The Impact of Distance Learning in the Education Economics Case Study of a Sample of Public and Private Universities in Jordan

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Abstract

This study aims to identify the impact of distance learning in the education economics; to achieve this purpose the study followed the descriptive method. A questionnaire was developed and distributed for (145) faculty members from the faculties of economics, administrative sciences, computer science and information technology in the private and public Jordanian universities. The results show that distance-learning effect the economics of education in a high degree and the rationale of distance learning on economic came in a high degree. The results also shows that there are no significant differences in the impact of distance learning in the economics education from the faculty member's point of view in both the private and public Jordanian universities. Finally, the study illustrated that related to gender variable, and the academic qualification of the participant's behavior toward distance learning in the education economics.

Keywords: distance learning, economics of education, e-learning, faculty members, Jordanian universities.

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أثر التعلم عن بعد في اقتصاديات التعليم

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ملخص

هدفت هذه الدراسة إلى التعرف على أثر التعلم عن بعد في اقتصاديات التعليم، واعتمدت الدراسة على المنهج الوصفي المسحي، وتمَّ استخدام الاستبانة لجمع البيانات، وتكونت عينة الدراسة من (145) عضواً من أعضاء هيئة التدريس من كليات الاقتصاد والعلوم الإدارية وعلوم الحاسوب وتكنولوجيا المعلومات في الجامعات الحكومية والخاصة الأردنية. أظهرت النتائج وجود أثر للتعلم عن بعد في اقتصاديات التعليم بدرجة مرتفعة، وجاءت مسوغات التعلم عن بعد وتأثير التعلم عن بعد على الاقتصاد بدرجة مرتفعة، كما أشارت النتائج إلى عدم وجود فروق دالة إحصائياً في أثر التعلم عن بعد في اقتصاديات التعليم من وجهة نظر أعضاء هيئة التدريس في الجامعات الحكومية والخاصة الأردنية تبعاً لمتغيرات الجنس، والمؤهل العلمي، ونوع الجامعة.

الكلمات الدالة: التعلم عن بعد، اقتصاديات التعليم، التعلم الإلكتروني، أعضاء هيئة التدريس، الجامعات الأردنية.

Education has developed gradually and now taken so much for granted that little explicit attention was directed to the reasons for the special treatment of education. To raise education to the fullest; pay huge sums; to show schools, universities, scientific institutes and other roles of science, at the same time, there has been many inventions that have led to a major technological revolution in all areas, especially the communications field, from telegraph to satellite, making the world a small village.

Underpinning the idea of technological change as a social process is general agreement on the importance of social context and communication. And there are many time and place circumstances that prevented between the teacher and learner to be in the same place or time; the developing countries suffer from lack of education through the increasing number of population, and this makes the traditional educational instruments unable to keep up, which may lead to illiteracy, the teacher with experience may be rare, from here the searching of solutions and new methods more appropriate start; to give in science delivery as much as possible, and the most important is distance learning, and information technology has been utilized in developing the distance learning by using this technology; to get a perfect education results, through interaction, connection between teacher and student, and making studying mood similar to that in the classroom.

When countries used the technology and its tools from computers, Internet, CDs and others from technology tools, may it has an expensive cost leads some countries to search more about economics of education, although it may achieve a lot of economic and social returns from the distance learning like: product investment, main part of human capital, and increasing of growth rates ,and economic development. Teaching is an important condition and if does not enough to make economic growth and development.

The Czech Republic has benefited from its geographical location, relatively cheap and educated labor force, industrial traditions, high economic growth and political stability over the past two decades. Czech-Chinese relations have increased mainly in terms of trade and investment, as well as exploration of future opportunities and threats to their stronger relations. Global production has enabled more Chinese value-added exports

to gain access to the EU's western markets by strengthening the relationship with the Czech Republic (De et.al, 2017).

