

Evaluation of the Economic Role of University in Training the Individual Competencies

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Abstract :

The aim of this study is to assess the contribution of the Algerian University to provide individual competencies for work; In a reality characterized by the widening gap between the university and the companies. Where this latter does not give any confidence in the competence of graduates from the Algerian University. there are several studies that have shown that most of the graduates do not work in the same speciality of their diploma. Therefore this study will assess the competency of the students at the Algerian University, and assess the compatibility between the educational programs at the university level and the needs of works' positions.

Keywords: Competency; Economic Role; Algerian University

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1. Introduction

The university is the main engine of the advanced economy. Where Clark Kerr said “We are just now perceiving that the university’s invisible product, knowledge, may be the most powerful single element in our culture, affecting the rise and fall of professions and even of social classes, or regions, and even nations.” (Lane & Bruce, 2012, p. 1) This is due to they are providing of Competencies and qualified workers that play an important role in its work place in various fields.

In recent years, the government has paid particular attention to the Algerian University through its recent reforms aimed at achieving a qualitative, comfortable and beneficial structure for students. The Faculty of Economic, Commercial and Management Sciences at Setif University 1 is one of the largest national colleges in its field. And a large number of open disciplines at the level of the three phases (bachelor, master, doctorate), and this study was to evaluate the effectiveness and efficiency of the Algerian University in providing competencies capable of creativity in its positions, where the selection of the Master of Human Resources Management 2017/2018 College Economics, Commercial and Management Sciences at Setif University 1 as a model. Therefore, this study is based on the following main question:

What is the contribution of university training in the development of student’s competence?

To answer this problem, we propose the following hypotheses:

- The first hypothesis: The university training contributes to enriching the knowledge of the students;
- The second hypothesis: The university training contributes to enhancing the skills of the students;
- Third hypothesis: The university formation contributes to the modification of the professional behavior of the students.

Objectives

- Determining the participation of university training in enrichment the knowledge of the students;
- Determining the participation of university training in enhancement the skills of the students;
- Determining the participation of university training in modification of the professional behavior the knowledge of the students.

Methodology:

This study has adopted the quantitative approach. Therefore, the descriptive method has been used via reading and summarizing various theories works that related with the topic of study. Also case study method has been used via applying various statistic tests.

2. The theoretical framework

2.1. The economic role of university

2.1.1. The modern perspective of university

The modern university, with its mix of teaching and research functions, was the brainchild of the Prussian educational philosopher Wilhelm von Humboldt. In 1810, he became the founding father of the University of Berlin, which put into practice his ideas and became a model for other universities in Europe and the United States. For almost 600 years, universities had served as little more than training grounds for lawyers, clerics, and other professionals. Humboldt changed all that by making research a vital complement of teaching, by emphasizing science, by urging traffic across disciplinary boundaries, and by attempting to make the university contribute more directly to economy and society. Humboldt changed the terms of the discourse, and universities have been adapting and assimilating the model he espoused ever since. The university's role in imparting higher education is straightforward and consistently reiterated. (Shahid & Kaoru, 2007 , p. 2) The two additional roles it acquired post-Humboldt—that of conducting basic research to advance knowledge and that of contributing to the development and assimilation of technology for civilian or military uses— have been adopted partially and unevenly over time and among countries by a few elite

universities. (Shahid & Kaoru, 2007 , p. 2) For instance, universities in the United States are the leading providers of higher education in the world. More than 580,000 foreign undergraduate and graduate students are currently studying in the United States. They spend around 15 billion dollars yearly, propelling the education industry into the fifth largest export service sector in the United States. Universities in the United States are also active in a wide range of international activities, from setting up cross- country research labs to offering degree programs in foreign countries. (Clotfelter, 2010, p. 163)

Furthermore, universities sponsor activity by faculty and students in three overlapping core academic domains, each of which can yield new knowledge: (Crawley, Hegarty, Edstrom, & Garcia Sanchez, 2020 , p. 2)

- Education is the process of increasing the knowledge and skills of students, (e.g., in physics, medicine, or entrepreneurship courses).
- Research is the process of discovery at the frontiers of knowledge, and the quest for an increased understanding of aspects of our world previously unknown or imperfectly explained (e.g., through a laboratory or social science experiment).
- Catalyzing Innovation encompasses the activities of the university around creativity and synthesis, which lead to creations that have never existed (e.g., a piece of music, a sketch of a new building, an invention).

