
IMPACT OF INFORMATION TECHNOLOGY AND COMMUNICATIONS (ITC) ON THE SUSTAINABLE DEVELOPMENT FROM THE POINT OF VIEW OF THE FACULTY MEMBERS AT THE JORDANIAN UNIVERSITIES

Tharwat Mohammad Al-Hawamdeh, PhD.
Jerash Private University, Jerash/Jordan.

ABSTRACT

The aim of the study is to know the Information Technology and Communications (ITC) impact on the sustainable development in Jordan from the point of view of the faculty members in the Jordanian universities. A questionnaire has been designed and consisted of (39) items distributed to (8) fields.

After confirming the questionnaire's validity and reliability it has been distributed to the study sample which consisted of (137) of the faculty members working in 2 public and 2 private universities. Results showed the positive impact of (ITC) on the sustainable development in Jordan. A set of recommendations has been suggested, the most important, is to increase the awareness of the Jordanian youth due to keeping the family coherence, organizing the activities through the universities to enhance the national loyalty and belongings, preserving the nation's capability to achieve the sustainable development at the social and economic levels.

Keywords: Information Technology and Communications (ITC), sustainable development, faculty members in the Jordanian universities.

Introduction

Information technology and communications (ITC) considers the basic drivers for change in the societies of the contemporary era, since the development of information technology and communications and enhancing their usage consider corner stone of the economic structure in these countries.

This concept has begun in a separate form of information technology until the workers in this field have perceives that communications form on important part in the dealing chains with information technology. The new concept became to cover the internet services items, information technology and communications' equipment, the services relating to them, communication and dissemination means, documentation centers, commercial information providers, information services that use the communications nets, and all the activities relating to them.

Information technology and communications has been used as a means to reduce poverty, building the capabilities, enriching the skills and the experiences.

Acquiring information technology and communications and the skills by the advanced industrial countries gave them the great economic and social preference, and made difference between them and the developing countries called "the digital gap".

Realizing the risk of the digital gap in the developing countries has called them to focus their attention on studying the role of information technology and communications in achieving their development plans.

Following- up the requirement of the work market, activating the individuals' productivity, economic justice, and satisfying the basic needs.

The social dimension in the sustainable development represents the human dimension; it makes the growth a means for social coherence, and the necessity to choose fairness between the generations.

The present generations should make the growth choices according to their desires and the desires of the coming generations, equality in wealth distribution, popular participation, cultural diversity, fairness and justice in growth choices (Kareem, 2009).

Abu - Ali (2012) has pointed that one of the important dimensions of the sustainable development process is the technological dimension, because it simulates the modern and the advanced technology of devices, instruments and technological tools, the most important is the use of the aware mind in the benefiting from the techniques and technology. In addition, the administrative dimension which represents in the systems, planning, ways of monitoring, directing and the administrative and cognitive organization.

Acquisition of the advanced information technology on communications by the developed countries has created what is called the "digital gap" between them and the developing countries, and the need for the countries to focus the interest on studying the role of information technology and communication in achieving their developmental plans (Al-Alami, 2013).

Study problem:

The Arabic region is generally suffering from the general slow in the economic activity ratio, and the weak governmental support to the intelligence-civilized projects, the failure of the sustainable development at the local level.

In the light of the cultural, social and economic changes of the Jordan reality, the transformations it is witnessing, and because of the wide spread of Information Technology and Communications (ITC) in

Jordan. This study comes to reveal the resulting effects of its rapid and great spread on the benefits of sustainable development, especially regarding the human resources, including the Jordanian youths that reflections on the society generally, productivity on the social, national and economic fields, productivity level, and the requirements of the market place.

The study problem has been determined in the following two current questions:

First Question: Is there an effect of information technology and communications regarding the use of the internet web on the sustainable development from the point of view of the faculty staff in the Jordanian universities?

Second Questions: Is there an effect of information of information technology and communications regarding the use of the social network communications on the sustainable development from the pointed of view of the faculty members in the University of Jordan.

The study goals:

This study aims at knowing the effect of information technology and communications (Internet web and the social networks) on the sustainable development in Jordan. Regarding the social, national and economic sides, and reaching the activities of research and development to strengthen the new technologies of resources. Adopting the sustainable mechanisms without influencing the family coherence or building the modern societies and improving the performance of the public and private institutions. Thus, developing the individuals' skills and knowledge to teach inputs based on the modern technologies, to achieve better productivity level, and in accordance with the requirement of the present stages, and the market requirements to be able to compete and to guarantee the economic growth on the prospected extent.

Significance of the study:

Information technology and communications considers currently and in the one of the most important factors affecting the development of the societies.

The rapid development in the information technology and communications during the past five years has led to significant change in the youths' modes of thinking regarding the life styles, communication, reaching information, knowledge, work, security, national belonging issues and the individuals' relationship with each other's inside the one family and the trend towards achieving the wealth at any cost. There is no doubt that the goal of using and disseminating information technology communications is to achieve benefits in all our daily life sides.

From this point came the importance of this study reveal the resulting effects from using information technology and communication on the sustainable development in Jordan from the economic and social sides, especially on the youth category.