Study problem:

Education in many countries suffers a deep crisis of meaningful citizenship in country Such as wars, political tremors and economic crises which left a huge negative impact on all areas of life, including the education sector. The problem of education includes the teacher, the learner, the curriculum, the educational system, means, teaching supplies, administrative systems, These problems may be: weakness in the teachers themselves or weakness in the learner originally due to obvious imbalance in education, and other reasons may the world is moving towards distance learning. The large increase in the numbers of learners, who wish to learn, may have made traditional educational institutions unable to provide education to those growing numbers with the limited potential of existing institutions to many of learners. The costs and benefits underlying the calculation of the cost associated with education, Here comes the problem to study the impact of distance learning in the economics of education.

Study Questions:

The researcher formulated the problem in the following two questions:

What is the impact of distance learning in the education economics?

Is the impact of distance learning in the education economics different according to the variables of study?

The importance of study:

Distance learning is form of education in which the main elements include physical separation of teachers and students during instruction and the use of various technologies to help student-teacher and student-student communication and contribute to solve the problems caused by the inability of traditional educational institutions to absorb the large and growing number of learners, who are willing to learn, and providing educational opportunities for every citizen and providing different teaching methods than those in traditional education. Distance learning focuses on separating the teacher from the learner, the need to use educational media. The importance of the study emphasizes the importance of learning, especially distance learning; Education has become the difference in the development

among countries and investment has become one of the most successful investments in view of the desired returns.

Objectives of the study:

This study aimed to investigate the impact of distance learning in the education economics and knowledge of the difference in the impact of distance learning in the education economics according to variables (Gender, academic qualification, and university).

Study terms:

Distance learning: is a way of learning remotely without being in regular face-to-face contact with a teacher in the classroom, and can only be presented by technological means at certain times required by the process of education, provided that the use of technological media in the process of education. (Fahim, 2005). Distance learning known as a procedural separation of the teacher from the learner where the individual learns himself by taking advantage of all available means, especially technological ones.

Education economics: is a field within economics that focuses on two main themes: the current state of, and efforts to improve, the economics curriculum, materials and pedagogical techniques used to teach economics (Abdin, 2004). It defined as a procedural that examines the study of funds spent on educational services, the study of the material return of educational services, and possible alternatives to educational systems.

The limits of the study:

Spatial boundaries: The study was limited to the private and public Jordanian universities.

Time Limits: The study applied during the first semester of the academic year 2018/2019.

Human Boundaries: Faculty members from the faculties of economics, administrative sciences, computer science and information technology.

Theoretical framework

Distance learning:

Modern day education aided with a variety of technology, computers, projectors, internet, and many more. Diverse knowledge spread among the people. Everything that can simplify has been made simpler (Al-Khatib, 2009). The learning process is one of the methods used to understand life; Real learning is the result of the choice, and is not the result of some influences or some external incentives that change the behavior (Deschan, 2002) education based on making us the best in our area of interest, to help us reach our goals more easily. More of the fact-based knowledge is being grasped (Hyala, 2003).

It has become the easiest way they learn, because it is such a part of their life. Engaging with technology in the classroom has not only helped them learn better, but they also acquire multi-tasking skills. At this day in age, they hardly know how to learn without it. This knowledge is important, because they would be way behind in the real world without It., and open the option for him to get rid of the traditional ways in the process of education, a constant teacher with him throughout the educational process (Hezel, 2001 & Domonguez).

Distance learning is a way of learning where the learner uses modern means of communication from a computer, its networks and multimedia from image, sound, graphics, search mechanisms, cartoon libraries and Internet portals (Al-Mousa, 2002). Distance learning is the type of education that does not need a teacher to meet with the learner permanently in the classroom, but can only be present by means of technology at certain times required by the process of education, provided that the use of technological media in the process of education (Fahim, 2005).

(Rabah, 2004) believes that distance learning is a system for connecting educational materials and possibilities to learners in educational or training programs without having to meet teachers. Distance learning is an effective way of providing learning opportunities and enriching experiences to those who cannot leave work, and full-time learning who are denied formal education.

(Fahim, 2005) emphasizes that distance learning enables technology to replace a teacher who is often away from the learner during the learning process. The difference between the traditional education system and the distance learning system is that distance learning organizes the delivery of knowledge to the learner educational institution. Since the learner cannot devote to the request of science, as can be a colleague in the school system, the learner can separate from the teacher with the possibility of holding dialogue sessions or discussions, and interviews between the learner and the teacher at certain times.

