The relationship between researching skills of faculty members and their willingness to undertake research projects in area 5 of Islamic Azad University

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Abstract: The main objective of this study is to investigate the relationship between research skills of faculty members of Islamic Azad University and their willingness to do research projects. Research method was a descriptive - survey and field research. The population in this research was faculty members of Islamic Azad University. The sample size was 63. In this study questionnaire has been used to collect data. The results showed that unfamiliarity of Islamic Azad University faculty with research methods and lack of training workshops on research methods are effective factors on disregarding of faculty members to research.

Key words: Investigation; Research skills; Research Centers; University - industry relations

1. Introduction

One of the missions of university especially with regard to the progress of science and technology is investigation and research. In other words, in addition to learning, investigation is necessary to increase community awareness and comprehensive development. But all opportunities of universities and higher education centers had been used for learning and faculty members usually do not like scientific research. Therefore, investigating cause or causes of this lack of attention to the research mission of the faculty has been studied. Research is one of the main elements of economic, social and cultural development. It is difficult to develop an independent and methodical research in long term, regardless of research. Therefore, it is very important to invest in research. The results of research will be applied and increase productivity (Delaware, 1991).

2. Research systems in the world

Different countries in terms of the type and degree of mobility of research systems can be divided into 3 groups.

The first group includes countries where academies are responsible for policy research. Every country has several academy in science and technology, literature and the humanities, medicine and counseling. Every academy oversees the activities of many organizations and research centers (Shariatmadari, 1985).

The main role of academies is informing by publishing large number of scientific journals (Amid, 1985). For example eastern European countries such as Tabarestan, Bulgaria, Romania and Poland. Furthermore, according to the system of government in these countries, all universities are under the supervision of government and help informing by printing and distribution of various journals. In addition, several industrial centers publish their research functions as periodic and annual reports (Naderi and Naraghi, 2001).

The second group includes countries where policy research and managing a large part of centers and research institutes are responsibilities of an organization called "National Organization for Scientific Research". France, Spain, Italy and India are in this group.

The third group includes a large part of Third World countries that have not any type of pattern and organization to guide long-term policy research and with cross and sometimes conflicting policies and guidelines, waste the energy and research facilities or ultimately cause repeated studies and research simulation of foreign (mainly Western).

3. Research centers of Iran

In 1920, Pasteur Institute, which is in fact the first research center in the field of medicine, was founded in Iran. After 37 years, seven other research centers were established. Between 1957-1960 eight research centers and research institutions also were established. From 1979 to 1990, more than 50 research centers and governmental research institute were founded 4. The first non-governmental research institute was established in 1978. Until 1992, 315 units, companies or institutions were established (Naderi and Seif Naraghi, 1985).

4. The necessity of research in universities
Universities always are the center of intellectual development and scientific innovation. Knowledge is derived from research. Also, research is the result of knowledge. Knowledge can be found at universities and universities are the best locations for research. If the Universities do not pay attention to research, the number of qualified teachers will be reduced gradually (Bagher Zadeh, 2004). Research and knowledge production in the country will guarantee the social and cultural forces of our society (Magdi, 2008).

Basically, the study will be effective when the "learning" is in form of research. Today, all countries are trying to consider the role of universities in national development, Promoting science and technology. Thus, development policies are linked to universities. However, achieving this goal requires fundamental reform of university. The role of the university in a developing country is cooperation, creating new ideas, training expert human resources for the society (Karimi, 2013)

5. The relationship between university and industry in Iran

Private sector participation in the research activities is not significant. On the other hand, public research centers do not have important role in the research activities. Thus, universities traditionally have leading role in research organizing (Mohammad, 2006). Now the question is that do universities have been successful in responding to research needs of industry or not?

6. Barriers to relationship between university and industry

These barriers can be divided into two categories: barriers due to poor academic performance and barriers caused by the weakness of industry.

6.1. Barriers due to poor academic performance

1-Barriers to learning: Training of university has not relation with industry. Therefore, students do not have knowledge of the industry and the most talented college graduates teach in universities with no industry experience. Finally, they will not attend industrial applications in teaching students.

2-Barriers to research: Bureaucracy, Shortages of equipment and materials, Low levels of research funding, strict rules for academics to prevent contracts with industry, absence or weakness of information resources, etc are some barriers to research. The goal of most academic researchers mainly is attainment scientific degrees. Thus research are very theoretical and without application in industry. Furthermore, most of the research activities of universities have been a means to exaggerate the academic achievements (Khaki, 2012).

