



Legal Impact of Bridging the Digital Gap by Using ICT on E-Commerce in Jordan

Aref AbuAwwad

Department of Information Computer Systems, Zarqa University, Zarqa City, Jordan, drarefaa@zu.edu.jo

ABSTRACT

The information and communication basic rule of knew IT technology formula including the total types of technology used in the research centers of contemporary for scientific applications, etc, has resulted in the wide spread to cause gaps in the community great effects and this is what gives this technology to the social dimension where there has been a correlation between (ICT) and the knowledge society. Researcher tried through his experience, knowledge of theoretical, applied previous studies recognized the reality of (ICT), the knowledge society of Jordan, and the increasing use of the Internet in Jordanian society. This study showed that among the Arab states. Jordan occupied the fourth rank in the Arab Internet users, compared with the population. Jordan also occupies the sixth rank in the readiness of the Internet in the Arab countries and the fifty-second globally among 143 countries has the studies.

Key words: Information and Communication Technology (ICT), digital divide, knowledge-based society, the internet.

1. INTRODUCTION

According to the (2003) [1] the information and communication technology sector is the most important sectors in the economies of the countries, this sector as a key role in the economic wheel and economic growth, and the rate of economic growth increases with this based component on the Information and Communications Technology as a platform essential to the knowledge economy. This is shown through the consolidation activity and the development of effective institutions to bring desirable changes in performance, and this is what prompted the major economic transformations based on the adoption of the great technological development of information technology tools, which represent major challenges in several areas of the most important communications and information technology and its various applications which gives institutions the possibilities important to raise the efficiency and

competitiveness in the light of new surroundings characterized by openness and economic freedom. And build a society called knowledge society, taking into account the existence of a gap known as the digital divide.

It is hard to find one and comprehensive definition of the concept of digital divide, despite the early attempts to investigate the concept, with the first use of the concept began to report back to the year 1995, entitled (the fall from the network) issued by the US Department of Commerce says, (the digital divide is the gap between developed and developing countries in access to sources of information and knowledge, and the ability to use and exploit, but this gap scientific reasons technological and regulatory as well as the availability of infrastructure (it was Ali Hijazi (2005) [2] among the first Arab researchers who fought at a time early indications for the monitoring concept in the book of the digital divide has been understanding of the digital divide as a kind of Western civilization challenge, and the Department of researchers divide into two parts (content), (communication) as two-pronged key component of society and the knowledge economy, And they went so far as to talk about the existence of three gaps are: Mind the gap include gaps (thought, science and technology (the gap of learning, and the gap language, all of which are in the knowledge economy. Tomorrow this work (2005), [2] the first reference to a large number of researchers the Arabs. As Daniel Kelson (2004) [3] has used this concept from the perspective of (the gap between the users of information and communication technologies) referred to as the "digital divide". As he says: During the past two decades studied on the digital divide by researchers to determine the factors affecting them, and these factors: age, gender, economic status, work, and geographic location, social level (educational) and the work environment. The ITU defined in (2010) [4] the digital divide as the difference between those who have and do not have access opportunities or access to information through the media and communication technologies (fixed-line and mobile phone, computer and internet access broadband) may be the digital divide between developed and developing

countries, or between countries within the same geographical group or in the same country between rural and urban areas, or among the population, according to the characteristics (age, sex, income and race).

As it's known as Arab Club for Information magazine (2003) [5] as a knowledge-based society: a society depends on its development as a head of the information, computers and communication networks. Diab, Mohammed (2003) [6] focused on the role of (knowledge in development) by saying that the knowledge economy based on a new more profound understanding of the role of knowledge and human capital in the development of the economy and the progress of society. While Fraihat et al. (2004) [7] focused on the definition of the concept (content) by saying that: the knowledge society is a society that used the information Heavily to become the main vector of economic, social, cultural and political life, knowledge is here is a strategic resource for investment and a source of national income, and the scope for the operation of the labor force. But we must distinguish between the information society and knowledge society the community of knowledge as defined by UNESCO (2005) [8]: It is a society that has the capacity to produce and process information, transfer and use for human development. Hadi, Mohammed (2008) [9] believed we are now witnessing a transition from the information society to the knowledge society phase, generation first of the knowledge society is a society that used heavily information and communication technology tools in various human activities, while the second generation is aimed at the construction of a creative community through the web interface, combining technological factors, human and intellectual factors, both at the individual level or at the social level.