Distance learning is an educational process in which education takes place in an important part of which is a person who is far from the learner in terms of time or place (Hyala, 2001). As proper scientific content and technological means. In addition, the means of communication, as well as an effective learning management system, are key to ensuring the success and sustainability of the distance learning system (Al-Dhafiri, 2004).

(Soham, 2005) emphasized that distance learning is a physical distance between the teacher and the learner. Technology used to fill the gap between the two parties to simulate the face-to-face contact. This type of learning can offer an opportunity for adults to teach. These programs can also reach those who deprived of this educational opportunity due to lack of time, distance or physical disability. These programs also contribute to modernizing the knowledge bases of workers in their workplace.

Distance learning includes all the learning styles in which the learner allowed to some degree. The flexibility of this type of learning provides an opportunity for the learner to choose the time, place, speed or even subjects to suit him, and the learner for the freedom to choose the system that corresponds to its time and material and absorptive capacity (Alghurab, 2003).

The study of Zinedine (2006) recommended inviting educational institutions, especially universities, to the importance of forming a working group; considering the possibility of establishing distance-learning centers, and developing disciplines and educational courses. The problems faced by universities and different stages of education in some disciplines due to overcrowding students, and call on the faculties of education to focus their interest in the postgraduate programs on topics related to distance education,

and urged researchers students and professors to discuss the topics of distance education, Roll and dimensions extended.

(Al-Kasji, 2012) the need for a distance learning environment within educational institutions because the performance of these institutions depends heavily on the effectiveness of the technological infrastructure and its supporting services and the quality of the design of the courses. Distance learning sponsored by teachers and other members. The evaluation of the distance-learning environment should focus on how learners feel about the overall performance of distance learning; distance learning has great value and importance.

Distance learning has many advantages that have made it an effective tool in the learning process; learning has developed, and its efficiency has increased. These advantages include: Distance learning uses a lot of audio and visual aids and teaching that may not be available in traditional systems, making education more interesting and enjoyable, and stay away from boredom in traditional education. Furthermore, Distance learning teach a large number of students without time, place, time constraints, decrease the effort in education, and the possibility of exchange of dialogue and debate. In exchange for these advantages of distance learning, there are some challenges to this learning, including: the lack of a large proportion of learners to experience the methods of dealing with ICT and educational software, and the lack of distance education Adequately, from computers, Internet connectivity, and communications (Al-Mousa, 2002).

(Zitoun, 2005) this study stressed that there are a range of physical and non-physical requirements required for distance learning. The most important of which are: the provision of computers and peripherals, electronic projectors, a network of Internet communication, and educational software that provide applications for learning management, control systems, control and follow-up network, Teacher and learner training on ICT skills, and educational software.

Education economics:

(Abdeen, 2004) Education economics is the study of economic issues on education, including the demand for education, the financing and provision of education, through formal education for continuous production over time for various types of training and development of knowledge and Mu'tah Lil-Buhuth wad-Dirasat, Humanities and Social Sciences Series, Vol. 35 No.2, 2020. skills ... and the distribution of all this present and future among the members of society.

Investments in Education is a fundamental right for everyone and key to the future of any country. Education has its price everywhere—but the only thing more expensive than investing in education is not investing in education. Inadequate education produces high costs for society in terms of public spending, crime, health, and economic growth. In contrast, the social rate of return of the economies in the first levels of education is lower than the rate of return from the higher levels of economics. The economics of education concerned with the processes in which education is produced, distributed among competing individuals and groups, the amount of expenditure on education, whether from individuals or the community, and on the methods of testing the types of education, their output and their quantity (psacharopoulos & patrinos, 2002).

The economics of education can also help to understand some of the issues related to the functioning of the education system. Everyone has recognized the role of education in social and economic development, and the financing of education is a major concern of policymakers at the national and local levels and at the household level. For different levels of education so that decisions can be made on the allocation of available resources, especially since there are other public services competing for education systems, funding methods. The types and levels of education, which estimated expenditures; so that they can study the economics of education more (Stoddard, 2005).

The evidence about the relationship between tertiary education and economic performance is less clear. Education provides development with educated human resources, the information possessed by these human forces is the result of scientific research, and as education instills many attitudes towards work, organization and society, all of which favor development in one way or another.

