

## **Future justification for the shift towards the knowledge based economy in Jordan from the educational experts' viewpoint**

Dr. Mohammad Saleem Al-Zboon, Faculty of Educational Sciences Zarqa University

Dr : Rada Al mwadiah, Faculty of Educational Sciences Zarqa University

Dr Abdulsalam Al Jaafreh, Faculty of Educational Sciences Zarqa University

Dr. Insaf Al-Rabdi, Faculty of Arts Yarmouk University

Dr. Manal Mohammad Alshaiekh Ministry of Education

### **Abstract**

Knowledge was associated with human in his early beginning and was developed with him as his awareness was deepened till it reached its highest levels. Nonetheless, what is new nowadays is that it affects socioeconomic life as well as lifestyle in general, due to the technological and scientific evolution and the changes resulted in different life aspects. Whereas, the last twenty five years of the twentieth century faced one of the greatest changes in life; it was the third change after the emergence of agriculture and economy. This change is represented in an evolution in science and high- tech in the fields of electronics, nuclear power, physics, biology, and astronomy. Thus Telecommunication evolution had a pioneer cause of this change; where it enabled the human to seize power of nature to the level that knowledge development factor has the greatest effect on life compared to other factors: natural and physical. Information has become a major and significant economic source; it is also the new strategic source in economic life which supplements natural resources. Information technology, currently, forms the basic element in economic growth. With this huge development of information systems, It became one of the most important aspects of the growth of global economy (Diab, 2004).

### **1.1 Introduction**

Knowledge role in the success of business organizations has developed especially with its contribution in changing these organizations into the new global economy known as knowledge economy. It asserts cognitive and intellectual capital as well as competition through human abilities more than traditional elements (land, money, and work). Moreover, it has a decisive role in changing organizations into knowledge communities (Al-Quabaisi, 2005).

This kind of national capital, which is known nowadays as the knowledge economy or the new economy, expresses the knowledge accumulation in different socioeconomic, political, scientific, and military fields. It achieves actually huge reckoned monetary benefits as well as huge profits with known cost sometimes. Quantitative frame of knowledge is determined by a group of component elements, which contributes in its production in many bodies such as, universities, research centers, scientists, and scientifically qualified people. These elements are considered, collectively or individually, one of intangible inputs which lead to produce tangible elements with material value (outputs) that can be circulated (Almhana, 2005).

Modern economy (knowledge economy) occurrence is based on important scientific revolutions: computer and information technology. These revolutions, which became a new knowledge by itself, developed every life aspect very quickly. Economy was one of important social system elements that responded and blended with these revolutions especially the computer revolution to form a great power. Computer and information revolution nourishes economy with speed, penetrating borders, narrowing distance and making movement easy. Economy provides it with the appropriate material support, develops its infrastructure, and spreads it. (Alaban, 2000).

Add to mention, that Knowledge economy is relatively a novel concept; based on glorifying the human, his brain and his creativity in addition to taking advantage of the amount of information provided by modern telecommunication. Therefore, the educational system with its general structure and private structure comes out in addition to the role that provides students in general education with higher thinking skills that enables them to understand, analyze, deduct, rearrange, and develop information in order to be subject to competition and marketing. So that, Ministry of Education should reconsider its educational system, staff role, interactions between obscure teaching methods, education environments, society awareness about changing into knowledge economy, and decision makers awareness about setting policies and needed legislations and adapting the change

process in order to be a knowledge society. Education development requires the preparation of manpower to fit the era of telecommunication revolution. Computer usage and English language knowledge skills are considered one of the important skills in this era and this was confirmed by the king in many situations (Ammar, 2000).

According to the aforementioned, knowledge economy is the one depends on knowledge. It is based on the dominating and the used human factor in which the knowledge generating and its investment form the major role in forming the revolution. Revolution in knowledge economy is generated by human capital not by machines only and thus knowledge economy replaced machines economy for producing fortune in societies. Workers start analyzing symbols like designers, researchers, analyzers, and bankers who have the knowledge and they are called knowledge workers who produce knowledge (Areen, 2003). This clarification allows the differentiation between two types of this economy. The first is knowledge economy which is based on information because they are the only element in the process of production. They are also the only product in this type of economy. Information technology forms production methods and they are determined by market opportunities and fields. This economy is information or symbolic economy as well as post industry economy. The second type is knowledge based economy in which knowledge play a valuable and important role in economy. Nevertheless, the new thing is that the size of knowledge in this economy is larger than ever and deeper than before. In former times, knowledge was used in altering available resources into goods and services within tight limits. Nowadays, there are no boundaries at all in this type of economy and new resources are created. It does not depend only on the available resources it represents one of the important production elements or the large entrance in the production process compared to other material inputs. Furthermore, it plays a role in marketing; knowledge means information, expertise, researches, studies, technology, managerial systems, and individual's skills. This means that knowledge here is wider than being just information and thus training, orientation, teaching and learning human development become important. Although the difference between these two types, they both stress the need for human capital, which is skills and expertise of the manpower (Zarnouqa, 2001).