Identifying the terms:

Sustainable development: it is an expression of the development that characterizes by stability and processes the continuity and perpetuity determinates, it is not one of those development modes that the scholars used to show like the economic or social or cultural development, rather it includes all of these modes , it is a development which raises the general resources, and the human resources, and seeks to achieve the economic and social goals represent in Justice , equality and social coherence and preserving the cultural identity (Ahmad, 2013).

Communications Technology:

Modern means of communications through which it is possible to transfer and transmit and use the information revolution achievement from a place to another, and their effects reflect on the different life fields, the social, economic and civil domains and other life domains (Ammar&Abdalbaqi, 2001).

The Internet web:

It is a global net links thousands of nets and millions of different types and sizes of computer devices in the globe.

The internet web benefits reside in being a means used by the individuals and the institutions to communicate and exchange of information (Pike, 1995).

Social network communications is a term used to a group of sites on the global internet web, enables the communication between the individuals in a virtual environment of the society , with common interest or belongs to the country or culture if specific category in a global system to transform the information (Al-Sa'idi, 2013).

Study Hypotheses:

First basic Hypothesis (Ho₁): there is no effect with statistically significance at significance level ($\alpha \leq 0.05$) of information technology and communication regarding the use of internet web on the sustainable development from the point of view of the faculty members in the Jordanian universities.

From this basic hypothesis branches the following sub hypothesis:

- First subhypothesis (Ho:1-1): There is no effect with statistically significance at significance level ($\alpha \leq 0.05$) of using the internet web on sustainable development in the family coherence field.
- Second sub hypothesis (Ho:1-2): There is no effect with statistically significance at significance level ($\alpha \leq 0.05$) for using the internet web on sustainable development in the national belongings and loyalty.
- Third sub hypothesis (Ho:1-3) : There is no effect with statistically significance at significance level ($\alpha \leq 0.05$) for using the internet web on sustainable development in the field raising the individuals' level of skills and knowledge.
- Fourth sub hypothesis (Ho:1-4) : There is no effect with statistically significance at significance level ($\alpha \leq 0.05$) for using the internet web on sustainable development in the field raising the individuals' productivity level and achieving the work market's requirements.

Second basic Hypothesis (Ho:2): there is no effect with statistically significance at significance level ($\alpha \leq 0.05$) of information technology and communication regarding the use of social network communication on sustainable development from the point of view of the faculty members in the Jordanian universities.

From this second basic hypothesis branches the following sub hypothesis:

- First sub hypothesis (Ho:2-1) : There is no effect with statistically significance at significance level ($\alpha \leq 0.05$) of using the social networks communications on sustainable development in the field family social coherence.
- Second sub hypothesis(Ho:2-2): There is no effect with statistically significance at significance level ($\alpha \leq 0.05$)of using the social networks communications on sustainable development in the field the national belongings and loyalty.
- Third sub hypothesis (Ho:2-3) : There is no effect with statistically significance at significance level ($\alpha \leq 0.05$) of using the social networks communication on sustainable development in the field raising the level of the individuals skills and knowledge .
- Fourth sub hypothesis (Ho:2-4) : There is no effect with statistically significance at significance level ($\alpha \leq 0.05$) of using the social networks communication on sustainable development in the field raising the level of the individuals productivity and achieving the work market's requirement.

Independent variables: Using information technology and communications and include two fields:

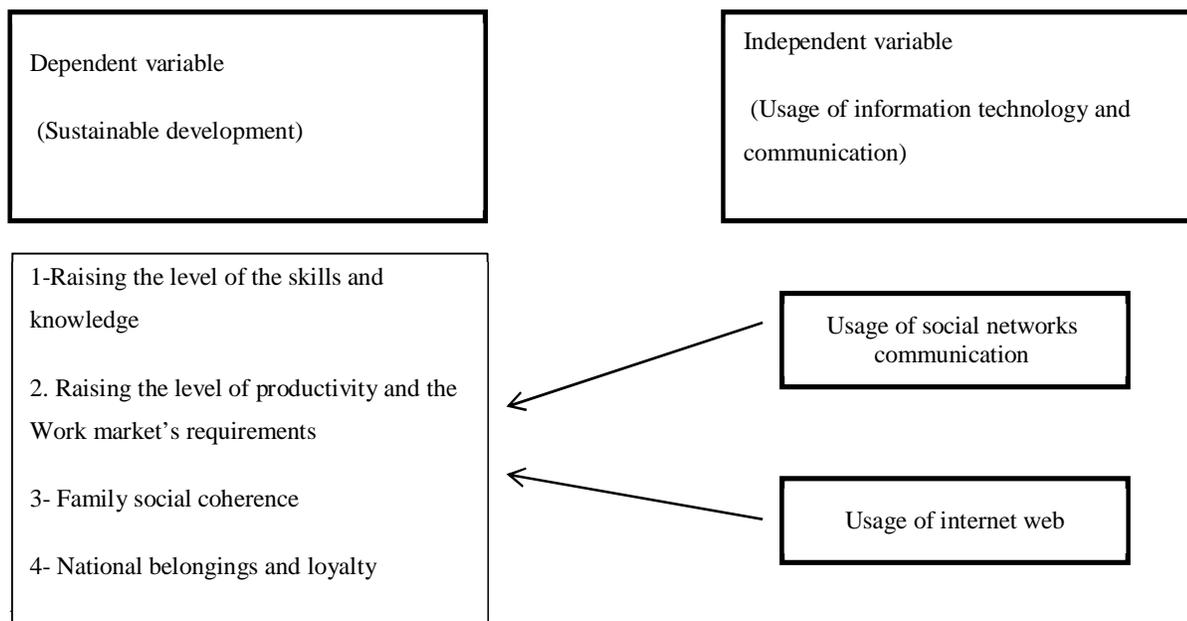
- Using the internet web.
- Using the social networks communication