On the other hand, the economy provides for education For example, women education in the primary stages help the society to economic growth; by influencing the decline in fertility rates in the population (Lee & Barro, 2000).

Education, in particular distance learning, promotes the ability of the individual to research scientifically to solve society's problems and to meet growth. Education also increases the productive capacity of the learner, and hence his ability to generate income. Education increases the productivity of the society, thus increasing national income and achieving social well-being. Economic development and learning develops an individual's ability to adapt to the business requirements of any sector, and in different circumstances, Education considered a national investment because it has an active role in the development process, and attention must be paid to educational spending. The value of education, whether by the state or individuals, should not be measured only by the direct return on investment, where education provides community members with more and more opportunities to discover and develop their tendencies and abilities (Salaa, 2016).

Previous Studies:

The researcher referred to previous studies related to the subject of the study:

(Issan & Al-Ani, 2007) The aim of the study was to investigate the elearning situation at the college of education concerning its advantages and disadvantages from students' viewpoints. Also the study aimed to show if there were any significant differences at $(\alpha=0.05)$ between students' viewpoints related to their gender, specialties, level of study year, grade point average, residency, knowledge in computer, attended courses in E-Learning and hour number average of using internet weekly. Data were obtained from (165) students represented of (17.06%) of total population. To collect data, a questionnaire consisted of (46) items represented advantages and disadvantages uses of E-Learning. Using Chronpach-Alpha, the reliability of the questionnaire was (0.775). The results indicate that one of the most advantages of E-Learning is to increase cooperative learning space, narrowing the gap between student-teacher and student-student interactive through discussion-board, and developed their computer skills. According to disadvantages, the results of the study showed that the luck of, and insufficient number of computer equipment and facing difficulties in university's site connection.

(Al Saadat, 2005) this study aimed to investigate the possibility of using distance learning in the programs of the Faculty of Applied Studies and Community Service at King Faisal University. The sample of the study consisted of (105) students in the College of Applied Studies and Community Service and a questionnaire vision formed from four axes. The result of the results is the use of distance learning in the programs of the Faculty of Applied Studies and Community Service.

(Al-Jundi, 2002) The study aimed for revealing the role of videoconferences in a live broadcast linking the sender and the receiver in the distance learning process for faculty members in some Saudi universities. The study sample consisted of (240) faculty members in some Saudi universities of both sexes. That the male faculty members with scientific specialization and the several years of experience more than five years more positive towards the use of video conferences in distance learning.

(Salaa, 2016) The goal of such research is to study the different relation between Education and Economy from both sides: The theoretical and the practical one. To know how much education can be as beneficial to the economic progress as a sample Algeria. Via measuring the economic return from the educational invest, a quantitate measuring. The study sample consisted of (404) workers from different regions of Algeria without specifying the place of residence (direct questionnaire on gender, age, wages, years of study, experience). The study concluded that the educational investment has its calculated cost, Economic development as a productive investment, and a major part of human capital.

(Hayawi & Dahir, 2012) this study aimed for measuring the rate of economic return on human investment in general and education in particular, The study sample consisted of (200) form on a number of students of the Faculty of Management and Economics and the Faculty of Arts at the University of Duhok. The study found that spending on university education has the effect and the great return of The economic aspect of the state.

(Paul et al., 2014) Open and Distance Learning universities have a missing mission if they fail to provide socio-economic development to all of society. Higher education considered as the panacea to socio-economic development by nations, the world over. It brings to the individual mental

treasure, knowledge and skills that are useful in the development of a country and hence, it is the bedrock to socio-economic development. The philosophy of ODL that include, among others, access, flexibility and free choice by learners is its competitive advantage and is the centerpiece of societal improvement. For socio-economic development to be achieved, large numbers of people in society, including women, have to be highly educated to capacitive them with knowledge of high standards of health, disease prevention, participation in political and economic activities, farming, Self-reliance skills, among other things. ODL meets this role of equipping society with higher education knowledge and skills that are requisite for socio-economic development.