## 1.2 Basic features of the society based on knowledge are

- Increasing public expenditure allocated for knowledge at schools, universities, and research centers and to spend wisely on elementary school learning
- Stressing the role of family, school and other community institutions in forming a human capital good for the society as well as preparing the individual in order to be a good citizen.
- Contribution of private companies to establishing knowledge economy whereas a part of training and education became for its employees the thing that affect positively on their productivity at work
- Providing school students with the appropriate higher education to spend and shop wisely as well as to deal wisely with money.
- Collaboration of all society sectors and organizations in order to reach knowledge economy and depend on work collectively not individually (Gharaibeh, 2003).

It is important in this field to confirm that knowledge economy has many features: it is of high quality seeks perfection, it has intensive knowledge based on investments in manpower considering it as intellectual and knowledge capital, it depends on qualified, trained, and specialized workforce, it pursues constant learning and training as well as re-training. Furthermore, it is so flexible, quick, and changeable, it develops to meet the changing needs, and it is also characterized by openness and global competition. Knowledge economy depends on an active marketing system in order to sense market and customers' needs; the economic activity moves from producing and manufacturing goods into producing and manufacturing knowledge services in addition to invest renewable energy. It leads to an increase in income for workers in industry when their qualifications and expertise are high and various; it also invests IT and communication effectively in order to build informative and communicative system which is speedy, accurate, and responsive. Moreover, it activates R&D as change and development engine (Mu'taman, 2004).

When knowledge is in the right place, then it should be the basic motivator for all knowledge economy activities. This knowledge development of its core position in knowledge economy requires paying attention to some major differences of what economists used to when they handle commodities. Knowledge is like a commodity can't be run out because of consummation as in the case of consuming other goods. In the contrary, there is a new knowledge when the use of the mind and thinking is increasing. Knowledge economy is a prosperity not rarity economy; knowledge is for all people can't be monopolized. It is also like a light; weightless and senseless and this provides it with the ability to move flexibly. Knowledge society is considered one of the most important methods of knowledge economy which is the society that seek the answer of WHY? And WHO? Than knowing

HOW. Which means knowing the nature of science and society as well as relationships more than facts? In this society, the individual or the citizen knows; he/she gets the knowledge through clear institutional and trustworthy procedures. Internet role is defined by that it is to get knowledge and to deal with it; the importance of dealing with knowledge economy is manifested by what is known today of accelerated growth and investment in technology. Traditional methods are no longer able to keep up with development and contribution to comprehensive development effectively and these leads to increase the need for creative initiatives that prepare the citizen for constant learning development opportunities that fit his/her present and future needs and enable him/her to contribute to comprehensive development in his/her society. (Alomari, 2004)

### **1.3 Knowledge economy requirements:**

Knowledge economy requires qualified human resources with high levels of education and training according to updates as well as high levels of enablement and focus on professional growth, constant self learning, communication, creativity, problem solving, and decision taking in addition to flexibility and the ability to move from one profession to another. So, schools and other educational institutions have the responsibility to prepare generations and qualified staff who are able to bridge the gap and to deal with the new economy data especially in technology and media. They also should not throw the responsibility over government; they should participate with all sectors in this field. Moreover, there should be direct communication among schools, universities, and institutes to prepare future generation able to push forward. These institutions should create the appropriate environment for the educational society in order to develop, prosper, apply, and publish in addition to facilitate e-learning and remove the barrier of fear of this intimidating name in order to create what knowledge society to be the base of knowledge economy.

Regarding the importance of knowledge economy and the unclearness of its concept as well as justifications to adopt it, this study came as an attempt to identify future justifications for moving towards knowledge economy in Jordan from the perspective of educational experts.

### **1.4 Study Objectives and Questions**

The study aims at identifying the future justifications for moving towards knowledge economy in Jordan and this is by answering the following question:

What are the future justifications for moving towards knowledge economy in Jordan from the perspective of educational experts?