According to the Jordan Investment Board (2016) [10] the telecommunications and information technology sector is the third largest contributor to Gross Domestic Product(GDP) at a rate of (14%) and the number of private companies reached more than 400 companies currently employs approximately (16000), and contribute to an overall run (84000) workers directly and indirectly, making it the fastest locally-growing sector, with the sector provides a promising opportunity to increase Jordan's competitive advantage compared to countries in the region, which led to the establishment of Jordan are important measures designed to launch major initiatives that would develop the telecommunications and information technology sector , that Jordan became. it provides all the key elements needed by international companies to establish a regional gateway to serve the region.

According to the Ministry of Industry and Trade of Jordan (2010) [11] also growth rate is the highest in Jordan at a rate of 50% per annum, and is a development in the future entrance to the modernization of economic and social life in the Kingdom, the telecommunication sectors and technological solutions for banking and electronic online applications and solutions for trade and government

electronic solutions for multimedia, animation and communication centers the fastest growing areas within the sector.

In this area, the Jordanian government has taken it upon themselves to develop modern rules in the telecommunications, and proceeded to carry out reforms necessary to improve the supply and service, in addition to the establishment of other frameworks for development in the field of telecommunications and information technology, considering that the human element is the basic requirement for the prosperity of technological transformation.

2. RESEARCH PROBLEM

This research is trying to highlight the efforts made by the Jordanian government for the development and the development of information and communication technology sector. Where you can put the problem as follows:

Does Jordan really succeed in bridging the digital divides have? If that is true, what are the results in the field of information and communication technology?

In the light of the above, a set of research hypotheses put to answer the research problem. These hypotheses are a follow: Economies become based knowledge of the importance of the spread of ICT industry and the universal use of tools today.

With the development of this industry, Jordan has increased the use of ICT by citizens.

The application of ICT in Jordan allows the creation of a sound course of action and realistic help achieve efficiency and quality and good governance and confront various challenges at the regional and international levels and control knowledge.

This research aims to clarify the importance of ICT in achieving economic and social development, and it also aims to identify the Jordan experience in this area through the Jordan Ministry of information and Communications Technology and other stakeholders in this area. As a part of the following addresses:

3. REALITY OF ICT IN JORDAN

According to the ministerial statement of the government of Dr. Abdullah Eagles (2013) [12]: The Jordanian government has to give a strong impetus to the telecommunications market through two gates in two basic: the mobile phone and the internet, so edit these contributed sectors to give a push Jordan quickly to prepare for the adoption of the fourth generation of communications, was approved on an ambitious program until 2016 on the back of the e-government program and turn Jordan into a regional focal point in the field of ICT.

According to the World Information Technology Report (2015) [13]: Jordan was ranked 52 in the world at the center of the main technological readiness, which branch from it a

record four axes of technology. The report showed the occupation of Jordan ranked 38 globally in technological environment axis ahead by 3 orders of what it was during the years 2013 to 2014, where he occupied the Jordan ranked 39 in the world in providing policy and regulatory environment for the work of the information and communications technology sector, while ranked 36 in providing innovation and business environment.