(Agiomirgianakis et al., 2018) This paper attempts to quantify the impact of university expenditures on the regionally produced product (GDP). More specifically, the researchers focus on the expenditure effects of the Hellenic Open University on the GDP of the 13 Greek regions. In our analysis, the researchers distinguish between direct and indirect effects by identifying as direct effects all first expenditures incurred by the HOU while they identify and subsequently calculate as indirect effects the increases in local output caused by the interactions of different sectors of the regional economy. For the calculation of indirect effects, they use the input–output methodology. An input–output system shows the intermediate transactions between sectors and the primary inputs, as well as, the last demand of each sector.

(Rupande, 2015) Trinadad and Tobago stand out as typical examples of countries which were radically transformed by human capital development from the once "plantation economy" to an exporting industrialised nation. Education and sustainable development are intricately woven, but what is obvious is that basic education is the backbone of a nation's ability to develop and achieve economic and sustainability targets. Higher education principally links workforce development to economic development by matching instructional programmers to the needs of industry. Work related learning opportunities need to be availed to drive the economy, and this is the niche that Open and Distance Learning ought to fill in. The advent of knowledge-based economies are giving comparative advantages to nations that thrive more on technical innovations and the competitive use of knowledge than the ones that depend on natural resources or cheap labour.

(Li & Chen, 2012) This article aims at analyzing the economies of scope of distance education (as an educational output) in Chinese research in distance education programs offered by Chinese research universities. The study found that there are economies of scale in distance education; and there are weak cost complementarities between distance education and research output, meaning that distance education and academic research can promote each other to reduce the costs in Chinese research universities.

Comment on previous studies:

The previous studies examined distance learning in universities (al saadat and Al-Jundi, 2007), while some studies dealt with the subject of the economics of education (Salaa, 2016), and measuring the rate of return on Investment in education (Hayawi and daher, 2012). The present study deals with the variables of distance learning and economics of education and reveals the impact of distance learning in the economics of education from the point of view of faculty members in Jordanian universities.

METHODS AND PROCEDURES

Research Method:

This study based on the descriptive to achieve the aims of this study to find the impact of distance learning in the education economics.

Study Society:

The society of study consisted of faculty members From the faculties of economics, administrative sciences, computer science and information technology In the private and public Jordanian universities.

The sample of study:

The sample of study consisted of the sample of study consisted of (145) faculty members From the faculties of economics, administrative sciences, computer science and information technology In the private and public Jordanian universities. Where (93) members of public universities namely, in the University of Jordan (39), Yarmouk University (33) ,and the University of Science and Technology (21), in addition to (52) members of private universities, namely: Jadra University, Philadelphia (19), and Al Zaytoonah University (16) members. The following is the distribution of the sample of the study according to the variables (gender, academic qualification, university

| Variables | Category | Frequency | Percentage | |
|---------------|--------------------|-----------|------------|--|
| | male | 118 | 81.4 | |
| gender | female | 27 | 18.6 | |
| | total | 145 | 100.0 | |
| | M.A. | 21 | 14.5 | |
| Qualification | Ph.D. | 124 | 85.5 | |
| | total | 145 | 100.0 | |
| | public | 93 | 64.1 | |
| University | Jniversity private | | 35.9 | |
| | total | 145 | 100.0 | |

Table (1) distribution of sample members on the study variables(gender, academic qualification, university)(n = 145)

Study instrument:

To meet the study aims, the impact of distance learning in the economics of education, a questionnaire was built to collect data by previous studies (Salaa, 2016; Saadat, 2005). The questionnaire consisted of two parts, The first part included the personal variables of the study sample (gender, scientific qualification and the type of university). The second part consisted of (27) paragraphs, divided into two areas: the rationale of distance learning (11) and the impact of distance learning on the economy (16) paragraph.

Instruments validity:

Relied on content validity (validity of the experts) in order to find out the validity of the questionnaire, by presenting it in its preliminary form to a committee consisted of (8) exports from the field of the economy and economics of education, to ascertain the validity of questionnaire items, and the accuracy of resolution wording items, and the accuracy and clarity of the item. In addition, the relevance of each item to its domain, its suitability to

achieve the objective for which it was prepared, and to delete, add or modify any suggestions sound appropriate. Therefore, upon taking the experts views and suggestions in consideration, few items were added, ,deleted and removed by the arbitrators based on the consensus of the majority of the experts on the amendment procedure and the finalization of the questionnaire.