Dependent variables: sustainable development and include four fields:

- Raising the individuals' level of skills and knowledge
- Raising productivity level and achieving the work market's requirements
- Family social coherence
- National belongings and loyalty

Figure 1. The Study Model:

Figure 1. The Study Model



First : Studies relating to the sustainable development :

Coombes & Johnson (2002) titled “Sustainable development and cultural planning”.

This study aimed at diagnosing and analyzing the relationship between sustainable development from one side and the cultural planning from the other side considering that both of them is an important means to the societies to achieve their goals , and because each one seeks to achieve good quality of life to the population.

The study reached that in spite of the complete bound between sustainable development and cultural planning still there is the possibility for contradiction as a result of separating them, despite of this they remain the pre-requirements and conditions to achieve good quality of life to the population.

(Goodwen , 2003) study title “ Five kinds of capital : useful concepts of sustainable development”

The study has illustrated in details the term capital in its traditional concept and its sustainable concept, and showed that the capital for sustainable development purposes can be divided in to five kinds (Financial, Human, productive, natural and social) , considering that the capital is the basic input to the sustainable development process.

Study results showed the role of capital kinds in the sustainable development process.

(Lavanga, 2006) study title” The contribution of cultural and creative industries to a more sustainable development” , has addressed by analysis the role of culture and industry in the evolution and formulation of the civilized regions, the study has focused on the great role of the human capital and the new services and ideas in sustainable development, the study has clarified that improving the general civilized scene for many of the civilized cities and societies, also improving the quality of life of the population in them greatly links to preparing sustainable civilized development and sustainable civilized society.

(Abd-alrahman , 2010) study title “ Reality of sustainable development in the public economic institutions” the study aimed of targeting the reality of the sustainable development in the public economic institutions in Algeria through studying a very important problem which is about the relation between the economic institutions and sustainable development, institutions care about the sustainable development bets such as other interactive parties in the society.

As a result of this, sustainable development dimensions became indispensable part of the work of the economic institutions, directors, this is through continuous pursue to have the socially responsible acts.

Jordanian Ministry of information technology and communications study (2014) title “ Jordan’s Rank in the Global Report of information technology , According to the Axis and indexes, directorate of the policies and the strategies.

The report comes as one of the important publications and studies in the field information technology and communication at the global level.

The report showed that Jordan come at the (44) rank among the participating countries , compared to the (47) rank of (144) countries that have participated in the year (2012-2013).

Second: The studies relating to information technology and communications:

(Meshel, 2010) study title “Facebook and the invasion of technological communities” aimed at revealing the effect of using these social networks communication on the social relations.

The results showed that more than half of the adults use sites including (Facebook, bebo, and you tube) , they have admitted that they spend longer times on the internet web comparing to the time they spend with their friends or with their family members.

Hareesi (2011) . Study title. “Role of the modern technology for communication in achieving the goals of the sustainable human development strategy in Algeria”, aimed at testing the role of the modern technologies for communication in achieving the sustainable human development strategy.

The results revealed the effect of (ITC) on developing the human resources and the organizational and administrative structure in Algeria.

Awad (2012) study title “Testing the effect of social networks for communication on developing the social responsibility of the youth category” ,aimed at testing the effect of social networks for communication on developing the social responsibility of the youth category , through applying a training program to a group of youth council in Jerusalem.

The program consisted of (5) interviews executed during five days with the average (4) hours per interview, the researcher determined a number of goals for each interview, also determined the mechanism and the procedures for execution.

Also, the researcher has used the multiple means in making the program succeed, including the recorded films, hard paper, turning board, LCD, and the presentation by using the power point program.

Abed (2012) study title “Role of the social networks for communication in preparing the Palestinian public opinion toward the social and political networks for communication in forming the public opinions of the Palestinian university students.

The study recommended the necessity that the companies based on the social networks communication should preserve the values and the customs and the specificity of some nations, without causing abuse to them.

Mansoor (2012) study title “Effect of the communication networks on the public: comparative study of the social sites and the electronic sites”, this study aimed at revealing the form of the social sites “ the facebook as a model” specific to Al-Arabia channel , and the comparison between the content of the social site (The facebook) of Al-Arabia net.