4. IMPORTANT LEGISLATION AND LAWS ON INFORMATION ICT:

Among the legislation that extolled the process of development of ICT, the text of temporary law for crimes of information systems in 2010 (2010) [14]. All of the income of intentionally a website or by any means an information system without a permit or in violation of, or exceeding authorization shall be punished by imprisonment for not less than a week and no more than three months or a fine of not less than One hundred dinars and not more than (200) two hundred dinars, or both. Jordanian dinar is equivalent to 1.4 US dollars. Article 4 said both enter and publish are used intentionally program via the Internet or by using an information system in order to cancel or delete, add, or destruction, disclosure or destruction of, obscure, or amend, modify or transfer, copy, block or jam or shut down or disable the work of an information system or access or change the website or cancelled or destroy or modify its contents or his occupation or impersonate described or impersonate the owner without authorization or in excess of, or contrary to the statement shall be punished by imprisonment for not less than three months and not exceeding one year or a fine of not less all (200) two hundred dinars and not more than (1000) dinars, or both penalties. While article 5 said that Any person who intentionally, without a legitimate reason to take to intercept or eavesdrop on what is transmitted across the network or any information should be punished by imprisonment system for not less than one month but not more than one year or a fine of not less than (200) two hundred dinars and not more than (1000) thousand dinars, or both penalties. Also article 8 said Any person who intentionally send or publish data, information via the Internet or any information involving defamation or a glass or demean any person liable to a fine of not less than (100) one hundred dinars and not more than (2000), two thousand dinars. Article 10- Any person who intentionally using the Internet or any promotion of prostitution or debauchery Information System should be punished by imprisonment for not less than six months and a fine not less than (300) three hundred dinars and not more than (5000) five thousand dinars. Article 11- shall be punished by hard labour for each of the temporary deployment send or intentionally by the information system or information network data, information or set up a website to facilitate or carry out terrorist acts contact group, organization or association are terrorist acts or to promote their ideas, or their funding. And article 15 said that Anyone who commit, anticipate, intervene, or incitement to commit

an offense punishable under any applicable legislation by using the Internet or any information system that punishes the penalty provided for in that legislation. Article 17- shall establish a public interest litigation and personal right to the defendant in front of the Jordanian judiciary if not committed any of the crimes stipulated in this Law, using information systems within the Kingdom or damaging any of the interests or one of its residents, or resulting from the effects of crime in whole or in part, or committed by one of the people living there.

The general policy document ICT and mail sectors (2012) [15], the Ministry of Communications and Information Technology held that the sectors of telecommunications and postal services are subject traditionally organize their being public services, while the information technology sector, is not subject to traditional regulation, but the government - according to the ministry - a role in creating a legal environment and regulatory support, as it seeks government through clear and declared policy to promote initiatives and investments in the sectors concerned and determine the necessary regulatory role for these sectors.

The document contained the essential topics, including ensuring the effectiveness of the Telecommunications Regulatory Commission, where the government will work on the reform of personnel and wage policies and bonuses in the TRC policies so that the commission can create an integrated team of highly skilled and maintain it in order to achieve the important mission, and its adoption of rules to improve performance of objectivity and transparency aspects.

And on the telecommunications sector, the government believes that the focus should be on creating necessary to achieve effective competition conditions, and to encourage the entry of operators based on ownership of the facilities in the fixed telecommunications market basis and to compete on the basis of services in the mobile communications market, so as to include the steps necessary to create effective competition conditions to reduce the effects of domination, and reduce barriers to entry to the market, and finding new possibilities to enter the market, and support a culture of compliance with the regulation, and a review of the universal service.

On the radio frequency spectrum, the body with the ministry will work on drafting a national strategy for the radio frequency spectrum and development, where the body will develop a method for frequency pricing depends on market factors to take into account the different ways to use communications (fixed and mobile phones, public and private) and broadcast and use by bodies the public.

According to (2002) [16] the information technology sector will be under the policy to continue to apply the open market principles on the information technology sector, as the government considers that the Competition Act 2002, which

provides adequate safeguards against anti-competitive in this sector activities at the moment, It also called for the policy to work to increase demand for personal computers and Internet access and the provision of access to broadband Internet and increase its spread. In addition to the actual needs of the market and factors of economic and social development in Jordan technical developments rapidly, especially in the sectors of ICT, and the introduction of new services such as Voice Over Internet Protocol (VOIP), and the integration of communications with the media audio-visual media and information technology, and the increase in demand the radio frequency spectrum as a result of the emergence of demand for a variety of wireless communications services and their uses. Based on the (2012) [17] All of this has led to the existence of a comprehensive system and plan to use the spectrum effectively as an integral part of the Jordan economy.

