

Research Article**Compare the attitudes of the faculty members of Tabriz Medical Sciences University toward research activities with regard to individual and organizational factors****Masoume Allahgholizade, Behnam Talebi,****Sohrab Yazdani and Jahangir Yari**Department of Humanities and Education,
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ABSTRACT

Medical Sciences in Iran, along with other sciences, requires research to be carried out to generate modern science and ultimately the continuation of health in the community, this research is possible through researchers and academics, including university faculty members. The aim of this study is to compare attitudes of the faculty members in Medical Sciences University toward research activities with regard to individual and organizational factors, in order to strengthen factors that tend to have a positive impact on eliminating those factors which have a negative impact on the tendency of faculty members to carry out research. This research is a descriptive study without interference or subjective inference, regarding the potential factors that have happened before; the statistical population comprises all faculty members of Tabriz Medical Sciences University including a total of 765 out of which 256 people were randomly selected using Morgan table. Data collection was carried out by questionnaire. Likert scale was used to measure structures. The examined factors in this study in order to compare the tendency of faculty members to research activities in the university were professors' familiarity with research methods, participating in in-service refresher training, the existence of informative networks at the university, allocation of financial resources for research by University of and job satisfaction of the professors. Data analysis was performed applying SPSS statistical software, Friedman test was used to analyze the main hypothesis of and for the next assumptions with regard to respondents division into two groups with desired factors inclusion and non-inclusion the independent T-test was used.

Keywords: research activities, individual and organizational factors, faculty members**INTRODUCTION**

One of the indicators based on which the countries are rated and their position in development is considered for them, is the existence of academia and the extent of their participation in the scientific and research works. No doubt, this issue is more important for developing countries like our country compared to developed countries. Production of

knowledge through research work is not only a key factor in scientific, economic, social, political, cultural development, but also is considered important in preserving and promoting religious and national identity. Today, the country's most pressing need is to strengthen the research. No research, no firm foundation for the country's independence. The

results of scientific research usually become apparent after a relatively long time and if we don't expend the necessary cost to make this important sector we will surely regret in the future. Human resources in the research sector are one of the major quantitative indicators that can be used for the visual depiction of research. According to UNESCO statistics, Iran is elected among 43 countries, in terms of the number of researchers per million inhabitants, and is ranked 34th. The highest number of researchers is related to Japan with more than 4,000 researchers per million people and countries such as Sweden, Russia, America, Norway, Australia, Iceland, Denmark and Switzerland with approximately 3,000 to 4,000 people in a million are the next ranks. (Mohammadi, 2010).

Statement of the problem

One of the most fundamental activities in the dynamics and development of a society is to engage in research activities, especially in the academic and research centers and by researchers and faculty members. Today we are witnessing the increasing emphasis on research and knowledge production in the scientific and academic communities. Societies that paid special attention to the issue of the research and seriously addressed it, have been able to achieve significant growth in economic, cultural and industrial parts (Nasrollahi, 1380). Also, the faculty members are in the pressure of multiple roles such as teaching, research and some administrative tasks in higher education. The current view governed on academics is that professors of higher education in addition to skills in training should be successful researchers and should have the ability to conduct useful and purposeful research (Sachs, 1996). Supreme Cultural Revolution Council in its resolutions, made the role of research and researchers and the presence of attempt to discover new content as essential for the country and has obliged the government to remove the barriers of research and provide material and moral support for the researchers to strengthen the research and development efforts (A. Ashrafi, et al., 2014).

According to figures released from UNESCO, the amount of investment in research and training the researchers in industrialized countries show a very high figure and; in other words, funds that are allocated to them is 2 to 24 percent of the national income , while in developing countries the figure was 5.0 percent or less.

The number of researchers per million is 24 times higher than the number in developing countries. It must be also understood that the development of knowledge takes time in each country. For example, it took more than 50 years for America and Japan to make their research and scientific organizations standard as Europe and even compete with them or even act beyond them (UNESCO Statistical Institute - Global Outlook report of research and development, 2009).

In this regard, while carrying out this research we decided to compare the tendency of the faculty members of Tabriz Medical Sciences University - on the basis of individual and organizational characteristics- toward research works and sought to remove obstacles and promote positive factors by proposing it to the relevant authorities.

General hypothesis

The tendency of faculty members in Medical Sciences University of Tabriz toward research activities with regard to different individual and organizational factors.

Subsidiary Hypothesis

- The tendency of faculty members toward research activities is different based on the professors' familiarity with research methods.
- The tendency of faculty members toward research activities is different based on the professors' participation in training refresher courses.
- The tendency of faculty members toward research activities is different based on the professors' accessibility to informative networks.
- The tendency of faculty members toward research activities is different based on the

financing (remuneration paid by the university).