### **1.5 Study importance and justifications**

The importance of this study is in the role that knowledge economy plays in the progress of the society. This importance was in the attempt to identify the degree of interest of educational experts in knowledge economy and to know how serious they are to make it important in education through directing the educational system in Jordan toward this economy and adapting the project of developing educational process. It is expected that people who are in charge of educational process in Jordan will benefited from this study as well as makers of educational policy and curricula.

### **1.6 Study importance and justifications:**

The importance of this study is in the role that knowledge economy plays in the progress of the society. This importance was in the attempt to identify the degree of interest of educational experts in knowledge economy and to know how serious they are to make it important in education through directing the educational system in Jordan toward this economy and adapting the project of developing educational process. It is expected that people who are in charge of educational process in Jordan will benefited from this study as well as makers of educational policy and curricula.

### **1.7 Study terms**

- The educational literature, related to the subject, has been reviewed in order to determine the conceptual frame of the study. Basic terms and concepts related to the study were determined as follows:
- Knowledge economy: it is the economy which is about getting knowledge, participate in it, use it, invest it, create it, and produces it in order to improve the quality of life to be more responsive to globalization, IT, communication, and global knowledge challenges as well as sustainable development in its wider or more comprehensive concept. (Mu'taman, 2004).

- Educational experts: they are, in this study, higher leaders at the Ministry of Education: top managers and specialized education managers.

### **1.8 Previous studies:**

As for Krogh et al (2001) study “take the ultimate advantage of your companies’ knowledge: a strategic framework” showed that in the light of knowledge economy, the key for competitive advantage and high revenues in industry is how can the organizations create knowledge and share it. In addition, the goal of creating knowledge is to reinforce potential creations. The study also pointed out four knowledge strategies contribute to reinforce creativity: Leverage strategy that stresses to distribute knowledge among organization fields in order to enhance creativity, Appropriation strategy which stresses the alteration toward new knowledge from departments toward reinforcing future creativity, Probing strategy that stresses at creating a new knowledge in order to create the process and radical production, and Expanding strategy that stresses at creating products through the current knowledge.

Yunus (2001) study:”education reformations in Malaysia” aimed at demonstrating the reformation of education in Malaysia. It talked about Malaysia agenda in late nineties; it implied the alteration from industrial economy into knowledge economy. So, the most traditional purpose of education is to form the learner’s personality. It is important to reevaluate and if the vision of the nation about 2020 came true, then the educational program needs a basic change in order to create educated, technical, and intellectual work force in addition to the fact that education culture should move from being a culture depends on memorizing into a creative, knowledgeable, and think full culture as well as an interested generation.

Malhotra (2003) study “measuring knowledge resources” was applied in USA as an activity for UN in social and scientific activities. It aimed at forming a general frame, basis, and standards to measure knowledge management as well as building appropriate scientific models and developing the abilities of the public sector in this field. The study resulted to: determine a group of models and standards to manage knowledge and information in the public sector in order to reinforce the ability of the public sector to benefit from from the programs of managing knowledge and information in addition to focus on the concept of knowledge economy without exaggeration when looking at knowledge management as economic concept. The study calls for not to neglect the human side in all activities and stages of knowledge management whereas it represents a critical element for all activities.

Haidar (2004) study “new roles for education institutions in the Arab world in the light of knowledge society” aimed at deducting the new roles imposed by knowledge community on education institutions in the Arab world in its two levels: general and university education. The researcher resolved to the fact that knowledge community characteristics are: specialized knowledge, education communities, team working, investigation, continuous education, telecommunication technology, and globalization.

The researcher clarified that education is one of the most important factors that affect building knowledge community. He also showed the current failure aspects of education institutions in the Arab world to keep up with knowledge community. Then, he deducted the new roles of Arab world education institutions to prepare educators for a knowledge community. Finally, he included the suggested roles of education institutions in the Arab world and determined them and they are: switch to knowledge radiation centers in the surrounding society, present high level specialized knowledge which helps the learner to enroll in a profession or a job in addition to present specialized academic programs, which are extensive and flexible to meet the needs of field workers who work in different professions to develop their skills regularly. This is to keep up with knowledge updates. Furthermore, one of the roles is to transform to education communities in which learners share the formation of joint vision, message, and goals to achieve. They also commit to team working, collective working, and experiments to achieve constant enhancement. Soutri (2005) performed a study titled: “knowledge economy and higher education in the Arab world”. The study aimed at analyzing the relationship between knowledge economy and higher education in the Arab world by answering the following question: what is the effect of knowledge economy on higher education? Can higher education in the Arab world keep up with knowledge economy? The results of the study showed that knowledge economy has effects on higher education such as partnership between higher education institutions and work places as well as making universities as scientific research centers and producing knowledge.