5. THE DEVELOPMENT OF ICT SECTOR IN JORDAN

According to Jordan's Telecommunications Regulatory Authority (TRA) (2012) [18] can refer to the development of this sector within the following historical periods: first-period (1921 – 1971) The beginning was when it was created in 1921 lightning circle, mail, which was introduced by the telegraph and mail services for the Emirate of Transjordan. In 1930, the British telecommunications company (the cable companies and telecommunications) with the help of the Department of lightning and mail in the development of telecommunication services and international links. Cooperation with the cable companies and wireless communications for nearly four decades has continued. In 1951, the establishment of the Ministry of specialized transportation in 1961, dedicated to the improvement and expansion of telephone and telegraph communications services to suit the needs of the country where he has become fully and directly responsible for all national communications within the Kingdom. It was the first run automatic exchange in Amman with a rough capacity reached 5000 line. It was in 1966 to end cooperation with British Telecom (cable companies and wireless communications), and responsibilities entrusted to the Ministry of Transport. 1971 was the establishment of telecommunications Foundation, which is owned by the government, where she secured telecommunications satellite ground them and for the country and organized. Second period (1972-1987) Jordan Telecom network has significantly expanded with the rebound in oil prices and the increase in cash transfers from expatriates, bringing the Jordanian economy flourished and increased public spending by the government on networks. Third period (1988-1999) in 1988, he was granted a license to the company of Jordan automatic appeal for paging service, was the Ministry of Transportation's name was changed to the Ministry of Post and Telecommunications in 1992. In 1993 were allowed private investment to the sector in the telecommunications projects has been a national program designed to increase the

prevalence of telephone services 7.8 to 12 lines per 100 inhabitants.

The first license to operate a public mobile telephone service company of Jordan Mobile Telephone was Services / Fastlink. The Telecommunication Regulatory Commission was established. It was the adopted of the Telecommunications Law No. 13, at 1995. The year 1997 saw the transfer of telecommunications organization to a company owned by the government has been completely recorded in the register of companies under the name "JT" as a first step towards the privatization of the company. The awarded company Petra Jordanian mobile Telecommunications (JT) / MobileCom in the year 1999, the license to provide mobile phone service in the Kingdom.

In the new millennium within (2000-2004), Jordan became a full member of the World Trade Organization (WTO), Jordan has introduced its obligations regarding the telecommunications sector within the presentations made to join the organization, which included a fully liberalized telecommunications sector by the end of 2004. It was the sale of 40% of JT shares to the Arab Bank France telecom and 8% in favour of the social security Corporation and 1% of the staff of the Jordanian telecommunications company. The law of the temporary communication No. 8 of 2002 by which the Ministry of Post and Communications changed its name to "The Ministry of Communications and Information Technology," and the emphasis on the independence of the Telecommunications Regulatory Commission also entrusted the Authority regulate telecommunications services and information technology functions in the kingdom. In October of 2002 it was sold accounted for 10.49% of the shares of the Jordanian telecommunications company in an initial public offering. The document the government's policy in the sectors of ICT and postal sectors was issued a, as part of government's efforts to implement its commitments to the World Trade Organization in the liberalization of the telecommunications sector, which confirmed the government's intention to edit sub-sector fixed contacts with the end of 2004 and end the duopoly of the two phones mobile at the beginning of 2004. It was granted the first license to provide mobile radio services for the company's new generation / Express, and in late 2003, the Commission shall publish its program to issue an additional license for a new player in the mobile telecommunications sector in the Kingdom of application of the general policy of the government in the sectors of ICT and postal sectors.

From year 2005 to year 2009 was the beginning of another phase of the national numbering plan in respect of the relevant portion mobile communication application, by adding (eighth) new box and unify mobile communication code number (07). In addition to ending the monopoly of Jordan Telecom to provide fixed telecommunications services and fully opened the fixed telecommunications market. In May 2005, he was awarded the first individual contacts

General Bahraini Jordanian company for IT and communication / Batelco license - Jordan to provide fixed telecommunications services. : Each of Fast link, Umniah and Express move to the Integrated Framework for licensing and regulation. It was issued in June 2006 the government's decision to sell its stake amounting to 41.5% of the shares of Jordan Telecom. Where the sale of shares to France Telecom and some local and regional authorities have been put up the remaining shares to subscribe to the Amman Financial Market, but the sales process did not fully succeed and thus remained the government owns 11.6% of the company's shares. In the same year, the Commission approved the tender documents for licenses to use the radio spectrum frequencies for fixed wireless access services packages petition Fixed Broadband Wireless Access (FBWA), based on a Cabinet decision dated 12/9/2006, containing the approval of follow "put public tenders style "the granting of licenses for use of the radio spectrum for fixed wireless access services packages petition, which was later hereby granted five licenses to use frequencies to companies to provide this type of service.