Instrument Reliability:

Cronbach's alpha equation was applied to all study axes and the tool as a whole, the internal consistency coefficients ranged from 0.90 to 0.97, the most prominent of which was the field of application of the sensitivity component of the problems and the lowest of the degree of application of the fluency element. Cronbach's alpha was for the total sum (0.97), Table(2) shows that.

| Domain paragraphs | No. of item | Cronbach's alpha |
|--|-------------|------------------|
| Rationale of distance learning | 0.90 | 0.88 |
| The impact of distance learning on the economy | 0.97 | 0.96 |
| Instrument as whole | 0.97 | 0.95 |

Table (2) reliability coefficients of the study instrument in the
Cronbach's alpha method for all study axes

Table (2) shows that the internal consistency coefficients ranged from 0.90 to 0.97, the most prominent of which was the field of application of the sensitivity component of the problems and the lowest of the degree of application of the fluency element. Cronbach's alpha was α for the total sum (0.97).

Correct the resolution:

The questionnaire consisted of (27) paragraphs. The Lycert scale was used to measure the five-point scale to measure the opinions of the sample members. $(\sqrt{})$ To the answer that reflects their degree of approval. The following classification based on the following means: less than 2.34 low, from 2.34 to 3.66 medium, from 3.67 to 5.00 high.

Statistical processing:

To answer the study questions, the following statistical treatments were used Statistical Package (SPSS). The frequency and percentages of the personal variables of the study sample were calculated and Cronbach's alpha equation was applied to get the reliability of the internal reliability. Calculation averages and standard deviations were also calculated for all fields of study and paragraphs Dimensional and general mean, and (MANOVA) to detect differences in the fields of study according to the variables of gender, Qualification and University, and ANOVA analysis of the total score of the tool.

Results of the study and discussion:

• This section includes the results of the study aimed at investigating the impact of distance learning in the education economics" The First question is: "What is the impact of distance learning in the education economics?" To answer this question, calculation averages and standard deviations were calculated for all fields of study and the field.

| Domain paragraphs | Means | Std. deviation | Rank | Degree |
|--|-------|----------------|------|--------|
| Rationale of distance learning | 4.06 | 0.30 | 1 | High |
| The impact of distance learning on the economy | 3.79 | 0.28 | 2 | High |
| The general average of all fields of study | 3.90 | 0.17 | | High |

 Table (3) Means and standard deviations for all fields of study

Table (3) shows that means and standard deviations of the study domains. The most prominent of these were the field of "distance learning" with an average of (4.06) was high, while the mean of the field of "the effect of distance learning on the economy" (3.79). The overall average was 3.90 and high. This is probably because distance learning improves individual education and improves productive productivity. Distance learning is an economic investment in human resources, contributing to the achievement

of self-material, and reducing the serious depletion of physical and human capital resulting from student migration to Outside to receive the flag.

This result of the study agrees with the result of the study (Salaa, 2016) which showed that educational investment has calculated cost, but also its economic return as a productive investment and a major component of human capital. The results of the present study also agreed with most of the results of previous studies such as Paul and et al., 2014, Rupande, 2015 & Li & Chen, 2012: Agiomirgianakis et al., 2018.

Results related to answer and discuss the second question: Is the impact of distance learning on the economics of education different according to the study variables? In order to answer this question, the means and standard deviations of the study domains were extracted according to the variables (gender, qualification, university) and (MANOVA) to detect differences in fields according to variables (gender, university, qualification). The ANOVA then applied to detect differences on the total score according to the studied variables.

| Independent variable | Category | Domain paragraphs | Mean | Std. Dev |
|-------------------------|----------|--|------|----------|
| gender | male | Rationale of distance learning | 4.07 | 0.29 |
| | | The impact of distance learning on the economy | 3.78 | 0.27 |
| | | Total | 3.90 | 0.18 |
| | female | Rationale of distance learning | 3.98 | 0.36 |
| | | The impact of distance learning on the economy | 3.84 | 0.30 |
| | | Total | 3.90 | 0.17 |