To conclude, there are many Arabic and foreign studies searched knowledge economy. The researcher took advantage of these studies to set goals for the current study and its questions and procedures as well as consolidating results discussion. The study targeted a group of experts and specialists in the Ministry of Education, who are able to set plans and understand the future as well as expecting what will happen. What characterizes this study is that any of the previous studies referred to future justifications for transforming to knowledge economy.

## 1.9 Method and procedures

### Study methodology and tools:

The researcher followed the analytical descriptive methodology to perform the study:

### Study community

The community of the study consists of 19 managers in the Ministry of Education and 37 director of education in education directories in Jordan

### Study sample

Study sample consisted of 20 educational experts selected from the study community using the intentional way. Some standards were considered: experience, scientific and intellectual excellence in education, and diversity of leadership centers.

### Study tools

#### A tool for this study was prepared according to the following steps:

Review literature related to study subject, investigate some studies that dealt with future and expectations of what might happen or the reasons why something is being focused on, and perform an exploratory study aimed at getting paragraphs that represent future justifications for transforming into knowledge economy. Delphi method was used to identify experts and planners who are related to the study in order to reach future justifications for the transformation toward knowledge economy in Jordan and this is by two rounds.

The answer was designed according to Likert quintet scale: strongly agree= 5 degrees, agree= 4 degrees, neutral= 3 degrees, disagree= 2 degrees, and strongly disagree= 1 degree.

For analyzing data, the researcher arranged arithmetic means for paragraphs as follows:

Means from 4 and higher represent high score while means 3- 3.99 represent medium score and lower than 2.99 represent a low score.

The researcher determined study fields that formed the tool of the study through arbitrating questionnaires which are related to the study fields. He set a number of paragraphs under each one of the fields included within the tool. The tool of the study consisted initially of 50 paragraphs distributed on experts in the first round and it reached 40 paragraphs in the final stage after performing the second round. This can represent some future justifications to transform to knowledge economy in Jordan. There are four justifications; ten paragraphs for each field and these justifications are: political, economic, social, and cultural.

### Tool validity

Tool validity was investigated by presenting it at a committee of arbitrators and experts of Jordanian Universities' professors from different educational specialties in order to benefit from their opinions about the affiliation of paragraphs and if they are appropriate for the determined fields in addition to add, delete, and modify what they see appropriate.

### Tool reliability:

In order to investigate tool reliability, the reliability coefficient was calculated by internal consistency method using Cronbach Alpha equation. Reliability coefficient amounted to 0.92 and this rate was considered acceptable for study purposes. Table (1) shows that.

Table (1) internal consistency coefficient Cronbach Alpha for tool fields

| fields                  | Reliability coefficient |
|-------------------------|-------------------------|
| political justification | 0.88                    |
| economic justifications | 0.87                    |
| social justifications   | 0.86                    |
| cultural justifications | 0.85                    |
| all justifications      | 0.92                    |

## 1.10 Statistical treatment

In order to answer the study questions, appropriate statistical treatments were performed after inserting data into the computer to statistically treat them. The following statistical methods are used: percentage of experts' responses in the first and second rounds for each paragraph of the questionnaire, related to the field of the study,

in addition to arithmetic means, and standard deviations in the two rounds and this to identify the opinions and consents on each paragraph.

**Study results and discussions:**

View and discuss the results which are related to the central question: “what are the future justifications for transforming to knowledge economy in Jordan from the perspective of educational experts?”

In order to answer this question, the four justifications were viewed as follows:

**Political justifications:**

Table (2) shows percentages, means, and standard deviations of experts’ responses to political justifications.