In 29/5/2007 Council of Ministers decided to approve the document public policy of the government in 2007 in the ICT and e-sectors. In that date it was the completion of the transfer of non-licensed categories to the Integrated Framework for the licensing and regulation of the transfer of all of Jordan Telecom and MobileCom. In January 2008 the government completed its entire stake sale in Jordan Telecom to become France Telecom owns 51% of the company's shares, in addition to the spread between the Public Institution for Social Security, Inc. Noor Financial Investment, the armed forces and security agencies quotas, and the remaining 7% of the stock for trading on the Amman stock Exchange. In June 2008: the Commission announcing its intention to introduce third-generation services in Jordan. And in mid of august 2009 was awarded the Orange cellular company license to provide third-generation services in the Kingdom.

Among other developments in this sector (2016) [18]: through year 2008 The government has completed its entire stake sale in Jordan Telecom to become France Telecom owns 51% of the company's shares, in addition to the spread between the Public Institution for Social Security, Inc. Noor Financial Investment, the armed forces and security agencies quotas, and the remaining 7% of the shares for trading on the Amman Stock Exchange. And The Commission announcing its intention to introduce third-generation services in Jordan. By mid-August 2009 was awarded the Orange cellular company license to provide third-generation services in the Kingdom. In June 2010: The Company was Jordan Mobile Telephone Services (Zain) granting license to provide third-generation services in the kingdom. Through 2012 the license to provide third-generation services in the UK has been awarded the company (for security). And The Council of Ministers decided on 28.11.2012 to approve the document the government's policy in the ICT and e-sectors for 2012.

Finally by 2014 and 2015 the approval of the company Jordan Mobile Telephone Services Order (Zain) to license frequencies in the bands (Mhz 1800) and (2100) MHz, approval of the request of the company (Orange Mobile) to license frequencies in the range (1800) MHz, and approval of the request of the company (for security) to license package of frequencies in the range (1800) MHz.

According to Khasawneh, Ahmed (2012) [19] believes that the IT sector in Jordan is a dynamic sector which is added value, and plays an important role in moving the other major sectors of the economy, has emerged as a strong economic factor in Jordan since 1995 and adopt all primary and secondary economic activities in the Kingdom on the input arising from the information technology sector with significant support from the presence of His Majesty King Abdullah II, who show a strong interest in the information technology sector as a new tool of the Jordanian economy, when he face of specialists in information technology in the private sector in 1999 to prepare a realistic strategy and action plan for the development of the emerging IT sector in Jordan. Initiative was launched (Rich) in the same year, and included a detailed strategy and plan of action for a period of five years for the development of the IT industry in Jordan and enhance their competitiveness in the regional and global markets and the establishment of a strong and effective partnership between the public and private sectors. In order to institutionalize the dynamic partnership between the public and private sectors in the ICT sector it has been the establishment of the two institutions are the Ministry of Information and Communication Technology to develop a policy and strategy to develop the sector and the Association of Information Technology in Jordan, which also became known as (Intaj). And then came after that (Rich 2) and (Rich 3) to document the march of Jordan in the development of technology vital and effective information industry initiative, through the implementation of a comprehensive strategy designed to promote competition in the local, regional and global markets, and to identify the successes and challenges facing Jordan in the development of industry Biotechnology and effective information.

The previous researcher adds that between 1999 and 2012, the ICT sector became the fastest growing sectors of the Jordanian economy, with an average growth rate of 60 percent per year in revenue, exports, and jobs. The sector has grown revenue from 50 million US \$ to 2 billion US \$, in addition to its contribution to 14% of the GDP of Jordan. While the number of jobs in the sector increased from about a thousand jobs to more than 25,000 functions in the same period. When has that number of jobs related to information technology in other sectors, such as banking, media and others, the information technology sector have now employs nearly 80,000 Jordanian telecommunications market and Information Technology has seen significant growth thanks to market-oriented policies and attracting foreign direct investment, and evidenced by the demand for new business

owners to expand the uses of the internet market, and competitive workers in the sector wages. The culmination of that, Jordan has already all Arab countries in the liberalization of the telecommunications market, as updated to 80% relating to telecommunications and information technology laws, it became an attractive business climate for domestic investment and external.

