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Mini Review

The challenges of Agricultural Education and Training institutes (AET) for preparing the student population for manufacturing jobs in agricultural system of food products

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ABSTRACT:

Because of technological progresses in the information field, the education and training institutes are considered as one of the information society's members and need the proper abilities and skills for transforming the knowledge and sharing and using it more than ever. In spite of these evolutions, in the available condition, most of the agricultural education and training institutes run and compile their program based on the knowing principle, while different documentation and evidence showed that knowledge and knowing are not considered as an important issue in the stable development. The problem is the gap between knowing and acting. So in this way, our aim of the current research is to check the challenges of agricultural education and training institutes for preparing the student population for manufacturing jobs in the agricultural system of food products. The research method in the current research is the analytical and descriptive method. Considering the conducted investigations, we have said that the promotion and practical training with knowledge, impartment creating communication networks and providing experimental ambiances among the different activists can help understanding and managing the mentioned challenges' and their complexities. In this way, we helped the empowerment of the students for taking the development cycle and play active role as much as possible. In other words, it is clear that preparing the students for creating business in the society for dealing with unemployment challenges that shouldn't take place after educating, but also for realization of this work. It is necessary to provide the essential preparations which include knowledge earning, during the education.

Keywords:
AET, Challenge, Experimental learning, Entrepreneurship

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INTRODUCTION

The growth of the world is rapid. Globalization of business, permanent change of technologies and continued growth of world's population are only a few numbers of challenges ahead. Along with these challenges and concerns, the climate change creating the renewable energies and feeding the increasing population are some other challenges that we deal with them. For struggling these challenges and constraints, we need some thoughtful persons, skilled and trained labour force that is able to solve the complex problems of our society. Universities and training centers are responsible for preparing the human capital (as leaders, scientists, and skilled labour force) for solving the challenges ahead. The economic system of society deals with the lack of experienced and professional human force in technical fields annually that agricultural colleges should affect the society through the academic and technical innovations and professional human science, effectively (Greenberg *et al.,* 2003). In fact, because of the constructive changes in student's behaviour at knowledge, insight and skill's dimension and forming the general and professional abilities or required talks, the agricultural higher education is considered as a significant investment. Achieving the aims which are expected from agricultural higher education needs different factors. Also by considering the employment's constraint in public sectors and an increasing number of agricultural graduates, paying attention to self-employment has received importance more than ever. The graduates of agricultural training centers are in the same conditions. Considering that practical scientific training has been designed to form the job training in the society, the employment of agricultural training institutes are expected to be more than graduates of other higher education institutes. So accordingly, if the agricultural education systems are seeking to promote the quality and face the challenges ahead, it is necessary to change their structure and functional processes. The aim of the current research is to investigate the challenges of agricultural education institutes for preparing the student population for manufacturing jobs in an agricultural system of food products.

The challenges of Agricultural Education and Training institutes (AET)

In many countries, the main mechanism for acquisition and development of knowledge is higher education. Many managers and programmers believe so and act in the same way which is the main code of quantitative development of national expansion and rapid training opportunities. In this discussion, the institutes and universities have the basic role as the main training custodians of the professional human resources of society (Talebi and Yekta, 2008). The agricultural higher education is one of the main components of agricultural sector's education and development which has a significant role in the training of required human resources for agricultural sector. Undoubtedly, agricultural development depends on the policies, programs and especially agricultural education system and subsequently depends on the professional and committed graduates of the mentioned system. For achieving the development, at agricultural higher education, we should train the graduates which possess enough skills (Taatila, 2010). The realization of this sector's development does not take place only by using the capital in technologies in the agricultural sector, but also is a multi-dimensional work which many factors affect it. In this case, the effect of identifying the challenges and problems for improving and reinforcement of human science is undeniable.

