team work from this influence is more than any other variables. So the reinforcement of teamwork in academic libraries can be more effective in improving the organizational climate of this type libraries.

CONFLICT OF INTEREST: NONE DECLARED.

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