The two sites the electronic and the social sites have allocated as sufficient area to the cultural news, and gave the larger area to the open dialogue, expressing the opinions, the comments and the replies, also the two sites have confirmed giving the editors the selection right of fixed corners and specialized pages, the editors options have addressed the (political, economic, social and sport) issues, while the social electronic site has concerned with the cultural issues to satisfy the tastes of the youth visitors who particularly like music.

(Al-Zyoodi, 2012) study title “Role of information technology and communication of the project developing education towards economic knowledge (ERFKE) on developing the life skills of the Jordanian public schools’ students”.

The study aimed at measuring the role of ITC in developing the life skills of the Jordanian public schools’ students.

The study results showed that the role of information technology and communications in developing the life skills of the Jordanian public schools’ students was at a high degree, also the results showed the presence of differences with statistically significance in the role of ITC in student’s life skills attribute to gender and in favor of the female students and in favor of the basic stage students.

In the light of the results the study reached a number of recommendations, including: the necessity to enhance the capabilities of the south district schools by Ministry of Education , especially the infrastructure in ITC field, and the necessity to raise the awareness and training the males schools’ teachers to develop the students’ life skills.

What distinguish this study from previous studies

This present study came to shed the light on the effect of ITC on the sustainable development from many basic sides that have the clear influence on the Jordanian youths on achieving the requirements of the sustainable development, regarding acquiring the skills and knowledge, increasing the opportunities to get a job and raising the productivity level, and revealing their effect from the social sides, such as the family coherence, preserving the Arabic and the national cultural infrastructure concerning belongings and loyalty to the society in which they live, and keeping and preserving its natural resources.

The way and the procedures:

Methodology: the researcher has depended on the descriptive analytical method in revealing the effect of ITC on sustainable development from the point of view of the faculty members in the Jordanian public and private universities.

Study limitations:

The results of this present study have been determined by the temporal determinates represented in the year (2014), and spatial determinate represent by the public universities (University of Jordan and Yarmouk University), and the private universities (Jadara and Jarash universities), and determined by the human field represents by the faculty members in those universities, and by the subjective determinates regarding the characteristics of the used study instrument in measuring the independent and the dependent variables.

Study population and sample:

Study population consisted of all the faculty members in four universities; University of Jordan ,Yarmouk, Jadara and Jarash Universities) working in the academic year 2014-2015 , while study sample consisted of (137) faculty members in those universities, they were randomly selected.

Table (1) shows the distribution of the sample's individuals according to their personal and occupational variables.

Table (1): distribution of the sample's individuals according to the personal and occupational variables

The variables	Category	Frequency	Percentage
Gender	Male	106	77,37
	Female	31	22.63
	Total	137	100%
Educational level	Masters	19	13.87
	Doctorate	118	86.13
	Total	137	100%
Scientific rank	Professor	28	20.4
	Associate prof	49	35.8
	Assistant prof	38	27.7
	Full time lecturer	13	9.5
	Teacher	9	6.6
	Total	137	100%
Experience	Less than 5 years	29	21.2
	5-10 years	40	29.2
	11-15 years	38	27.7
	16 years and more	30	21.9
	Total	137	100%
University	University of Jordan	47	34.3
	Yarmouk	42	30.7
	Jadara	23	16.8
	Jarash	25	18.2
	Total	137	100%

It is clear for, Table (1) the following:

- Regarding the gender variables, it is noticed that from the study sample that the male faculty members are the highest frequency (106) members by (77.37%) while the female faculty members (31) members by (22.63%).
- Concerning the educational level variable, the faculty members number in the study sample of those who have the doctorate certificate (118) by (86.13%), while those who have the master certificate their number was (19) by (13.87%).
- Regarding the scientific rank variable, it is noticed that the faculty member with the associate professor rank are the most frequent, their number reached (49) by (35.81%), while those with the rank teacher are the lowest frequency, their number reached (9) by (6.6%).
- For the experience variable, it is noted that the faculty members in the study sample whose experience ranged from (5-19 years) are the most frequent, their number reached (40) members, by (29.2%), while those with experience less than five years are the least frequent, their number reached (29) members by (21.2%).
- Regarding the university variable, it is noticed that the faculty members in the study sample in the University of Jordan reached (47) by (34.3%), while those teaching in University of Jordan are the least frequent, their number reached (23) by (6.8%) from total study sample individuals.

Study instrument (The Questionnaire):

The researcher has referred to the literature review relating to the sustainable development and ITC, the books and the specialized scientific references.

(40) items were prepared, the researcher has depended on setting the items on the independent variables (effect of the internet web and effect of the social networks for communication), and the dependent variable (sustainable development relating to usage of information technology) represents in four fields (Acquiring the skills and knowledge, productivity achieving the requirement of the work market, social coherence, and national belongings and loyalty).

The questionnaire items were classified into (8) fields through which linked each independent variable to (4) fields of the dependent sustainable development as dependent variables.

Study instrument validity:

The questionnaire has been introduced to a group of arbitrators with specially, they are faculty members in the Jordanian universities, their number was (6) members, they were asked to give their opinions and suggestions about the extent of the items relevance to the fields they were set for, and the extent of the items clarity and achieving the study goals.