Table (2) experts’ response in the second round of political justifications

| No. | Paragraphs   | Response   |          | Mean | Standard deviation | Appreciation degree |
|-----|--|------------|----------|------|--------------------|---------------------|
|     |  | Within %   | Against% |      |                    |                     |
| 1   | Rehabilitate the citizen who is able to protect his identity, existence, and privacy.  | 20<br>100% | -<br>-   | 4.8  | 0.41               | High                |
| 2   | Set the required legislations in all fields for comprehending and employing technology   | 20<br>100% | -<br>-   | 4.8  | 0.41               | High                |
| 3   | Decision maker receives accurate, reliable, and comprehensive information at the right time  | 20<br>100% | -<br>-   | 4.8  | 0.44               | High                |
| 4   | Draw clear scientific and technological policy side by side with development plans.  | 20<br>100% | -<br>-   | 4.8  | 0.41               | High                |
| 5   | Enable the next generation to take responsibility for building society and satisfying the requirements of next stage.  | 20<br>100% | -<br>-   | 4.7  | 0.44               | High                |
| 6   | Eliminate barriers against R&D   | 20<br>100% | -<br>-   | 4.7  | 0.30               | High                |
| 7   | Armed with knowledge and skills to be able to actively participate in building strong national economy   | 20<br>100% | -<br>-   | 4.7  | 0.41               | High                |
| 8   | Satisfying the need of local and adjacent market for qualified and trained workforces who are able to confront technical and economic challenges through competitive, regional, and international mechanism. | 19<br>95%  | 1<br>5%  | 3.9  | 0.55               | Medium              |
| 9   | Avail recent scientific and technical information and facilitate all means to get to them within a system frame agree with state goals and circumstances.  | 18<br>90%  | 2<br>10% | 3.9  | 0.82               | Medium              |
| 10  | Mount the role of knowledge in the international success to access the ranks of other states.  | 18<br>90%  | 2<br>10% | 3.9  | 0.55               | Medium              |

Table (2) shows that means, standard deviations, and percentages of the answers of the study sample according to political justifications amounted to 4.8 in its highest level for the following paragraphs: rehabilitate the citizen who is able to protect his identity, existence, and privacy, Set the required legislations in all fields for comprehending and employing technology, Decision maker receives accurate, reliable, and comprehensive information at the right time, and Draw clear scientific and technological policy side by side with development plans. It amounted to 3.9 in its lowest level for the following paragraphs: Satisfying the need of local and adjacent market for qualified and trained workforces who are able to confront technical and economic challenges through competitive, regional, and international mechanism, Avail recent scientific and technical information and facilitate all means to get to them within a system frame agree with state goals and circumstances, and Mount the role of knowledge in the international success to access the ranks of other states.

This may be attributed to the fact that in the light of international transformation, we are in desperate need for focusing on nation identity in order to enhance its uprightness and to raise its children properly. This is cannot be achieved without knowledge and redirecting educational policy and educational strategic goals through managerial and governmental reformation, which aims at redirecting the active management of the educational institution and enabling it to satisfy the learner's and society's needs as well as adopting a comprehensive integral strategy in order to achieve transformation and effective transmission of authority, responsibility, and decentralization to benefit the system in general and the individual in particular. Furthermore, this can be referred to the awareness of experts and political decision makers with their insight to build a comprehensive vision of transforming to knowledge economy and its positive reflections in a way suits this age updates in addition to the awareness of importance of having knowledge especially in the light of technical development in all fields and its effects on modern culture. Future changes have a lot of advantages if they are used properly in addition to the fact that schools have the responsibility to prepare generations and qualified staff who are able to bridge the gap and deal with the new economy inputs especially in technology and media. The government should not be blamed; all sectors should participate in these fields. There should be direct communication between links represented in schools, institutes, and universities. Efforts should collaborate to prepare future generation able to speed up the development. These organizations should create an appropriate environment for the educational community to develop, thrive, apply, publish and facilitate e-learning process as well as remove the barrier of fear for students of this new name in order to create information community to be the base and the focal point for knowledge economy.

**Economic justifications:**

Table (3) shows percentages, means, and standard deviations for experts on economic justifications.

Table (3) experts' response in the second round of economic justifications

| No. | Paragraphs  | Response   |          | Mean | Standard deviation | Appreciation degree |
|-----|---|------------|----------|------|--------------------|---------------------|
|     |   | With %     | Against% |      |                    |                     |
| .1  | National economy depends on knowledge and human capital instead of material capital.        | 20<br>%100 | -<br>-   | 4.8  | 0.44               | High                |
| .2  | Attract foreign investments and overcome legislative and political barriers.                | 20<br>%100 | -<br>-   | 4.8  | 0.41               | High                |
| .3  | Present high level specialized knowledge to help the learner to join a profession or a job. | 20<br>%100 | -<br>-   | 4.8  | 0.41               | High                |
| .4  | Build workers abilities in economic sector to keep up with age needs.                       | 20<br>%100 | -<br>-   | 4.8  | 0.41               | High                |
| .5  | Organize and benefit time in all fields to benefit individual and society                   | 20<br>%100 | -<br>-   | 4.7  | 0.36               | High                |

