

## THE INVESTIGATION OF INFLUENTIAL FACTORS UPON THE REINFORCEMENT OF RESEARCH INCENTIVES IN TRAINERS OF TECHNICAL EDUCATION SYSTEM (SKILL TRAINING)

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**Abstract:** *As a dynamic, intelligent and target-based system, the national skill system has two quantitative and qualitative aspects in which the qualitative development is impossible without research in the domain of skill training. The major role of technical education organizations in Iran as the primary authority of national skill system is to train skilled human resources for different manufacturing, economic and industrial sector. The realization of this objective demands more studies. The present study is a review article which aims to investigate the research activities in skill training. In a general conclusion, one could state that there is no ideal research culture and dynamic development in Iran because "research" is viewed as a marginal activity. Therefore, creation of a cultural evolution to reinforce research incentives is a fundamental activity which should be realized. In the end of present study, some suggestions were provided.*

**Keywords:** *research incentive, technical education, skill training, cultural evolution*

One of the means of development is the establishment of scientific and research-based structures and institutes so that without research, endeavors to attain significant global development indexes is impossible. Achievement of development needs comprehensive studies and their practical application in executive affairs. As Karimi (1996) stated "The world in which we live has undergone fundamental changes". The present era is the onset of the third millennium which has been called the era of thinking, knowledge and information explosion. The indexes of development have radically changed. The world is now like a global village in which information and knowledge are the most significant bases of development. In the present era, a dynamic and developed society refers to one which is constantly learning and generating knowledge. Of the significant

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characteristics of this era, one could point to change of development factors from industrial domain to postindustrial domain including knowledge, research and knowledge-based human capital.

Despite of all problems of research in Iran, creation of proper research and culture environment for development is the most significant objective of the fourth plan of development. Therefore, analysis of the current status of research and scientific culture in Iran and a comparative approach to the national weaknesses and advantages can help in depiction of expected and ideal situation of science and research-based culture of Iran. It is evident that proper highlighting of problems, damages and scientific-cultural complications in Iran can facilitate planning, policy making and proper management of processes and activities of development and provide underlying base for public cooperation and participation. It should be noted that science and research in the Iranian society consist of requirements without which the realization and precise understanding of different problems and phenomena will be impossible. One of these requirements is the contextualization of an ideal cultural structure in the society so that promotion of scientific and research-based culture in Iran might be facilitated by associated planners, managers and researcher. Therefore, provision of the proper conditions for rise of a thinking and nurturing system to introduce major thinkers should initially be done. This refers to the organization of scientific structure of Iran so that dutiful and nationally committed individuals can introduce new solutions for existing problems because development of country in all fields (i.e. economy, military, health, society, etc.) depends upon scientific progress. Without provision of proper conditions for scientific development, scientific infrastructure and creating major thinkers, there will no hope in progress in different field.

## LITERATURE REVIEW

Research and survey of the education domain refers to a set of activities through which education is analyzed based on definite scientific principles. The objective is to discover general principles or behavioral interpretation which is used to explain, control and predict educational events (Delavar, 1996). Similar studies on this subject have been provided by research institutes and governmental universities including:

Backrani (1994) studied the approach and attitudes of faculty members towards the predicaments of research activities in Isfahan Industrial University. He pointed to the lack of sufficient knowledge of the scientifically approved research methods, lack of job securities for the research activities of lecturers, lack of sufficient research budget, and lack of motivation for research activities and defects of communication networks as the most important problems of academic sector of universities.

In a study called "The Investigation of the Ways to Promote Research in Sina Educational Health Center" by Hadadi *et al.* (2007), significant solutions to improve research in this center were introduced to be continuous methodology courses,

correction of the official procedures to approve research projects and revision of scoring procedure of papers.

Karimi (2000) studied the research activities of Islamic Azad University in region 4 and from the viewpoint of faculty members. The assignment of knowledgeable managers in research units who had a deep knowledge objectives of scientific development and significance and role of the universities in the society was his first suggestion to eliminate existing problems so as to attain a proper research system.

In an era in which research is the main factor of development in all cultural, educational, economic and industrial fields, any action to clarify the significance of research and resolve its complications and problems is essential. The important issue is that what reasons might underlie the ineffective measures to develop research in Iran that aimed to reinforce the incentives of experts in this sector.