After collecting their notes, the questionnaire's items were modified, three items were omitted and two items were added, and the questionnaire in its final form has become to consist of (39) items distributed to (8) fields.

Study Instrument stability:

For the purpose to confirm the study instrument stability, it has been applied two times, two weeks period difference to a pilot sample consisted of (40) faculty members in the Jordanian universities were selected from outside the original sample.

Peorson correlation coefficient was calculated between the two applications to extract the stability of (R.test). Also internal consistency coefficient was extracted (Cronbach Alpha) to all of the study fields and the instrument as a whole. Table (2) clarifies this.

Table: 2

No	The field	No. of the items	Cronbach Alpha coefficient	Coefficient of test-retest stability
1	Effect of using the internet web on the family social coherence	6	0.15	0.84
2	Effect of using the internet web on the national belongings and loyalty	4	0.79	0.83
3	Effect of using the internet web on acquiring the skills and knowledge	4	0.86	0.81
4	Effect of using the internet web on productivity and achieving the requirement of the work's market	5	0.89	0.85
5	Effect of using the internet web on the sustainable development	19	0.96	0.92
6	Effect of using the social communication sites on the social coherence	6	0.88	0.84
7	Effect of using the social communication sites on the national belongings and loyalty	5	0.90	0.85
8	Effect of using the social communication sites on the skills and knowledge	5	0.91	0.83
9	Effect of using the social communication sites on productivities and the requirement of the work's market	4	0.87	0.82
10	Effect of using the social communication sites on sustainable development	20	0.94	0.90

It is clear from Table (2) that Cronbach Alpha Coefficients for the fields effect of using the internet web on the fields of sustainable development ranged between (0.75-0.89). The highest was for the field "Effect of using the internet web on the skills and knowledge". On the other hand, the least was for the field "Effect of using the internet web on the social coherence". Cronbach Alpha coefficient reached for the effect of using the internet web on the sustainable development as a whole (0.96), and all of the stability coefficient were high and accepted for the purpose applying the study instrument to the original sample.

Also, the stability coefficients ranged between (0.81-0.85) for the stability of the re-test of the fields effect of using the internet web on the sustainable development; the highest was for the field "Effect of using the internet web on productivity and work's market", and the lowest was for the field "Effect of using the internet web on the skills and knowledge", the re-test stability coefficient for the effect of using the internet web on the sustainability development as a whole reached (0.92), and all the coefficient for test-retest were high and accepted for the purpose applying the study instruments to the original sample.

Also seen from Table (2) that the internal consistency coefficients (Cronbach Alpha) for the fields effect of using social communication sites on the sustainable development fields ranged between (0.87-0.91); the highest was for the field "Effect of using social communication sites on the skills and knowledge, and the lowest was for the field "Effect of using social communication sites on productivity and work's market", and Cronbach Alpha coefficient for effect of using social communication sites on sustainable development as a whole reached (0.94). Also stability coefficient for test-retest of the fields effect of using social communication sites on sustainable development fields ranged from (0.82-0.85), the highest was for the field "Effect of using social communication sites on the skills and knowledge", and the lowest was for the field "effect of using social communication sites on productivity and work's market", and stability

coefficient for test-retest reached (0.85) for the effect of using social communication sites in sustainable development, and all coefficients of test-retest stability were high and accepted for the purpose applying the study.

The step wise used in answering the questionnaire items:

The questionnaire in its final form consisted of (39) items, and the researcher has used Likert five points scale, strongly agree has been given (5), agree (4), neutral(3), disagree(2), and strongly disagree(1), by placing the sign (X) in front of the answer which reflects the degree of agreement, also the following rating has been adapted to judge the means, since the means of the fields were divided into three equal categories as follows:

- Less than 2.33 low
- Less 2.34-3.66 medium
- From 3.67-5.00 high

Statistical treatment:

To answer the study questions the relevant statistical treatments have been used through (SPSS) program for the statistical packages, represent in frequencies, and the percentage of the personal and occupational variables of the study sample individuals, and the application of the internal consistency coefficient (Cronbach Alpha) for all the study fields, and Pearson coefficient to reach test-retest stability and obtaining the means, standard deviations of the study sample individuals' answers of the study's all items and fields, and using (t) test for (one-sample t-test) to test the hypothesis and to answer questions.

Study results:

Descriptive statistics: means and standard deviations for all the study's fields were obtained, following in their illustration:

First: Effect of using the internet web on sustainable development fields and the fields as a whole.

Table (3): means and standard deviations of the fields "Effect of using the internet web on sustainable development" N=137

No.	The field	Mean	Standard deviation	Rank	The degree
1	Effect of using the internet web on the family social coherence	3.83	0.73	1	High
2	Effect of using the internet web on the national belongings and loyalty	3.02	0.83	4	Medium
3	Effect of using the internet web and acquiring the skills and knowledge	3.78	0.75	2	High
4	Effect of using the internet web on productivity and achieving the work place requirement	3.69	0.57	2	High
5	Effect of using the internet web on sustainable development as a whole	3.61	0.39	-	Medium

It is seen from Table (3) that the means of the fields "Effect of using the sustainable development ranged between (0.32-3.83), the highest was for the field "Effect of using the internet web on the family social coherence" and at a high degree, followed by the third field "effect of using the internet web on acquiring the skills and knowledge" with the mean (3.78) and at a high degree, then the fourth field "effect of using the internet web on raising the productivity level and achieving the requirement of the work's marker with

the mean (3.69) and at a high degree, and at the last rank the second field “effect of using the internet web on the national belongings and loyalty” with the mean (3.02) and at a median degree, and the general mean reached (3.61) at a medium degree, for the effect of using the internet web and with a medium degree, the general mean “ effect of using the internet web on sustainable development as a whole” reached (3.61) at a medium degree.