|     |   |            |          |     |      |        |
|-----|---|------------|----------|-----|------|--------|
| .6  | Hire high skilled employees instead of poor skilled ones to change work nature.                 | 20<br>%100 | -<br>-   | 4.2 | 0.41 | High   |
| .7  | Ability to deal with information technology and computer based technology and its applications. | 19<br>%95  | 1<br>%5  | 3.9 | 0.44 | Medium |
| .8  | Integration between official and non official organizations to achieve economic plans and goals | 18<br>%90  | 2<br>%10 | 3.9 | 0.82 | Medium |
| .9  | Facilitate and control economic operations by technological means                               | 17<br>%85  | 3<br>%15 | 3.6 | 0.73 | Medium |
| .10 | Join open competition and international standards of goods and services quality.                | 16<br>%80  | 4<br>%20 | 3.1 | 0.41 | Medium |

Table (3) shows that means, standard deviations, and percentages of the answers of the study sample according to economic justifications amounted to 4.8 in its highest level for the following paragraphs: National economy depends on knowledge and human capital instead of material capital, Attract foreign investments and overcome legislative and political barriers, Present high level specialized knowledge to help the learner to join a profession or a job, and Build workers abilities in economic sector to keep up with age needs. It amounted to 3.1 in its lowest level for the following paragraph: Join open competition and international standards of goods and services quality.

This can be attributed to what advanced countries have achieved economically of making significant returns through transforming to knowledge economy and the effect of technological means on achieving an increase in returns and speedy growth of knowledge as well as the emergence of new technology and products as well as a spread in knowledge. Furthermore, in order to confront future challenges especially in the light of development acceleration of knowledge and technology; it is necessary to develop scientific and intellectual creativity at the levels of individuals and groups. Creative person is the source of the real power when he is well prepared and his creative energy is set free. Furthermore, education is the backbone of nations; so that, advanced countries pay great attention to education not only for nourishing intact brains, but also to keep up with accelerating development, which became a trait of this age. Higher education and scientific research are related to the industry of future society; its achievement is knowledge community that employs knowledge in the process of society progression and development in different fields. Knowledge economy is considered a branch of fundamental sciences and it aims at enhancing the prosperity of individuals, organizations, and society by studying and designing knowledge system, and then by performing necessary interventions in order to develop these systems. From one side, this branch generates theoretical models through scientific research and from another it develops scientific and technical tools that can be directly applied on real world. It is noticed that plenty of organizations tend increasingly to follow scientific and technological knowledge in the light of modern economy which helps them to achieve more competitive advantages than other organizations. This is by the possibility of making new techniques that generate new skills, goods and services. Therefore, knowledge economy cares about producing knowledge which include creating, acquire, spread, use, and store knowledge in addition to make knowledge which appears through education, training, consultations, conferences, publications, writing, research, and development.

#### **Social justifications:**

Table (4) shows percentages, means, and standard deviations of experts' responses on social justifications paragraphs.

Table (4) the response of experts in the second round of social justifications



| No. | Paragraphs  | Response   |          | Mean | Standard deviation | Appreciation degree |
|-----|---|------------|----------|------|--------------------|---------------------|
|     |   | With %     | Against% |      |                    |                     |
| .1  | Prepare generations able to create, use, and employ knowledge not only store and save knowledge.              | 20<br>%100 | -<br>-   | 4.8  | 0.44               | High                |
| .2  | Overcome class differences in society and achieve the principle of equal opportunities                        | 20<br>%100 | -<br>-   | 4.8  | 0.36               | High                |
| .3  | Facilitate the access and the treatment of knowledge  | 20<br>%100 | -<br>-   | 4.8  | 0.41               | High                |
| .4  | Integrate roles between official and non official organizations relating to education issues.                 | 20<br>%100 | -<br>-   | 4.8  | 0.44               | High                |
| .5  | Maintain modernity and originality  | 20<br>%100 | -<br>-   | 4.8  | 0.41               | High                |
| .6  | Change intellectual frames for Jordanian society to be appropriate with the needs of the age.                 | 20<br>%100 | -<br>-   | 4.2  | 0.41               | High                |
| .7  | Expand participation to include different civil society organizations such as unions, parties, and societies. | 19<br>%95  | 1<br>%5  | 3.9  | 0.36               | Medium              |
| .8  | Expand the use of IT to get the social needs of the individuals such as using e- mail and others.             | 18<br>%90  | 2<br>%10 | 3.8  | 0.61               | Medium              |
| .9  | Take care of society interaction with other societies.  | 17<br>%85  | 3<br>%15 | 3.6  | 0.73               | Medium              |
| .10 | Organize and benefit from time in all fields inside society to benefit individuals and society                | 17<br>%85  | 3<br>%15 | 3.6  | 0.73               | Medium              |