- The tendency of faculty members to research activities is different based on their job satisfaction.

Research Methodology

According to the objectively and systematically description of the characteristics of the issue without any intervention or subjective inference, considering the possible factors that has happened before, this study is a past-associated event.

Population and the samples under investigation

Statistical population of the study includes all units of the University of Medical Sciences during the academic year of 94-93. According to statistics from the Department of Tabriz University of Medical Sciences during the academic year of 94-93 the number of 765 faculty members was working in eleven faculties of the University.

Sampling Method

To select the samples, stratified sampling method has been used. To select the samples, first the size of the population of Tabriz Medical Sciences University which has 11 faculties was provided through the Department of the University on basis of the colleges. Then, using random sampling, samples were selected taking into account the sample size and separately of faculties.

Methods for analyzing the data

Friedman test was used to analyze the main hypothesis of and for the next assumptions with regard to respondents division into two groups the questionnaire was divided into inclusion and non-inclusion of the factors and the independent T-test was used.

1. Freidman Test: this test is used to compare the severity of the impact of each of the six factors in Professors' tendency to research activities.
2. T Test: this test is used to compare one or more variables in one or two groups.

Data Analysis

Statistical analysis of the main hypothesis

Comparing the tendency of the faculty members of Tabriz Medical Sciences University toward research activities according to the individual and organizational factors

Prioritization of individual and organizational factors influencing the tendency of faculty members to carry out the research

In this section Friedman test has been used in order to determine the priority of individual factors and organizational factors. The results are shown in Table (1-1).

Table 1. Friedman test for ranking individual factors and organizational factors.

256	number
256	Chi-square
1	Freedom degree
0/000	Level of significance

Table 2. Ratings of individual and organizational factors

Rank mean	Factors	Number
1/00	Individual	1
2/00	Organizational	2

According to the data of Table 1 it is observed that the obtained chi-square is equal to 256. Also the significance level is 0.000 and is smaller than 05/0. So, it can be concluded that; there are differences between individual and organizational factors in the tendency of faculty members toward research activities.

Based on the obtained average rating in Table B, the individual factors with an average rank 1 are in priority and organizational factors ranked 2 and placed in the second priority in terms of faculty members' tendency toward research activities.

The results of ranking in all hypotheses were obtained according to the differences between the averages (Table 3), respectively.

The average difference	Hypotheses index	Results	Hypotheses
1/14	Attending the refresher	Rejected	Hypotheses-2 individual

	training		
1/22	the presence of informative networks	Rejected	Hypotheses-3 organizational
1/78	Financing by the University	Accepted	Hypotheses-4 organizational
1/86	Familiarity with Research Methods	Accepted	Hypotheses1 - individual
3/00	Professors' Job satisfaction	Accepted	Hypotheses-5 individual

According to the results in the table (c), from top to bottom the Hypotheses ratings change from small to large and Hypotheses will increase in their effectiveness in the pecking tendency of faculty to do more research.

The second hypothesis which is inclusion and non-inclusion of Professors to participate in training refresher courses had the least impact and the impact of hypothesis 5 which is inclusion and non-inclusion of Professors in job satisfaction and lack of job satisfaction has the greatest impact on their tendency toward research activities.

Professors' tendency to research activities

The results of Professors' tendency to research activities are provided in the table (2).

Standard deviation	Mean	Min.	Max.	No.	
9/7448	91/5527	6	30	256	Professors' tendency to research activities

To measure the tendency of faculty members to do research, 6 items (question 1 to question 6) in above were used respectively. Items of discussion for this variable are: 1. being interested in research, 2. the allocation of time during the month to research activities, 3. Carrying out research activities during the service, 4. do research activities as a student, 5. Encourage students toward research activities, 6. the impact of academic research activities in promoting the university rank. And non-inclusion of factors had the total score of less than 18 (score 3= No view * 6 = number of

questions) and 18 and greater than 18 was considered as having a tendency toward research activities. According to Table 2 and the results it can be seen that the average tendency of the faculty members under studied toward research activities equals 55/91.

And this represents the amount of interest to research activities is Professors. Following, the obtained tendency and the impact of hypotheses and assumptions on Professors in research activities tendency will be examined.

First hypothesis: the tendency of faculty members toward research activities is different based on professors' familiarity with research methods.

The average of groups familiar with research methods (inclusion) and unfamiliar with the methods of research (non- inclusion) was 48/28 50/24 respectively, the t value obtained is equal to 837/10 and significant level is 0.000. Since the value obtained for the significant level was for less than 05/0, so with more confidence and premise or assumption of 95/0 is rejected and the main premise of the study is confirmed and it can be concluded that there is difference between the professors' familiarity with the methods of research (inclusion groups and non-inclusion groups). Also, due to the positivity of lower and upper 95% confidence interval for the difference of the two groups, it can be concluded that the average of the two groups is greater than zero and the average of the inclusion group (the first) was larger than the non-inclusion groups (of second).