Second: effect of using the social communication sites on the sustainable development fields.

Table(4): means and standard deviation of the fields “Effect of using social communication sites on sustainable development” (n=137).

No.	The field	Mean	Standard deviation	Rank	The degree
1	Effect of using the social communication sites on the family social coherence	3.67	0.57	1	High
2	Effect of using the social communication sites on the national belongings and loyalty	3.03	0.74	4	Medium
3	Effect of using the social communication sites on acquiring the skills and knowledge	3.10	0.89	2	Medium
4	Effect of using the social communication sites on raising productivity and achieving the requirement of the work's market	3.02	0.93	3	Medium
5	Effect of using the social communication sites on sustainable development as a whole	3.24	0.50	-	Medium

It is seen from Table (4) that the means of the fields “Effect of using the social communication sites on sustainable development” ranged between (0.32-3.67), the highest was for the field “Effect of using the social communication sites on the family social coherence ” with the mean reached (3.67) and at a high degree, followed by the third field, “effect of using the social communication sites on acquiring the skills and the knowledge at the second rank with the mean reached (3.10) and at a medium degree, then the second field “effect of using the social communication sites on the national belongings and loyalty” with the mean (3.03) an at a medium degree, and at the last rank the fourth field “effect of using the social communication sites on raising the productivity level and achieving the requirements of the work’s market with the mean (3.02) and at a medium degree , and the general mean of the effect of using social communication sites on sustainable development as a whole reached (3.24) and at a medium degree.

Third: Testing the hypothesis

The study first basic hypothesis: there is no effect with statistically significance at significance level ($\alpha \leq 0.05$) of information technology and communication (internet web) on sustainable development from the point of view of the faculty members in the Jordanian universities.

To test this hypothesis, T-test has been applied for the one-sample to reveal the effect of ITC (internet technology on the sustainable development represents in (family social coherence) national belongings and

loyalty, acquiring the skills and knowledge, productivity, and achieving the requirements of the work's market) from the point of view of the faculty members in the Jordanian universities.

Table (5): T-test results of one sample

Hypothesis	The field	Mean	S.D	Degree of the freedom	T. value	Sig	Result of the hypothesis
Basic (1)	Sustainable development	3.61	0.39	136	18.15	0.00	Reject
Sub (1)	Family social coherence	3.83	0.73	136	13.372	0.00	Reject
Sub (2)	National belongings and loyalty	3.02	0.83	136	0.256	0.798	Accept
Sub (3)	Acquiring the skills and the knowledge	3.78	0.75	136	12.224	0.000	Reject
Sub (4)	Raising the productivity level and achieving the requirements of the work's market	3.69	0.57	136	14.177	0.000	Reject

It is clear from Table (5) that:

- The results showed the presence of medium and positive effect with significance of information technology and communication (the internet web) on sustainable development from the point of the faculty members in the Jordanian universities, and t-value is positive and reached (18.15) with statistical significance (0.00), the general mean has been compared to the standard value of the step wise, which is (3), so the study first basic hypothesis is rejected and accepting the alternative hypothesis to become, there is a positive effect of information technology and communication (the internet web) on sustainable development from the point of view of the faculty members in the Jordanian universities.
- The results showed the presence of positive effect with statistical significance of information technology and communications (the internet web) on the family social coherence from the point of view of the faculty members in the Jordanian universities, since t-value reached (13.372) with statistically significance (0.00), which is positive value, the general mean has been compared to the standard value of the step wise which is (3), so the first sub hypothesis is rejected.
- The results showed the absence of effect with statistically significance of information technology and communication (the internet web) on the national belongings and loyalty from the point of view of the faculty member in the Jordanian universities, since (t) value reached (0.256) with statistically significance (0.798), so the study's second sub-hypothesis is accepted.
- The results showed the presence of medium positive effect with statistically significance of information technology and communications (the internet web) on acquiring the skills and the

knowledge from the point of view of the faculty members In the Jordanian universities, since (t-value) reached (12.229) with statistically significance (0.00), which is a positive value, so the study's third sub hypothesis is rejected.

- The results showed the presence of high positive effect with statistically significance of information technology and communications (the internet web) on productivity and achieving the requirements of the work's market from the point of view of faculty members in the Jordanian universities, since (t-value) reached (14.177) with statistically significance (0.00), so the study's fourth sub hypothesis is rejected.

The study's second basic hypothesis: There is no effect with statistically significance at significance level ($\alpha \leq 0.05$) of information technology and communications (social communication sites) on sustainable development from the point of view of the faculty members.