Table (4) shows that means, standard deviations, and percentages of the answers of the study sample according to economic justifications amounted to 4.8 in its highest level for the following paragraphs: Prepare generations able to create, use, and employ knowledge not only store and save knowledge, Overcome class differences in society and achieve the principle of equal opportunities, Integrate roles between official and non official organizations relating to education issues, and Maintain modernity and originality . It amounted to 3.6 in its lowest level for the following paragraphs: Take care of society interaction with other societies, Organize and take advantage of time in all fields inside society to benefit individuals and society.

This is attributed to the fact that education overcomes the idea of education as retrieving knowledge by teaching and examining. It should harmonize between memory and creativity. Thus, critique and creative mental industry is very important and this is attributed to the feeling that people of different tendencies, responsibilities, and strata are united to elevate their nation. This can be done by expanding the circle of participation for all civil society organizations such as unions, parties, and societies. Furthermore, this age faces an accelerated growth of technology and an increase of employing education and learning; traditional methods are unable to keep up with development or contribute effectively to comprehensive development. This lead to an increase in the need for

creative initiatives that avails opportunities for constant education appropriate for his future and present needs. It also enables him to contribute to comprehensive development.

**Cultural justifications:**

Table (5) shows percentages, means, and standard deviations for the response of experts on cultural justifications.

Table (5) experts' responses on cultural justifications

| No. | Paragraphs  | Response   |          | Mean | Standard deviation | Appreciation degree |
|-----|---|------------|----------|------|--------------------|---------------------|
|     |   | With %     | Against% |      |                    |                     |
| .1  | Master the basic skills of using computer   | 20<br>%100 | -<br>-   | 4.9  | 0.41               | High                |
| .2  | Use technology effectively to develop education and include it in school curricula  | 20<br>%100 | -<br>-   | 4.9  | 0.41               | High                |
| .3  | Maintain national, religious, and cultural identity.  | 20<br>%100 | -<br>-   | 4.9  | 0.41               | High                |
| .4  | Surround available knowledge and science and make effort for scientific research using different methods.                               | 20<br>%100 | -<br>-   | 4.9  | 0.41               | High                |
| .5  | Expand self learning through educational portfolios and IT  | 20<br>%100 | -<br>-   | 4.8  | 0.41               | High                |
| .6  | Make educational organizations as units for producing knowledge   | 20<br>%100 | -<br>-   | 4.8  | 0.44               | High                |
| .7  | Quick growth of knowledge and the emergence of new scientific branches, technology, and products in addition to the spread of knowledge | 20<br>%100 | -<br>-   | 4.8  | 0.41               | High                |
| .8  | Enhance education by focusing on qualitative education using modern techniques.   | 19<br>%95  | 1<br>%5  | 3.9  | 0.41               | Medium              |
| .9  | Own communication skills and deal with other cultures and civilizations   | 19<br>%95  | 1<br>%5  | 3.9  | 0.41               | Medium              |
| .10 | Use computer for collecting, explaining, exchanging information to contribute to enrich knowledge.                                      | 18<br>%80  | 2<br>%10 | 3.8  | 0.61               | Medium              |

Table (5) shows that means, standard deviations, and percentages of the answers of the study sample according to economic justifications amounted to 4.9 in its highest level for the following paragraphs: Master the basic skills of using computer, Use technology effectively to develop education and include it in school curricula, Maintain national, religious, and cultural identity, and Surround available knowledge and science and make

effort for scientific research using different methods. It amounted to 3.6 in its lowest level for the following paragraph: Use computer for collecting, explaining, exchanging information to contribute to enrich knowledge.

This can be attributed to the fact that mastering basic skills of modern technologies contributes to enrich, market, and discharge knowledge. This positively affects the individual in a way that harmonizes with using various sources of modern technologies, which affect self learning as well as the ability to apply technology, organize ideas, and surround knowledge that are used to in addition to the importance of this economy for individuals, organizations and societies in general. In addition, technological revolution, accelerating change, media openness, and the age of cosmic communications clarify the most important characteristics of the twentieth first century, which depends on scientific knowledge and the optimal use of flowing information. This needs a quick organization; this revolution is characterized by: depends on the human minds and generate, organize, store, retrieve, and deliver information very quickly. What is required today is to consider how to develop individual skills as well as the creativity of appropriate methods in addition to the expansion of skills meanings. They are not exclusive on literacy, memorizing, listening, thinking, dialogue, and research; they also include the development of these skills.