6.2. Barriers caused by the weakness of industry

- The lack of industrial productivity in Iran
- Industry does not have trust to university (because industry does not recognize the research possibilities and capabilities of universities and universities tend to fundamental research instead of applied Research)
- Lack of industry consultation
- Inadequate attention to education in industry

Barriers research at universities

The main barriers to research in universities are (Haghighat-Monfared, 2013)

- Lack of research funding: greater investment in research not only enhances the scientific and practical capacity of researchers, but also it is a key factor in doing research.

- Research resources and Tools: In this regard it should be noted that the lack of books and journals, libraries weakness in responding to the needs of researchers, lack of modern informing equipment, inability of library staff in working with these equipments, lack of computers and other devices and laboratory instruments, inability to publish results of research, support systems weakness in reliable and inexpensive service for research, lack of adequate space, no attention to repair certain equipment for research, the absence of a national scientific databases, lack of facilities for using internet.

- University Structure: Effective key factors in university structure on Scientific Research are
  - University Structure is not appropriate for research
  - Research is not in priority.
  - Research requirements of country is not clear
  - Continuously complaints due to lack of research facilities and hiding weakness in research.
  - The lack of dynamism in research and educational programs and services.
  - Faculty members do not have enough time to do research or develop their research skills
  - Confusion and disillusionment of students due to failure to meet their scientific and empirical expectations.
  - Unfair and unscientific assessment of research activities.

- Research forces: Lack of efficient researcher and Lack of a comprehensive plan for training such a force are the most important factors in preventing research and are big barriers to achieve the goals of national development plans.

- National and international relationship: Lack of communication between universities and research institutions and other sectors of society, Lack of research relationship between universities and manufacturing centers are the reasons for lack of support from universities and research duties.

On the other hand unfamiliarity of universities and academic staff of country with other universities and ignorance of progress and achievements of modern universities in other countries are big research barriers.
-Society attitudes: Public trust in university research largely depends on the performance of university, solving social problems and the importance of universities and research institutions of the country for government (Azkia, 2003).
-Policy: Lack of policy coordination, lack of coordination between policy and implementation, not understanding the importance of giving priority to national research, lack of support research in solving industrial economic and cultural problems and projects cause to reduce motivation and innovation and providing constructive comments.
-Management: The absence of a strong central organization for synchronizing research activities of universities, ministries research institutes, and various government agencies and private sector, in order to achieve objectives of national development plans is the most important barrier in research. In fact, such an organization is the designer of research policies (Gholamrezayee, 2010).

7. Literature review

Jami Trkhany (1995) in an investigation entitled "Investigating research organizations of universities of Medical Sciences" has mentioned universities as the main research institutions in the country. He has mentioned that the first step in development of research activities understands research organization of universities. The population in this study has been all Universities and Colleges of Medical Sciences. Questionnaire has been used. Research has been descriptive and analytical. Results were as follows: Only some medical universities had independent Research Department. University research staff to staff ratio was very low. Only one university had research faculty members. Finally, this study also has emphasized the need for research faculty member.

Sattar (1996) in a study entitled "Investigating the status research in the faculty of Educational Sciences colleges in Tehran" has investigated status of faculty, and has offered solutions to problems, defects or barriers to research. The population was all faculty members in the departments of Educational Sciences in Tehran universities (141 members). Research method was Survey. Population was researchers of research centers in Tehran. Questionnaire has been used. Results were as follows:

1- There are no relationships between facilities with research.
2- There is no relationships between job security for faculty members with research.
3- Most of faculty members (61%) believed that using of information networks is low and very low.
4- More than half of the faculty members (56.8%) believed that connection with scientific and research centers (internal and external) is low and very low.
5- Approximately half of the faculty members (44%) believed that their research spirit is low and very low.

6- More than half of the faculty members (57%) believed that allocation of funds and resources to research in Educational Sciences is low and very low.
7- Taheri Laraky (1996) in an investigation entitled "Factors and barriers to promote culture of research and innovation " has investigated contributing factors to the promotion of research and development. Research methods was descriptive-Survey. Population was researchers of research centers in Tehran. Questionnaire has been used. Results were as follows:

1- Equal salary to faculty members and research center members.
2- Providing transport facilities in order to research.
3- Establishing research centers in nearby academic and industrial areas.
4- Providing welfare facilities for research centers staff.
5- Attracting financial resources of industrial centers for development laboratories and research units.
6- Using of plans, projects and research activities in the manufacturing sector.
7- Allocation of funding and special banking facilities for research centers.
8- Supporting professional journals for introduction of successful research projects.
9- Definition of educational programs with research trends.
10- Supporting successful national projects.
11- Commemoration of the nation's top researchers.
12- Introducing successful research groups through media.
13- Continuous assessment of research activities.
14- Increasing financial resources for shopping needed parts of research centers.
15- Providing job security and job satisfaction through proper salary.