 Table (4) Means and standard deviations of study variables (gender, qualification, university)

| Independent variable | Category | Domain paragraphs | Mean | Std. Dev |
|-------------------------|----------|--|------|----------|
| | | Rationale of distance learning | 4.03 | 0.30 |
| | M.A. | The impact of distance learning on the economy | 3.79 | 0.25 |
| | | Total | 3.89 | 0.15 |
| qualification | | Rationale of distance learning | 4.06 | 0.30 |
| | Ph.D. | The impact of distance learning on the economy | 3.79 | 0.28 |
| | | Total | 3.90 | 0.18 |
| | public | Rationale of distance learning | 4.04 | 0.30 |
| | | The impact of distance learning on the economy | 3.77 | 0.27 |
| | | Total | 3.88 | 0.17 |
| university | private | Rationale of distance learning | 4.09 | 0.30 |
| | | The impact of distance learning on the economy | 3.83 | 0.28 |
| | | Total | 3.94 | 0.18 |

Table (4) shows that there are differences in means between the computational parameters of the "rationale of distance learning and the effect of distance learning on the economy, depending on the variance of gender, qualification, and university type variables. To confirm these differences (MANOVA) and (3-Way-ANOVA) were applied, tables (5) and(6).

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|---------------|---|----------------|-----|----------------|-------|---------|
| Source. V | Domain paragraphs | Sum of squares | Df | Mean square | F | Std.Dev |
| gender | Rationale of distance learning | 0.194 | 1 | 0.194 | 2.127 | 0.147 |
| | The impact of distance learning on the economy | .0860 | 1 | .0860 | 1.118 | .2920 |
| qualification | Rationale of distance learning | 0.008 | 1 | 0.008 | 0.087 | 0.769 |
| | The impact of distance learning on the economy | .0100 | 1 | .0100 | .1290 | .7200 |
| | Rationale of distance learning | .098 | 1 | .098 | 1.076 | 0.301 |
| university | The impact of distance learning on the economy | .119 | 1 | .119 | 1.557 | .2140 |
| The error | Rationale of distance learning | 12.883 | 141 | 0.091 | | |

Table (5) The results of (MANOVA) to detect differences in the fields of study according to gender, university type, qualification variables

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| Source. V | Domain paragraphs | Sum of squares | Df | Mean square | F | Std.Dev |
|--------------------|---|----------------|-----|----------------|---|---------|
| | The impact of distance learning on the economy | 10.807 | 141 | 0.077 | | |
| | Rationale of distance learning | 13.177 | 144 | | | |
| Corrected Total | The impact of distance learning on the economy | 11.021 | 144 | | | |

Table (5) shows that there is no statistically significance at the level of significance (α 0.05 0.05), depending on the gender variable, qualification, and the type of university in the field of study, where the F values did not reach the significance level (α 0.05 0.05). This indicates the agreement of all members of the study sample on the role of distance learning in improving learning outcomes and the economics of distance learning.

 Table (6) Results of ANOVA to detect differences on the tool as a whole according to variables (gender, qualification, university)

| Independent variable | Sum of squares | D.F Square mean | | F | Sig. |
|-------------------------|----------------|-----------------|-------|--------|-------|
| gender | 3.79 | 1 | 3.79 | .0.001 | 0.972 |
| qualification | .0090 | 1 | .0090 | .3000 | .5850 |
| university | 0.111 | 1 | 0.111 | 3.652 | 0.058 |
| The error | 4.267 | 141 | 0.030 | | |
| Corrected Total | 4.382 | 144 | | | |

Table (6) shows that there are no statistically significant effect on the gender, scientific qualification and university type variables. Because the F values did not reach the significance level (α =0.05). This is due to the agreement of the study sample members that the introduction of technology as an integral part of the educational process is great benefit in raising the cultural level of students and improving the educational process that develops the economics of education.

Recommendations:

- Encourage the application of distance learning because of its many advantages, including communication among students, accessibility to materials related to the electronic course and improve the economics of learning.
- Conduct further studies looking at the relationship between distance learning in the economics of education.

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