From the legislative point of view, Jordan has himself established the first independent body in the region to regulate the telecommunications sector, which acts to create a fair environment, transparent, and eligible for competition between investors and became the Jordanian telecommunications sector occupies one of the three top ranks of foreign direct investment, and doubled the size of returns for ICT, which significantly affect the growth of the national economy, such as education, public administration and commercial and manufacturing services. The follow Jordan series serious measures to meet the elements of competition in the international ICT market, The infrastructure eligible, growth and development in the skill and experience of human resources trained and qualified. Results Global Information Technology Report has shown that Jordan has made significant progress in the rankings in each of the network readiness index. This is a classification reference tool to identify the strengths and weaknesses of the national information and communication technology and to evaluate progress. It also highlights the continuing importance of the application of information and communication technology and development for economic growth. Highlighting the network readiness, which is an indicator for measuring the degree of readiness of any nation or community to participate in and benefit from the developments in information and communication technology, and examination of public and regulatory macroeconomic ICT environment. While the Digital Access Index is used (Dai) for measuring the total capacity of individuals in any country to access and use of information technology and new communications were built Dai around four key vectors are: infrastructure, affordability, and quality of knowledge and effective use of ICT. Dai and allows countries comparing the strengths and weaknesses relative also provides a means transparent and measurable worldwide for tracking progress towards improving access to ICT.

6. INDICATORS OF MOBILE COMMUNICATIONS

According to Jordan's national strategy for ICT (2012) [20], which was published in local newspapers on 09.09.2014 by the Ministry of Communications and Information Technology, the aim of this strategy was to focus on the competitive areas and sectors that can achieve the value creation through the formation of economic groupings and integration to maintain Jordan's competitiveness in ICT. While total revenues in ICT for 2011 amounted to two billion US \$ with 0.85% growth rate, while the target for revenue in 2017 is 3.15 billion US \$, with 450 million US \$ of

investments. This can be achieved growth in ICT in the future through:

- Development of intersections with the competitive sectors in Jordan, such as the pharmaceutical industry, architecture and engineering to enable the information and communications technology from spreading
- The advancement of digital content to consumers via the Internet and mobile phone usage

Table 1: Number of fixed telephone subscribers (in thousands) in the years 2009 - 2015 [21]

Year	2009	2010	2011	2012	2013	2014	2015
Fixed telephone subscribers	501	485	424	400	378	378	376
Mobile subscribers	6104	6620	7483	8984	10300	11092	13100
Internet subscribers	174	232	313	426	5300	5700	7900

According to the table (1), the researcher find that during the period 2009 – 2015, the number of fixed line subscribers by about 24,000 subscribers, which is decreased of approximately 6%, and the yield to enter the cellular phone service clearly. The number of subscribers in the cellular phone has increased by 22%, which is more than the population, residents, who number around 10 million. According to statistics organizing Jordanian Telecommunications Regulatory Commission (2016) [21] prevalence prepare fixed telephone subscriptions reached, compared with the population of about 4.4% end of the third quarter of last year 2015, compared with the recorded three years ago, where it was recorded in that time nearly 6.4%.

It comes back down to the preparation of fixed telephone subscriptions at a time when demand and adoption of Jordanians on mobile phone services is growing, and the contributions that the end of the third quarter of last year, the base recorded approximately 13.1 million subscription. In exchange dropped fixed telephone subscriptions increased by 9% in three years (from the third quarter of 2012, until the end of the third quarter of 2015), where the mobile phone subscription base by 50% grew, which shows clearly outweigh the cell phone and coverage to the growing needs of the Jordanian telecommunications services.

The Minister of ICT Dr. Azzam (2014) [22] : pointed in Al_Rageeb Aldawlee journal dated 07/07/2014 that the technological infrastructure in Jordan and of the arrival of cell phone users ratio to 156 percent of the population, and the arrival of the prevalence of Internet use to 86 percent refers to the importance of ICT to the Jordanian society, and the willingness of citizens to rely on technology and allow penetration his daily life, which makes the ICT as the cornerstone of achieving the aspects of economic development.

Official data released by the Telecommunications Regulatory Commission (TRC) refers to the expansion of the Internet user base in the Kingdom in various service techniques go beyond the end of the first quarter of this year, the barrier of 7.9 million users. This is confirmed also the site <http://www.internetworldstats.com/stats5.htm> (2016) [23] is equivalent to the proportion of 86.1% of the population.