8. Materials and Methods

Research method was descriptive - survey and field research. The population in this research was 1196 faculty members of Islamic Azad University. The sample size was 63. This study has been used questionnaire to collect data. In theoretical part of study, literature has been used and, to examine hypotheses and analysis them, field method has been used. In this study questionnaire has been used to collect data. Validity of research has been confirmed by advice of experts and professors and any needed corrections have been made. Reliability has been obtained by means of Cronbach's alpha. Data has been analyzed in two ways: descriptive and inferential procedures. Test methods in this study were as follows: chi-square, t-test, Pearson correlation, Friedman and SPSS software has been used.

9. Results and discussion
9.1. Descriptive results

Fig. 1 shows that most respondents have master’s degree.

![Bar chart showing education levels](image)

**Fig. 1:** Education

Figure-2 shows the spirit of investigation among faculty members. Most respondents have chosen low and moderate (80%).

**Fig. 2:** Spirit of research among faculty members

9.2. Inferential results

Hypothesis 1: "lack of research skills in faculty members, leads to feel a strong disinclination to do research projects".

<table>
<thead>
<tr>
<th>Factor</th>
<th>Average</th>
<th>Standard Deviation</th>
<th>T-statistics Value</th>
<th>Chi-Squared Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of familiarity with research methods</td>
<td>3.47</td>
<td>1.02</td>
<td>3.6</td>
<td>28.5</td>
</tr>
<tr>
<td>absence of training workshops in research</td>
<td>3.42</td>
<td>1.14</td>
<td>2.9</td>
<td>14.45</td>
</tr>
<tr>
<td>methods</td>
<td>3.44</td>
<td>0.95</td>
<td>3.7</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Two presented factors in Table 1 have examined lack of research skills in faculty members. According to the chi-square value of response to these two questions were non-random and intentional. According to the t-test statistics that are sufficiently large, it can be said that respondents believed both factors are effective on lack of attention to research. In other words, unfamiliarity with methods and techniques of research and absence of training workshops in research methods are effective. Pearman correlation coefficients between these two factors have been obtained 535.00 and showed a significant positive relationship between these two variables. Therefore research method workshops, increases faculty familiarity with methods and techniques of research. The Friedman test exactly was zero and showed that two factors uniformly are effective. Therefore in general it can be stated that the lack of research method skills is one of the most important factors in attention to research. Effect of qualification and experience of faculty members on their responses to the questionnaire have been tested by Kruskal-Wallis test.

Hypothesis 2: "Disregarding results of research and their application in other research projects, causes reluctance to do research projects."

Three described factors in this hypothesis are lack of communication between university and executive agencies, greater attention to theoretical research and failure to use results. According to the Friedman test, impact equality assumption of these three factors was rejected. According to respondents, these three factors in order of importance are

1. Lack communication between executive agencies and universities.
2. Failure to apply results in relevant sections.
3. Greater attention to theoretical research.

10. Conclusions

In response to H1 questions, most of faculty believes that lack of familiarity with research methods and techniques and lack of facilities for research workshops have equal effects on attention to do research.

Related information to hypothesis 2 shows lack communication between executive agencies and universities, Failure to apply results in relevant
sections, greater attention to theoretical research, in order of preference, are effective on attention to do research.

11. Suggestions

1- Organizing research meetings and seminars to express research topics and priorities and presentation results of conducted projects by faculty members.
2- More attention to research.
3- creating a mechanism for balancing research and teaching.

References

Haghighat-Monfared, the glory, the polls and the ergometer, Tehran: the study and formulation Books Social Sciences (left), R & D Centre for Human Sciences, 2013.
Journal of Islamic Azad University. Research Department, Islamic Azad University, 1999.
Khaki, G-R (2012)“ Research Methodology in Management (with a survey)”, Tehran, Fooljan publishing.
Magdi, Z., Descriptive Bibliography of Materials Research, Tehran: Librarian: Library and Information Association of Iran, 2008.
Mohammad, A., qualitative research methods, proof methods, Tehran: Publication of Sociologists.