We used the term “catalyzing innovation” to denote creative activities within the university and to distinguish them from the more general sense of innovation as the translation of ideas into tangible artifacts, products, services, and systems that occur broadly in society.(Crawley, Hegarty, Edstrom, & Garcia Sanchez, 2020 , p. 2)

2.1.2. The economic role of university in sharing knowledge

Universities have significant and broad impact on society and receive substantial investments of public and private funds. External stakeholders seek to better engage universities in addressing the needs of society, particularly in economic development. (Crawley, Hegarty, Edstrom, & Garcia Sanchez, 2020 , p. 1) Thus, universities are most effective as engines of economic development when

they accelerate innovation in industry, small and medium enterprise, and government organizations through systematic exchange of knowledge. Knowledge exchange is the to-and-fro exchange of people, capacities, and ideas across the porous boundary of the university. Crossing boundaries is critical to effective knowledge exchange. (Crawley, Hegarty, Edstrom, & Garcia Sanchez, 2020 , p. 2) Moreover, higher education's traditional role and strengths lie in educating students and producing new knowledge. Increasingly, though, higher education institutions apply these functions, and take on additional roles, to generate economic growth and prosperity in the institutions' communities, regions, nations, and, in some cases, other countries. (Lane & Bruce, 2012, p. 32)

Knowledge transfer between academics and industry has an impact even at the national level, by improving the national innovation performance. Universities provide education and generate the resources and skills needed by industry to perform innovation related processes with the new knowledge. Personal direct contacts between academics and industry members are important: they strengthen the knowledge transfer to solve problems, enhance the emergence of the new ideas for innovation, and create new possibilities for new business development. (Klimova, Kozyrev, & Babkin, 2016, p. 93) Where universities, viewed as fountains of knowledge, produce the world's most important resources: young minds and an educated labor force, which in turn produce cutting-edge research and innovative ideas and products that contribute directly to economic development. Thus, universities contribute directly to a region's economic growth, making universities a highly desirable and almost essential resource for every region. (Breznitz, 2014, p. 1) Due to technology firms tend to develop near universities as a result of the knowledge spillover generated by university research. The mere existence of a university in a region, however, is not a guarantee of economic success. (Breznitz, 2014, p. 1)

Even this economic role in providing knowledge has social aspects and repercussions because those not equipped with the knowledge and skills necessary to get and keep good jobs are denied full social inclusion and tend to drop out of the mainstream culture, polity, and economy. If secondary and postsecondary educators cannot fulfill their economic mission to help grow the economy and help youths and adults become successful workers, they will fail in their cultural and political missions to create good neighbors and good citizens. And increasing the economic relevance of education should, if done properly, extend the ability of

educators to empower people to work in the world, rather than retreat from it. (Lane & Bruce, 2012, p. 186)

2.1.3. The role of university in industrial developing

The governments have noticed the important role universities have “acting as both human capital provider and a seed-bed for new firms and innovations.” Thus, an important policy tool for contributing to an effective U–I innovation collaboration is funding that allows research programs to progress. In general, academics should see collaboration with industry as an organizational skill and develop ways to do it effectively. (Klimova, Kozyrev, & Babkin, 2016, p. 92) Because of universities are an important source of a skilled labor force that is often trained through public funding. Hence, university-industry collaboration and proximity promote the formation of industry and economic growth. (Breznitz, 2014, p. 2)