Agriculture possesses the complex social, political, economic, ecological, Aesthetical and moral aspects. The desired dealing with complexities, lack of finality and norms, values and opposite orientations, needs the fundamental transformations in agricultural works and subsequently making basic changes in required competences for agricultural students and rural development. The aim of the training must be fulfilling

the talents, growth and incidence of abilities and competences and must not be defining the future for students. Agricultural graduates not only should have the technical and professional skills but also should have the skills of facilitating development processes such as expertise for project management, communications, and negotiation. In fact from the distant past to present, agricultural training has been done in a way that earning knowledge is equal to increasing the preservations and the practical and compatible aspects were rarely considered. On the other hand, the evolution of higher education in the last years has shown that the paying serious attention to practical training instead of insisting on theoretical sciences is a new step for practicing present day knowledges (Orman, 2014). The quantitative and unbalanced development of higher education and the lack of proper capacities for attracting university graduates have caused to change the opportunities of forming human resources, promotion of efficiency and enhancement of economy growth to critical and challenging threats. In addition, the university's graduates for entering the labour market should have the compatibility and coordination abilities for changing condition of their society (Poor and Rezayee, 2010). The criticisms which were received by agricultural higher education were caused by the lack of having the desired skills and the low readiness of agricultural colleges' graduates for entering the labour market. If we notice the training activities in our country from employment's point of view we shall end up with sorrow because, for education and training the youth, the old training technology is used which can satisfy none of the economy sectors (Farimani and Zamani, 2007). Also Movahedi (2012) in his investigation of the employments issues and problems of agricultural and development's graduates, has summarized the most important of their employment constraints as follows: the low level of technical and practical skills of graduates of development in agricultural field, the theoretical programs of university educational programs and the lack of connection between educational programs and labour market. The entrance constraints of graduates to the private sector, lack balance between the number of graduates and available jobs, the lack of connection between university and labour market. Also for entering the labour market, the university graduates should have the compatibility and coordination abilities with the changing conditions of their society. The progress of technologies changes the job opportunities every day and creates new jobs which increase the demand of entrepreneur and self-employment among the graduates (Poor and Rezayee, 2010). On the other hand, one of the challenges ahead is the graduate who does not have the individual abilities and essential skills for setting up a proper business which makes it essential to prepare the university graduates with the development of self-development culture. The challenges ahead of world's agriculture and also Iran include: trade liberalization, reduction of government's support for producer, increase of competition in universal agriculture markets, globalization, progress in the agricultural technology such as biotechnology, privatization policy and downsizing of government structure, changing in the costumer's taste of agricultural production's costumers. These are causing to receive more attention by the officials more than ever (Movahedi and Yaghoubifrani, 2012).

Creating the job opportunities for agricultural graduates is the most important concern of macro programmers, and removing the unemployment challenge, creating and improving the employment and self-employment's solution and moving forward the society development, has caused to demand training of the entrepreneur and creative people.

Preparing the university students for productive jobs in agricultural system

Although the helpful role of the higher education for agriculture is achieving knowledge and training of entrepreneur experts, unfortunately, the rate of agri-

culture unemployment graduated students is at a high level. It indicates incapability of the university in preparing the students for enough knowledge and practice at the same time. This problem shows agricultural universities to encounter with difficulties for the development of entrepreneurship among the students and graduates (Malekiand and Rostami, 2013). In other words, for the present time, agricultural domain employs 3350 people which its coefficient of changes in comparing to 50 years ago is about zero. The agricultural domain in Iran and many other countries of the world acts as an important portal for job creation, it means it possesses the generative potentials in production and employment which is incomparable with other economical domains. The authorities are concerned about achieving progress and employment in all domains, especially in agricultural domain. One of the pre requisites of today society is the appropriate reaction of the higher educational system to social, cultural, political, and economical changes based on the aim of human progress (Orman, 2014). One of the students' educational aims in higher education is an improvement of individual and specialized abilities.