To test this hypothesis, (t-test) for one sample has been applied to reveal the effect of information technology and communications (social communication sites) on sustainable development represents in (family social coherence, national belongings and loyalty, acquiring the skills and knowledge, productivity, and achieving the requirements of the work's market) from the point of view of the faculty members in the Jordanian universities, Table (6) clarifies that.

Table (6): T-test results of one-sample to reveal the effect of information technology and communications (social communication site) on sustainable development. (w=137).

Hypothesis	The field	Mean	S.D	Degree of the freedom	T. value	Sig	Result of the hypothesis
Second basic hypothesis	Sustainable development	3.24	0.50	136	5.529	0.00	Rejection
First sub hypothesis	Family social coherence	3.67	0.57	136	13.842	0.00	Rejection
Second sub hypothesis	National belongings and loyalty	3.03	0.74	136	0.436	0.664	Accept
third sub hypothesis	Acquiring the skills and the knowledge	3.10	0.89	136	1.269	0.207	Accept
fourth sub hypothesis	Raising the productivity level and achieving the requirements of the work's market	3.02	0.93	136	0.252	0.801	Accept

It is clear from Table (6) that:

- the results showed the presence of effect of information technology and communication (social communication sites) on sustainable development from the point of view of the faculty members in the Jordanian universities, since (t-value) reached(5.529) with statistically significance (0.00), the general mean has been compared to the standard value which is (3), so the study's second sub hypothesis is rejected.

- The results showed the presence of high positive effect with statistical significance of information technology and communications (social communication sites) on the family social coherence from the point of faculty members in the Jordanian universities, the general mean has been compared to the standard value of the step wise which is (3), and (t-value) reached (13.842) with statistically significance (0.00), so the study's first sub hypothesis is rejected.
- The results showed the absence of effect with statistical significance of information technology and communication (the internet web) on the national belongings and loyalty from the point of view of the faculty member in the Jordanian universities, since (t-value) reached (0.436) with statistically significance (0.664), so the study's second sub hypothesis is accepted.
- The results showed the absence of effect of information technology and communication (social communication sites) on acquiring the skills and knowledge from the point of view of the faculty member in the Jordanian universities, since the general mean has been compared to the standard value of the step wise which is (3) an (t-value) reached(1.296) with statistically significance (0.207) which is a positive value but without statistically significance at significance level (0.05), so the third hypothesis is accepted.
- The results showed the absence of effect of information technology and communication (social communication sites) on raising the productivity level and achieving the requirements of the work's market from the point of view of the faculty member in the Jordanian universities, because (t-value)reached (0.252) with statistically significance (0.801),which is a positive value but it does not reach the statistically significance level (0.05), so the study's fourth sub hypothesis is accepted .

Summary of the results and discussion:

The results showed the presence of positive effect with statistically significance of information technology and communications (the internet web) on the sustainable development from the point of faculty members in the Jordanian universities, this is due to internet web achieving gains to development in Jordan at the personal level, and the work level, speed in acquiring the information, acquiring the skills and the knowledge through the researcher engines on the internet web that enables all the opportunity to discover and inquiry about any information they need, also there are available huge numbers of news sites, information sites about all types of knowledge and in many fields.

It is worth mentioning that all the relating previous studies have showed positive results of using information technology and communications in the different development fields, especially the sustainable development.

Results of the present study showed the presence of effect of information and communications technology (social communication sites) on sustainable development from the point of view of the faculty members in the Jordanian universities, especially in the field family coherence, this is due to the fact that social networks have become accessible to everyone at any place, and can be used through the mobile, and the available internet advantages through the offers from the competing telecommunication companies.

The researcher sees through the answers of the faculty members in the Jordanian universities to the questionnaire's items used in this study , that they perceive the negative impact of the un organized usage of this technology, but at same time they perceive that it is useful if appropriately and used in a responsible way.

So, they see presence of effect of using this technology on the sustainable development, but in the light of some limit and conservation about the method of usage and its purpose.

Recommendations:

Based upon the results of this present study, the researcher recommending the following:

- The work through the student's unions in the public and private Jordanian universities to organize training workshops to develop the social responsibility awareness about the internet and the social networks usage.
- Educating the Jordanian youth about preserving the family coherence and organizing activities through the universities to enhance the national belongings and loyalty, and positively using the social networks, keeping the nation's capabilities to achieve sustainable development at the social and economic levels.
- Focusing on the family and the parents regarding educating their sons especially at the early stages of adolescence and youth about the organized and responsible usage of the social networks and the internet benefits in attaining the needed information and skills to develop them from the cultural and scientific side, and acquiring the different skills far away from disorder and mental distraction, and wastes of time.
- Educating the Jordanian youth category about the important of the proper usage of the internet web and the social networks to serve the purpose of the sustainable development of the human and intellectual capital in Jordan.
- Promoting the role of the youth centers and information technology centers that are spreading in all part of Jordan in providing the useful information and the optimal usage of such technology, to achieve the maximum degree of benefit from the introduced services through its to serve the sustainable development purposes at the human, social and economic levels, without negatively affecting the mother culture regarding the national belongings and the social coherence of the Jordanian family.