The evolving links between the university and the business sector are becoming a major focus of policy as the role of technology in development expands. (Shahid & Kaoru, 2007 , p. 1)The pursuit of science has often opened doors to technology with commercial applications. Many scientific results have helped spark innovations of industrial or agricultural value. (Shahid & Kaoru, 2007 , p. 3) Innovation has become one of the driving forces behind a nation’s economic competitiveness; as such, higher education has, in itself, become a competitive advantage—one that has helped bolster the success of economic giants such as the United States during the last half of the twentieth century. As Joseph Stiglitz (2010) put it, “The [nation’s] long-run competitive advantage lies in America’s higher-education institutions and the advances in technology that derive from the advantages that those institutions provide”. Despite the growing awareness of higher education’s role in economic development activities, the resulting impacts are not easy to assess and many attempts to do so have been fraught with problems. (Lane & Bruce, 2012, p. 32)

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3. The concept of competencies

Many researchers believe that the origin of the use of the term competency is due to psychology. The 1920s were used in educational studies. This term was used more in the work of the psychologist Mc Celland in 1970; through an article entitled "examination of efficiency first examination of intelligence"; the competency means linguistically according to Webster's dictionary (Webster): "the ability to do something good," can be defined the competency as follows:

Definition 1: defined by the National Council for professional qualifications in the UK as: "The ability to apply knowledge and understanding of technical and intellectual skills to perform effectively in accordance with the standards required in the work." (BEIRENDONCK, 2004, p. 16)

Definition 2: In other words, efficiency is defined as: "coordination resulting from the mixing of many knowledge, experiences, experiences, qualifications and talents acquired over time for both the individual and the institution." (BUCK, 2003, p. 106)

From the above definitions we conclude that efficiency is: the ability to exploit resources to achieve a certain goal.

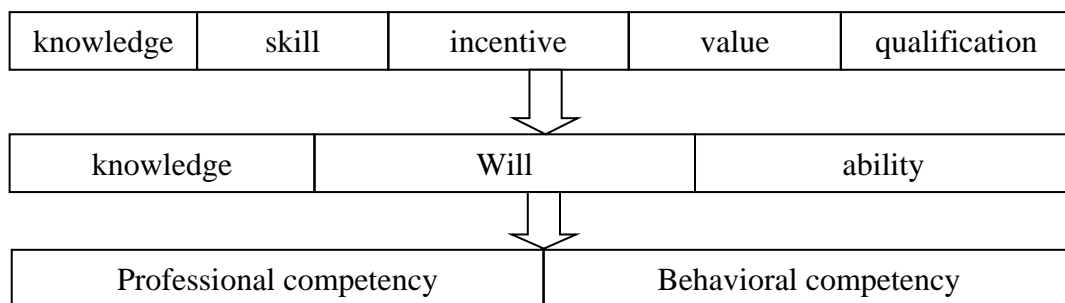
3.1. The concept of individual competency

Individual competence is defined as: "the sum of characteristics available to

an individual, which enables him to perform the work required of him with great efficiency and effectiveness". (BEIRENDONCK, 2004, p. 16)

Its concept has evolved as illustrated in the following figure:

Figure 1: The evolution of the concept of individual competencies



Source: (BEIRENDONCK, 2004, p. 20)

From the previous figure we note that the consideration of the concept of individual competence has evolved; where researchers considered the individual competence is as a combination of: skills, tendencies, values and qualifications, then the evolution of the concept to become a combination of knowledge, the will, the ability, and the latest version of the concept of competence is a simple Distinguish between technical competencies, also called professional competencies, and behavioral competencies. (BEIRENDONCK, 2004, p. 21)

4. THE EMPIRICAL STUDY

4.1. METHODOLOGY

4.1.1. Sample of the study

It is often difficult to conduct research include all members of society the subject of the study, because of the many difficulties faced by the researcher access to a single vocabulary of the original society, and the high costs that ensue from it.

the society of this study homogeneous, because these students are learning

in the same educational environment, and in order on the accuracy of the results, we preferred to choose a sample study in a way probability (random), and is therefore a random sample, will consist in its entirety of about 43 single; it is the size allows us to conduct many tests appropriate statistical.