Elahyari *et al.* (2009) explained that preparing graduates by entrepreneurship training is necessary but the preparation should not be after graduation also it should be during the study period and it is necessary to obviate and identify the limitations and barriers of entrepreneurship and self-employment. One of the most important enterprises in entrepreneurship development field and self-employment is influencing on their attitudes by this subject. Also, Bazrafkan and Zamani (2011) examined, the employment of educators and the role of agricultural higher education institutions; Universities and higher education institutions, must undertake missions such as the production of knowledge, training of manpower, technology development, innovation and creativity. To being on the road of development, and prevent backwardness, circumstances that are provided under which universities which can grow students who apply new technology and different responsibilities in the organization and the society. The purpose of this article, that is a descriptive and library study, is about the challenges and opportunities of higher education and educational institutions in providing skill requirements of the manpower. Finally, some suggestions for educational institutions, in order to empower students, are also presented. Carr and Sequeira (2007) believed that entrepreneurship intention has an important role in appearing entrepreneurship behaviours. Caliendo *et al.* (2011) investigated the effects of individual features on the decision to self-employment in Germany and got the result that tendency is a main individual feature which plays an essential role in self-employment (Niewolny *et al.,* 2012). For classification and determination of challenges in the employment of agricultural graduates in future, there are three following states:

Improvement state

The average of challenge marks in the future is lower than the present conditions.

Crisis state

The average of challenge marks in the future is more than the present conditions.

Stable state

The average of challenge marks in the future does not have a significant difference with the present conditions (Shakoori, 2010).The successful experience of developed countries and also some of the developing countries in passing the economic crises by agricultural progress in those countries cause to pay more attention to agriculture by other countries. Most of the people believed that students remember the activities that they do more than those that just heard. Carlend believed that learning from experiential concepts is more unforgettable than learning from traditional classes (Hakim and Dehdar, 2013; Hakim *et al.,* 2013). Experiential learning in agricultural students acquired some circumstances, which at first step everyone knows the teacher as the

basic factor in experiential learning so the higher agricultural education system should pay more attention to equip teachers with necessary skills for fulfilling the experiential learning. In investigating the existed resources, there are some experiential learning that are defined as following:

The experiential learning is a process that causes a feeling of active involvement between the inner world of the individual and that of the outer world (environment) (Beard and Wilson, 2006). Experiential learning is providing a straight contact to the phenomena and turning of the earned information to a new knowledge platform (Hakim and Dehdar, 2013; Hakim *et al.,* 2013). The experiential learning is one of the discovery learning types and defined as a sequential of events which are needed for the active involvement of the student in various subjects. The main purpose is that the student learns in the best form by active involving. The experiential learning is a basic part of agricultural education. Most of authorities believed that experiential learning possess some superiorities such as: improvement of active and criticize thinking skills, the practical experiments for progressing of job and skill, improvement of communicating skills, development of motivation and self-confidence, profound cognition of personal abilities, betterment of decision making, problem solving and judging, and also transition of learning responsibility from professor to student , which causes to increase the quality of student learning.

According to what presented, we can state that the higher agricultural education does not perform its own duty in a good manner for fulfilling the experiential and skillful learning. Then investigating essential steps in experiential learning in the current review can be a warning for the higher agricultural education in the way of promoting the education circumstances and agricultural faculty members' skills. The earned outcomes can help the improvement of educational planning in agricultural universities for beneficial education and also provide situations for achieving experiential learning (Niewolny *et al.,* 2012).

In the higher agricultural education for fulfilling the experiential learning, the professors should pay attention to the following items:

- Providing the circumstances for students to play their roles in learning the process, these circumstances should be different based on their priorities (Beard and Wilson, 2006).
- Involving the five senses of students in the learning process, because the five senses interpret the findings from outer environment and make the connection between the students' outer and the inner world then cause increasing of learning.
- Noticing to possession of student in the process of doing the educational activities, and allowing the students for performing practical activities, the professors have a facilitating role and they are responsible for directing the students in learning experiences (Arnold *et al.,* 2006).
- Paying attention to students motivation and favorites, since motivation enhances the liability of student to learning.
- Making connection between the base knowledge and previous experiences of students to their new knowledge and experiences.
- Experiencing the theoretically learned subjects during the work and practically by students (Arnold *et al.,* 2006).
- On the other hand, the experiences of the other countries (developed and developing) indicated that the best choice for preparing of educational system learners for employing in business is entrepreneurship education. The entrepreneurship is one of the best solutions for utilizing these educated people, they can engage in creating business by their educational skills (Jamshidifar *et al.,* 2010).