#### **THE ROLE OF RESEARCH IN EDUCATIONAL SYSTEM**

Research and survey are the bases of scientific institutions and the underlying necessity for development in information era. Essentially, any society that is planning in micro and macro levels to experience a successful transition from an industrial economy to a knowledge-based one should efficiently organize and manage research affairs. Increasing success of science to understand the purposeful and organized universe, made possible through divinely assigned capabilities to humankind and outstanding thinking potential of human beings, has introduced a new living environment for human beings.

The role of research in comprehensive and stable development is undeniable and it can be regarded as the driving force behind all significant cultural, economic, political and social domains. Despite of confession to the significance of research, this domain stillfaces numerous structural and functional complications.

#### **THE REAL ROLE OF RESEARCH AND SURVEY IN TECHNICAL EDUCATION**

One of the major factors of development in advanced countries is a distinctive attention to the research activities. As the authors believe, Iran and Islamic countries have not yet attained their true position in regard to the research domain. This failure is unbearable and unjustifiable from quantitative and qualitative perspectives. Lack of justification of the necessity of research, lack of development of the theoretical principles and their methodologies, lack of necessary facilities and tools and biased function of research centers are the primary factors of lack of progress of research domain in Iran. Unfortunately, the majority of activities in Iran Technical and Vocational Training Organization (TVTO) are focused on human resources which has led to one-dimensional educational environment. As a result, examination of research, survey of current status of research in this organization and significance of research are fundamental issues.

On one hand, scientific research has distinctive characteristics and on the other, it can lead to significant scientific endeavors and results because research is a sequence of purposeful, organized and scientific measures to rationalize and operationalize different scientific and epistemological elements. The outputs of research can be development in executive affairs as well as different domains (political, social, cultural and economic). Basically, research can lead to clear explanation of a subject and a precise discussion and organized description of functions of different organizations and systems. In research, advantages and weakness of different subjects are analyzed and functions of organizations are reviewed as a result of which more efficient planning can be done.

### **THE ASSOCIATION OF RESEARCH WITH DEVELOPMENT**

Any kind of development is basically associated with the scientific studies. The accompaniment of a high level and number of researches with advancement of industrial countries clearly proves this fact. One of the famous thinkers stated that 98% of the researches and their associated costs of scientific development were associated with advanced countries. These countries had advantageous methods and skilled labor due to their comprehensive and widespread studies. They could significantly save their resources and continuous studies in these countries have led to a status in which other countries are decades behind them.

The other association of research with development originates from its long-term and strategic essence. In this regard, research has a key role to play due to its scientific and functional nature. Due to its association with development, serious national decision and immediate planning are needed. This issue is significant from many viewpoints. First, investment in labor to obtain higher efficiency is necessary. Second, efficiency needs organized and efficient education of new methods which is impossible without scientific approaches and surveys. On the other hand, education is itself a key factor in development of technology which also has a dynamic association with scientific studies. R&D phenomenon and active R&D institutes and organizations in advanced countries are the proofs of this issue.

### **EXECUTIVE AND SCIENTIFIC DEFECTS IN RESEARCH DOMAIN**

#### **Cultural Issues**

Researches of different levels is not a part of Iranian culture. The research culture has no significant position in politics, economy, culture and society of Iran and it lacks any significance among the public, elites, managers, policy makers and planning and executive authorities. This might be due to different reasons; The most important of which is lack of need for research and lack of competition over quality and costs in all domains. Another noteworthy fact is that, despite of many problems in different areas of the society, research-based questioning and answering have not been correctly explained and practiced. However, most of present and past domestic studies emphasize form instead of content.

### **Financial Problems**

Financial problems such as the insignificant share of research in GNP, low level of investment of private sector in research activities and low efficiency of researches in human, financial and physical terms still exist in Iran.

### **Managerial Inefficiencies**

This problem is mostly due to fragmented and partial association of education, research and industry, complicated official and financial laws, inefficiency in scientific management, lack of concentration of authority in policy making, lack of regulation in executive affairs, lack of attention to research priorities and demands, holistic weakness, routine procedures, lack of futuristic vision, lack of surveillance and evaluation system of research procedure in Iran.

### **Weakness in Communication**

The most vivid aspect of the unfavorable status of research is the insignificant level of communication of research sector with economic, political, cultural and social sectors of Iran. This includes weakness in communication with dynamic world of science and technology and associated databases.

### **Weakness in Human Resources**

In regard to this problem, one could point to low number of researchers, slow rate of innovation and knowledge creation, incompetency in dealing with problems to attain significant results, low level of up-to-date among researchers, low social position of researches among others.