4.1.2. Questionnaire:

We are going to adopt the questionnaire as an essential tool for collecting data for this study, and will use tools: observation and interview as secondary tools! The following is an explanation of the questionnaire tool.

Questionnaire: It is a model comprising a set of questions directed to individuals or institutions under study, in order to obtain data on the subject to be studied.

A. Axes of the questionnaire: the questionnaire included items were distributed on four axes; as follows:

- **Axis I:** For the general data of the respondent, which were: Defining the respondent, by: age, gender, internal or external residence system, satisfaction with the composition, results obtained, the current level in the master.
- **Axis II:** It is designed to measure the level of knowledge of the respondent. It includes several groups representing the basic components of individual knowledge through which the most important knowledge available to the respondent can be identified and will include a set of questions.
- **Axis III:** It is designed to measure the skill level of the respondent. It includes several groups representing the basic components of the individual skill by which the most important skills available to the respondent can be identified and will include a set of questions.
- **Axis IV:** It is designed to measure the respondent's level of behavior. It includes several groups representing the basic

components of individual behavior through which the most important behaviors available to the respondent can be identified and will include a set of questions.

4.1.3. True of the study instrument: (Validity of questionnaire)

To measure the stability of the questionnaire, was calculated Cronbach's Alpha coefficient using the program SPSS, and the results was as shown in Table 1.

Table 1. the value of reliability coefficient (Cronbach Alpha)

Variable	Questionnaire
Cronbach's Alpha	0.779

We note from Table 2 that the stability coefficient for all variables of the study is acceptable, and it is largest from the standard percentage: 0.60, where reaching a reliability coefficient for all the items of questionnaire to 0.779.

4.2. Data Analysis:

Analysis of the dimensions of competency our sample of students Since the main objective of our study is an attempt to assess **of the effectiveness of university training in the development of individual competencies**, we turn now our attention towards analyzing the three dimensions, as described above, one by one.

a. Analysis the dimension of knowledge

Table 2. Descriptive statistics concerning the *dimension of knowledge*

Item's number	Item	Mean	Standard deviation	P value	Level of significance
1	I can remember the terminology of human resources management	3,88	1,451	,000	Very significant

2	I have a special understanding of terminology	4,16	1,362	,000	Very significant
3	I can imagine examples of each term	3,05	1,327	,819	not significant
4	I can analyze phenomena related to human resources management	3,51	1,486	,029	not significant
The knowledge		3,65	,876	,000	Very significant

Source: SPSS output

Table 2 contains some descriptive statistics which help to analyze the first of the three dimensions of competency; it is the dimension of the knowledge, which was measured by four items:

- The students " can remember the terminology of human resources management", where the mean of this item reached (3.88) with a P value of (0.000). This means that it is very significant.

- The students " have a special understanding of terminology ", where the mean of this item reached (4.16) with a level of significance is a bit low.

- The students " can imagine examples of each term ", where the mean of this item reached (3.05) with a (0.819) P value. This means that it is not significant.

The students " can analyze phenomena related to human resources management", and the mean of this item reached (3.51) a (0.029) P value. This means that it is significant.

- Due to the above results, we find that the mean for the whole dimension (3.65) with a standard deviation of (0.876) and, consequently, a P value of (0.000) is very significant. Which means that the dimension of competency (the Knowledge), was practiced a High level at the students under study.

b. Analysis the dimension of skill

Table 3. Descriptive statistics concerning the *dimension of skill*

Item's number	Item	Mean	Standard deviation	P value	Level of significance
5	I can set goals for human resources management	1,81	1,419	,000	Very significant
6	I analyze the human resources management environment	3,40	1,678	,130	not significant
7	I can formulate a strategy for human resources	3,16	1,731	,541	not significant
8	I can identify job requirements	2,77	1,837	,411	not significant
9	I can specify the appropriate worker specification	1,63	1,273	,000	Very significant
10	I can identify the organization's needs of employment	3,72	1,750	,010	significant
11	I can prepare interview procedures for HR selection	1,79	1,407	,000	Very significant
12	I can develop an effective incentive system for the organization	2,44	1,722	,040	significant
The Skill		2,59	,948	,007	Very significant

Source: SPSS output

Table 3 contains some descriptive statistics which help to analyze the second of the three dimensions of competency; it is the dimension of the Skill,

which was measured by eight items:

- The students " can set goals for human resources management ", where the mean of this item reached (1.81) with a P value of (0.000). This means that it is very significant.