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Agricultural entrepreneurship concept

According to the important role of agricultural and rural progression, the agricultural entrepreneurship word entered to agricultural literature and has attracted a lot of attention, so that some countries attempted to the establishment of structures for practical developing and operating of entrepreneurship in agriculture (Movahedi and Yaghoobi 2012).

The agricultural entrepreneurship applies to all activities which help farmers to encounter with new circumstances of the economy. Base on Firlej and Vanoosthuyse, (2001) entrepreneurship progression in agriculture domain is connected to the gradual modernization of agriculture and development of farmers' various productions. On the other hand, the most important purposes in entrepreneurship progression in agriculture are renovation and restoration of agricultural structure and creation of a new agricultural environment for making and developing new jobs in the rural regions (McElwee, 2005). Agricultural entrepreneurship is for creating variety and releasing in the production of raw materials in supplying cycle of products and moving to production in special markets, providing services for other farmers and rural employed people, using agricultural capacities of farms and animal husbandry units for attracting tourists and job creation (Warren, 2004). McElwee (2005), in expressing of agricultural entrepreneurship concept and solutions for consolidation of entrepreneurship among farmers, noticed to social and economic environment of agriculture and believed that as well as the entrepreneurship is an innovation in the system, the progression of it should be fulfilled in emphasis on social aspects of the agriculture (Khosravi *et al.,* 2009).

The entrepreneurship activity in agriculture requires effort for fulfilling the activities such as data collection, appointing connection to other members of production chain continuously, identifying the market and making directive decisions. An entrepreneur in agricultural domain makes more directive decisions than a production manager who concentrates on performing and technical works, so an entrepreneur requires special technical merits such as risk management, communications, leadership, innovation and creativeness, expanded horizon and ability in the cognition of society circumstances etc. (Movahedi and Yaghoobi, 2012). Therefore progression and development of entrepreneurship in agriculture domain is one of the most suitable choices for rural progression, for achieving this state, three items should provide: 1) Consolidation of free system in agriculture domain and certain elimination of unnecessary interpositions of government 2) Fundamental investment in the field of agriculture development necessities 3) Provision of investment security and amelioration of entrepreneurship circumstances in the agricultural domain.

Consolidating entrepreneurship mentality and identifying the effective factors, especially among university students are important. The researchers believed that most part of entrepreneurship is a direct outcome of individuals' intentions and afterward activities during a special area (Orman, 2014). So there is a lot of attention from various parts on effective matters in students' intentions for involving in entrepreneurship activity or operating a new business.

CONCLUSION

Nowadays the society expects universities to progress general skills and emphasize on professional education which is appropriate for market-place. Lack of agreement between agriculture graduates abilities and the need of agriculture industrial and professional parts that they want to work there persuades us to think about changing the educational and learning methods. The real education is a method in which the learner and the teacher, their environment and their comprehension of the world are under consideration to provide an opportunity for learning by common experience process. Lack of self-employment and entrepreneurship mentality and

self-confidence, low attention to proficiency and high attention to an academic degree, office working mentality and employing in another profession, all of these indicate the inability of graduates for joining to agricultural market-place. Agriculture educational institutes should make competences for graduates to enable them act well in complex and undetermined situations and manners, opposed or different favorites and values. Some of these competences are concealed in individual attitudes, behaviours, and values; it means agricultural education, in addition to enhancing the professional competences for students that helps them in gaining positive values, attitudes, and behaviours which are related to their own fields.

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