### Conclusions and recommendations:

Based on the results of the study, some conclusions and recommendations can be presented as the following:

1. Hold training courses in different organizations which are related to education in order to identify knowledge economy for workers.
2. Adopt a system of incentives and rewards that focus on generating and updating knowledge constantly.
3. Seek educational and managerial staffs that are effective in the light of knowledge based world.
4. Focus on beyond knowledge to train and educate learners on thinking and creative behaviors.

### References

- Krogh , a . Von & Nonaka , I . and Aben , M . , (2001), “ Making The Most of Your Company’s Knowledge :A Strategic Framework ,, Long Rang Planning , 34. -LaRue, Bruce Mallory.(1999).
- Malhotra , Yogish . (2003) . Measuring Knowledge Assets of A Nation : Knowledge Systems For Development , New York City , U S A .  
(On-line) available at //htt://www.nesasy.com/societal/societal.html
- Alkilani, Anmar (2002) “modern trends for planning and managing higher education institutions”, national seminar for senior officials about planning and management in higher education, Islamic organization for culture, science, and education, ISECSO. Amman, Jordan
- Alkubaisi, Salah Addin (2005), knowledge management c1, Cairo: Arabic organization for managerial development.
- Allaban, Sharif Darwish (2000) communication technology: threats, challenges, and social effects, c1 Cairo: Lebanese and Egyptian press.
- Almhna, Aisa Sami (2005) knowledge economy and Arabic losses.
- Alomari, Saleh (2004), teaching geography according to knowledge economy vision: theory and application. C 1, Amman: commercial addustour press.
- Alshayer, husam Alddein Abdelghani (1999), principles of trade related aspects of intellectual property rights, (trups pact), c (1) Arabic renaissance publishing center, Cairo.
- Ammar, Hamid (2000), faces globalization in culture and education. C 1, Cairo: Arabic publishing center library.
- Areen, Mohammad (2003), what is knowledge economy?. Arabic Club for information journal, vol. 28, Kuwait [www.schoolarabia.net/areen/28](http://www.schoolarabia.net/areen/28)
- Diab, Muhammad (2004). Knowledge economy: where we are? Arabic journal, vol. 546, Kuwait.
- Emad Addin, Muna Mu’taman (2004), the role of Jordanian education system in progressing toward knowledge economy, techer’s message. Vol. 42, no. 1, Amman, Jordan
- Gharaibeh, Ibrahim (2003), UN developmental program, Arabic fund for economic and social development. A report for Arabic human development for the year 2003, Amman, Jordan
- Haidar, Hussein Abdellatif (2004). New Management of education organization in the Arab world in the light of knowledge community, Faculty of Education journal, UAE University, year 19, vol. 21, AL- Ain – UAE.
- Ministry of education (2002), toward a future insight for Jordan education system, teaching forum in the future Jordan 15-16\9\2002, Amman, educational R&D management

- Ministry of education (2003) toward a new trend for preparing the significant teacher in the age of knowledge, c1 Amman, Publishers of Jordanian Ministry of education
- Ministry of education (2003), future insight suggested for Jordan education system, teacher's letter, vol. 42, no. 1, Amman, Jordan
- Mu'taman, Muna (2004) teaching forum in the future Jordan, managing educational R&D, Amman, Jordan
- Mu'taman, Muna (2004), Jordanian system role in the progression toward knowledge economy, teacher's letter, vol. 43, no. 1, Amman, Jordan
- Pan, S.& Scarbrough, (1999) "Knowledge Management in Practice: An Exploratory Case Study", Technology Analysis & Strategic Management, Vol.11 (3) , 269 – 280 .
- Sourti, Yazid Aisa (2005), knowledge economy and higher education in the Arab world, Studies journal, Jordan University, vol. 32, no. 1
- Touqan, Khaled (2005) Reinforce the concept of knowledge economy, Amman: aman news center.
- Toward A unified View of Working, Living, and Learning in The Knowledge Economy: Implications of The New Learning Imperative for Higher Education, Distributed Organizations, and Knowledge Workers, The Fielding Institute.
- Yunus,Aida Suraya Muhammad ,(2001). Education Reforms In Malaysia, AGCESSION NO. ED 464406.
- Zarnouqa, Salah Salem (2001). A reading in the concept of knowledge economy, Pyramids center for strategic and political studies, Cairo. [http:// www.ahram.org.eg/acpss\](http://www.ahram.org.eg/acpss/)