The second hypothesis: the tendency of the faculty members toward research activities is different based on their attending courses of training refresher.

The average of groups participating in retraining courses (inclusion) and not participating in retraining courses (non-inclusion) was 250/28 895/27 respectively, the t value obtained equal to 004/1 and 316/0 level of significance. Since the value obtained for significance level is greater than 05/0, so with the confidence of 95/0 the assumption of hypothesis 0 is not rejected and the assumption

of hypothesis 1 or the main premise of the study is not confirmed and it is concluded that there is no difference between the tendency of faculty members toward scientific research activities in term of attending the courses. Also, due to the negative low limit and positive upper limit 95% confidence interval for the mean difference between the two groups, it can be concluded that the average difference was not significant between the two groups and there is no difference between the two groups.

The third hypothesis: the tendency of faculty members toward research activities varies based on available informative networks.

The average of groups which have access to informative networks (inclusion) and those lack the access to informative networks (non-inclusion) was respectively, 1134/28 and 8868/27, the t value and the level of significance was equal to 0/751 and 0/453 respectively. Since the value obtained for significance is larger than 0/05, so with the confidence of 95/0 hypothesis 0 is not rejected and hypothesis 1 or the main premise of the study is not confirmed and it is concluded that there is no difference between the tendency of faculty members toward research activities based accessibility or non-accessibility to informative networks. Also, due to the negative lower limit and positive upper limit 95% confidence interval for the mean difference between the two groups, we can conclude that the difference between the average of the two groups was not significant and there is no difference between the two groups.

The fourth hypothesis: the tendency of faculty members toward research activities is different based on Financing (remuneration paid by the university) (Organizational factors).

The average of groups supplied of funds (inclusion) and those with inadequate funding (non-inclusion) was respectively, 183/27 and 347/28, the amount of t obtained -3/351 and 001/0 is the level of significance. Since the value obtained for the level of significance was less than 0/05, so with the confidence of more than 95/0 the assumption of hypothesis 0 was

rejected and the fourth assumption or premise of the research is confirmed and it is concluded that there are differences between the tendency of faculty members toward scientific research activities based on Financing by the University. Also, due to the negative lower limit and upper limit of 95% confidence interval for the difference between the two groups, we can conclude that there is a significant difference between the two groups, and the two groups are different.

Fifth hypothesis: the tendency of faculty members toward research activities is different based on job satisfaction of the Professors.

The average of groups that have high job satisfaction (inclusion) and groups that have lower job satisfaction (non-inclusion) was 2839/28 and 4950/27 respectively, the t value was obtained 669/2 and the amount of 0/008 was achieved for the level of significance. Since the value obtained for the level of significance was less than 0/05, so with the confidence of 95/0 the hypothesis 0 was rejected and hypothesis 1 or the fifth premise is confirmed. It is concluded that there are differences between the tendency of the faculty members toward research activities and lack of job satisfaction. Also, according to the positive lower limit and the upper limit of 95% confidence interval for the difference of the two groups, it can be concluded that the difference between the two groups average was significant, and the two groups are different.

CONCLUSION

In studying the first hypothesis, the results showed that in the statistical population under study the percentage of people who considered the impact of the above factors influencing on the tendency of Professors toward research activities (agree or strongly agree) (inclusion) is more than those who do not consider the impact of these factors influencing (strongly disagree, disagree and have no idea) (non-inclusion). So, it can be concluded that in the respondents' viewpoint this factor is effective in attracting them to research activities. The second

hypothesis (of organizational factors) in which the population under studied, the percentage of people that considered the impact of the above factors influencing the tendency of Professors toward research activities (strongly agree and agree) (inclusion) was not much different with percentage of those who do not consider such impact of these factors (strongly disagree, disagree and have no idea) (non-inclusion). So, it could be said that the respondents believed these factors to have no effect in their tendency toward research activities. In the third hypothesis (of organizational factors) in respondents' point of view; this factor had little impact on their tendency toward research activities. In hypothesis four (of organizational factors) the factor effectively influenced their tendency toward research activities. The results of the analysis of the questionnaire and the 5 hypotheses of the study showed that the respondents (the faculty members of Tabriz Medical Sciences University) agreed on three hypotheses 1, 4 and 5. They considered the above factors effective in their tendency toward research activities but they considered the hypotheses 2 and 3 ineffective in their tendency toward research activities. To rank the effectiveness of the study and comparison of these factors; Friedman test was used. The respondents believed that the effect of organizational factors of participating in refresher training courses had the lowest impact, and the impact of individual factors in job satisfaction has the greatest impact on their tendency toward research activities.

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