- The students " analyze the human resources management environment ", where the mean of this item reached (3.40) with a level of significance is a bit low.

- The students " can formulate a strategy for human resources ", where the mean of this item reached (3.16) with a (0.541) P value. This means that it is not significant.

- The students " can identify job requirements ", and the mean of this item reached (2.77) a (0.411) P value. This means that it is not significant.

- The students " can specify the appropriate worker specification ", where the mean of this item reached (1.63) with a P value of (0.000). This means that it is very significant.

- The students " can identify the organization's needs of employment ", where the mean of this item reached (3.72) with a level of significance is a bit low.

- The students " can prepare interview procedures for HR selection ", where the mean of this item reached (1.79) with a (0.000) P value. Which means that it is very significant.

- The students " can develop an effective incentive system for the organization ", and the mean of this item reached (2.44) a (0.040) P value. Which means that it is significant.

- Due to the above results, we find that the mean for the whole dimension (2.59) with a standard deviation of (0.948) and, consequently, a P value of (0.007) is very significant. Which means that the dimension of competency (the Skill), was practiced a low level at the students under study.

c. Analysis the dimension of behavioral

Table 4. Descriptive statistics concerning the *dimension of behavioral*

Ite m's number	Item	M ean	Sta ndard deviation	P value	Level of significance
13	I am excited to work in the field of human resources management	2,58	1,762	,127	Very not significant
14	I can listen to the concerns of others	2,35	1,660	,014	significant
15	I can convince others in my dissenting opinion	2,16	1,603	,001	Very significant
16	I can be careful and implement decisions	1,77	1,445	,000	Very significant
17	I can keep my smile	4,26	1,157	,000	Very significant
the behavior		2,62	,971	,015	significant

Source: SPSS output

Table 4 contains some descriptive statistics which help to analyze the third of the three dimensions of competency; it is the dimension of the knowledge, which was measured by five items:

- The students " excited to work in the field of human resources management ", where the mean of this item reached (2.58) with a P value of (0.127). This means that it is not significant.

- The students " can listen to the concerns of others ", where the mean of this item reached (2.35) with a level of significance is a bit low.

- The students " can convince others in my dissenting opinion ", where the mean of this item reached (2.16) with a (0.001) P value. This means that it is very significant.

The students " can be careful and implement decisions ", and the mean of

this item reached (1.77) a (0.000) P value. This means that it is very significant.

The students " can keep my smile ", and the mean of this item reached (4.26) a (0.000) P value. This means that it is very significant.

- Due to the above results, we find that the mean for the whole dimension (2.62) with a standard deviation of (0.971) and, consequently, a P value of (0.015) is very significant. Which means that the dimension of competency (the behavioral), was practiced a low level at the students under study.

5. Conclusion

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5.1. The results of the study

- The economic roles of universities are: providing the knowledge, participating in industrial developing, and training the individual competencies.
- Students in the study has a high level of knowledge;
- Students have a low level of skills;
- Students have some behavior in line with specialization and field of work;
- Lack of teachers rely on case study methods did not help promote understanding and comprehension of the students;
- The problem is not weak efficiency among students;
- The problem in the weakness of the relationship between the university and the economic field.

5.2. Recommendations

Evaluation the Economic Role of University in Training the Individual Competencies

- Facilitate the collaboration between universities and the firms.
- Disseminate teaching in case studies in all scales;
- Establishing agreements between the university and economic institutions to facilitate students' access to the field;
- Linking university specialties to the needs of economic institutions.

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