What is strongly needed in the current conditions of Iran is a movement of knowledgeable and experienced figures who are aware of the significant position of research, valuableness of researchers, dominating western theories and approaches in research domain as well as existing potential in logic and rationality of Iranian culture and tradition. The primary concerns of such a movement should be major national problems and dependence upon domestic labor to promote the position of research and researchers.

### **SUGGESTIONS TO RESOLVE PREDICAMENTS OF RESEARCH AND STUDY**

- First of all, no simplistic and positivistic approach in reformation plans should exist due to prevalence of preventive research-associated social, cultural, economic and historical factors and awareness of fundamental problems in national scale.
- Due to significantly low number of researchers in the society, it is strongly needed to use the potential of present researchers. In the current situation, the waste of researchers' potentials in redundant studies and impractical subjects should be prohibited.

- It is essential to do educational planning so as to introduce a new generation of researchers to the society. It is noteworthy that in our country and despite of fundamental problems in economic and social domains for development of research, there is an abundance of potentials for development of research. A correct and pre-planned usage of these potentials can be an effective step towards the realization of ideal condition of research in Iran.
- Of other significant potentials of Iran in research domain, one could point to prevalent presence of Iranian researchers in famous global research circles. Their return or cooperation can help Iran to develop its research sector and update Iranian studies to global levels and standards. This measure will not be an easy task either for the domestic researchers or non-resident Iranian ones. Some attractive factors should be provided.
  1. Creation of publication and research attractions: is significant because a researcher expects to see that the result of his endeavors is being published in a prestigious publication.
  2. Informational attraction is the second point to attend to because establishment of datacenters in the research centers provides the possibility of collection and preparation of necessary data for researchers. Facilities such as specialized libraries and continuous connection with information networks such as internet are the essentials of research.
  3. Creation of international attraction is another point to attend to. Most of Iranian researchers are interested in publication of their works in international research and cultural circles. They want to have an international feedback of their theories so as to be able to participate in the associated discussions in global scale.

It is noteworthy that research institutes need proper planning to establish connections and cooperation with the international scientific, educational and cultural organizations such as "UNESCO" and other cultural associations in the world. The domestic researchers should discuss their studies in international level and get feedback. The presence of Iranian researchers in the international meetings and conferences should be facilitated, too.

#### **CONCLUSIONS AND FURTHER SUGGESTIONS**

- Design of a non-concentrated management and planning in regions and units
- Assigning more authorities from central organizations to subordinate one to increase the budget of research projects based on the performance and potential of each province
- Establishment of informational, steering and surveillance systems for research activities and projects

- Creation of necessary infrastructure and correspondence with organizational partners in regard to research projects and resolution of legal problems
- Establishment of the research workshops for colleagues and assigning distinctive budgets for them
- Consideration of correct and expert-approved financial basis to do research projects in correspondence with other educational centers
- Proper planning to promote the educational level of teachers, lecturers and experts
- Practical and theoretical familiarization of teachers and trainers with different mythologies through in-service session, emphasis on dissertations and inclusion of lesson sessions
- Assignment of sufficient budget to do research activities by trainers and experts
- Establishment of a proper communication system in the branches of Iran Technical and Vocational Training Organization (TVTO) to use computer services, research publications and associated congresses, provision of research results in visual and audio format to update experts in due time
- Satisfaction of the needs of trainers, acknowledgement of experts and attribution of scores to their work
- Correct understanding of researches and studies among TVTO experts and trainers of all units and levels. They should have the faith that research is the basis of dynamic, efficient and modern education. If research is regarded as a fundamental criteria, it will become the cornerstone of stable development because trainers are not limited to the enclosed environment of classroom. They are in direct competition with the international scientific, educational and research circles.
- Advanced companies assign a major part of their GNP income to research capita. In Iran, the proportion of research budget is insignificant compared with advanced countries. So, top financial managers should have an investment approach to education and research and not a sector with no significant output.
- Establishment of annual congresses in "The Week of Research" in national and provincial scale to acknowledge the endeavors of top researchers and to hold research shows
- Finally, it should be pointed out that the share and attention to research and education is insignificant compared with skill training content and standards. Revision in these contents and standards as well as emphasis on the educational content of research is significant, especially in joint and practical researches. In addition, the reinforcement of research viewpoints and skills of trainers, employees and managers of Iran Technical and Vocational Training Organization

(TVTO), design and holding educational workshops and participation in prioritization of in-service educational programs should be done.

#### *Acknowledgement*

This paper is extracted from M.A. Thesis (Leila khazaei with supervision of Dr Hassan nodehi).

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