References:**Arabic articles:**

1. Abuzant, Majeda & Ghnaim, Othman (2006). "Sustainable development theoretical study in the concept and the content". Al-manara journal. Vol.12, No.1, pp:149-172, Al-albait university.
2. Abu-Ali, Nayef. (2012). "Sustainable development in the traditional architecture in the kingdom of Saudi Arabia". Unpublished master thesis, Om alqura university, Saudi Arabia.
3. Ahmed, Yousef. (2013). Effects of the economic problems on the sustainable development projects (case study of the setting projects in Marzooq Basin), publishes Master thesis, Sudan University for sciences and technology, Sudan.
4. BuZeid , Sayeh.(2013). "Role of the rational ruling in Achieving the sustainable development in the Arab countries". Unpublished doctorate dissertation, Abu Bakr Belqayed university, Telmisian, Algeria.
5. Hareezi, Farooq. (2011). "Role of the modern technologies for communications in achieving the goals of the Human sustainable development strategy in Algeria". Master thesis, university of Farhat Ben Abbas, Staif, Algeria.
6. Al-ziyodi, Majed.(2012). "Role of information and communications technology for the project education development towards knowledge economy (ERFKE) in developing the life skills of the Jordanian public schools' students". The Arabic journal for development and excellence, Saudi Arabia.
7. Shabaneh, Lo'ai. (2009). Information and communication technology and its role in drawing the sustainable future, work paper introduced to the second Arabic statistics conference , Tripoli, Libya.
8. Al-Ssaedi, Sultan. (2013). Social networks... Danger or opportunities? , published stud on Aluka net, site :<http://www.aluka.net/spotlight/10923/40402>
9. A'bed, Zohair.(2012). " Role of the social networks in motivating the Palestinian public opinion towards the social and political change" . Al-Najah university's journal for researches- Humanitarian sciences – Vol.26, issue 6, 2012,pp: 1387-1428.
10. Abd Alrahman, La'aeb .(2009). Controlling the total performance of the economic institution in Algeria in the shadow of the sustainable development challenges". Cement industry case in Algeria, Internationa forum's research regarding the organization's performance and effectiveness in the shadow of the sustainable development, part one, publications of the policies and economic strategies laboratory in Algeria, Al-mseelah university, 10-11111/2009.
11. Abdalgani, Hassona. (2013). "The legal protection to the environment in the frame of the sustainable development" unpublished doctorate dissertation , university of Mohammed Khaidar , Bskara, Algeria.
12. Obeid, Hani. (2014). Effect of information and communication technology on the development in the Arabic nation, Ealaf journal number 4,42 , London.
13. Al-alami, Hussain (2013). "Role of the investment in information and communication technology in achieving the sustainable development" comparative study between Malaysia, Tunisia, and Algeria, published master thesis, FarhatAbbas university, saiteef – republic of Algeria.
14. Ammar, Helmi and Abo-Zaid, Abdalbaqi, (2001). Communications technology and its educational and social effects" Field study in kingdom of Al-bahrain "Janb Al-wadi university" , Egypt .
15. Awad, Husni.(2012) "Effect of social networks sites on developing the youths' social responsibility", experiment of youth council in Jerusalem, unpublished master thesis, Al-Quds university, Abo dees, social and family development program , Jerusalem , Palestine.

16. Kareem, Zerman. (2009) .sustainable development in Algeria through economic reviving program, university of Mohammad Khaider , Baskara – Khanshalah university center, Algeria.
17. Al-mandeel, Fa'eq . (2008). Architectural planning policies and their role in the sustainable and comprehensive development of the Arabic societies, work paper introduced to the regional conference, Amman , Jordan.
18. Al-Mansoor, Mohammad. (2012). "Influence of social networks on the audiences". Comparative study between the social sites and the electronic sites, unpublished master thesis, Denmark, faculty of literature, Arab Academy in Denmark.
19. Ministry of communication and information technology, Jordan. (2014). Jordan's rank in the Global report of information technology, According to the Axes and indexes, Directorate of the policies and strategies, 2014.

English articles:

20. Michel, Van soon. (2010) .Face book and the invasion of technological communities", N.Y, New York
21. Pike, Mary Ann.(1995). Using the Internet. 2nd ed. Indianapolis, IN : Que, 1995.
22. Combs, Tessa and Johnson, Deva. (2002).Sustainable Development and Cultural Planning, Watershed Media Center Bristol.
23. Goodwin, Neva R. (2003). Five Kinds of Capita: Useful Concepts of Sustainable Development, G - DAE Working Paper No. 03- 07. Tuftys uni.,Meelford. Wep site <http://ase.Tufts.edu/gdae>.
24. Lavanga, Mariangela .(2006). The contribution of cultural and creative industries to a more sustainable urban development. The case studies of Rotterdam and Tampere. Amsterdam institute for Metropolitan and International Development Studies (AMIDSt) Universiteit van Amsterdam (UvA). URL:http://www.academia.edu/576938/The_Contribution_of_Cultural_and_Creative_Industries_to_a_More_Sustainable_Urban_Development