This growth comes in the Internet user base in the Kingdom at a time when the market is witnessing huge competition from major companies Internet service providers broadband various technologies, where Internet services are offered today in the local market several techniques are wired technology called Asymmetric Digital Subscriber Line (ADSL) which is according to (2016)[24] a data communications technology that enables faster data transmission over copper telephone lines rather than a conventional voice band modem can provide, that rely on ground phone extended and used, and the technology of Wi-MAX (Worldwide Interoperability for Microwave Access), according to (2016)[25] which is a family of wireless communications standards initially designed to provide 30 to 40 megabit-per-second data, and leased circuits for the use of institutions and companies, fibre optic, and technology third generation, fourth generation that entered the local market earlier this year, offering service within each technology more than a provider. This growth also comes in a number of service subscriptions at a time when demand and adoption of Jordanians on the Internet social networking and conducting business matters in the various sectors of the economy increases.

Among the measures aimed at the development of the Internet, activate and secure repeated interruptions, the expansion of the network quickly and effectively regularly, it brigades of the Strategic Plan of the Ministry of Communications and Information Technology for the years 2007-2009 (2015) [26] to provide communications networks developed to support the education sector and other sectors as follows:

- Public universities developed network expansion.
- Particularly linking public schools and colleges of the official community and range of knowledge stations across the kingdom high-capacity fibre-optic network construction.
- Create and manage the centre and run operations to serve the national fibre optic network.
- Optimal utilization of the network to contribute to the provision of infrastructure and services provided to the public sector and official organs.

Also, Jordan (2010) [27] connected to optical fibre stretching around the world network , and employs Wireless Application Protocol (WAP) and the system of transfer of information General Packet Radio Services (GPRS) and local efforts to provide adequate infrastructure continue as announced Jordan Telecom Group (JTG) in a month April last year for the establishment of technology city and the media and

communications in the suburb of Naour in the capital of the province and an investment of more than 500 million dinars, which contribute to the necessary infrastructure for creation of the deployment of internet culture to implement the visions of the property and make Jordan a regional ICT hub. There are also directed governments to grant customs exemptions on equipment and devices that go into the infrastructure sector, the core of which helps to strengthen the infrastructure of the sector and increase in Internet penetration rates.

7. DEVELOP ICT SECTOR IN THE ARAB COUNTRIES

Jordan occupied, according to the International Telecommunication Union report, which is entitled to adopt information and communication technology and prospects in the Arab region

For the year 2010 (2012) [28], Regional ranked sixth among Arab countries in the field of ICT development. The Ministry of Communications and Information Technology have ten national priorities of cyber-security [35][36]. All of them contribute to the achievement of strategic objectives and help prevent attacks and protect the national infrastructure damage and minimize the damage and recover from attacks. These priorities: Risk Management, National Team to address Computer Emergency, Security awareness and capacity building program, National standards and policies for information security, The legal and regulatory system, International cooperation program for information security, Secure Systems / national information networks, and National Critical Infrastructure Protection Program

The strategy calls for the establishment of a supervisory organization called the National Agency for information security and cyber security. This should be the agency operates as a central body and national governmental and non-governmental organizations regarding information assurance and cyber security issues. According to international reports, studies, and reports of the World Economic Forum for the year 2015 concerning the readiness of online networks Jordan occupied the sixth rank among the top ten Arab countries

Table 2: the readiness of Internet Index (2016) [29]

Rank	1	2	3	4	5	6	7	8	8	10
State	U.A.E	Qatar	Bahrain	S.A.	Oman	Jordan	Morocco	Egypt	Lebanon	Algeria
Rank 2015	23	27	30	35	42	52	78	94	99	120

Many of the Academy and International Studies indicate that Jordan progress in the use of the Internet. The researcher discovered Jordan became the fourth-placed Arabs in the use

and Internet penetration within the Jordanian society and at all levels. The following table shows these ratios in the Arab countries. Where the State of Bahrain comes in the first place and the proportion of 96.4% of the population, and the United Arab Emirates increased by 93.2% and is followed by the State of Qatar by up to 91.9%. Jordan occupied the fourth rank ratio of 86.1% of the population

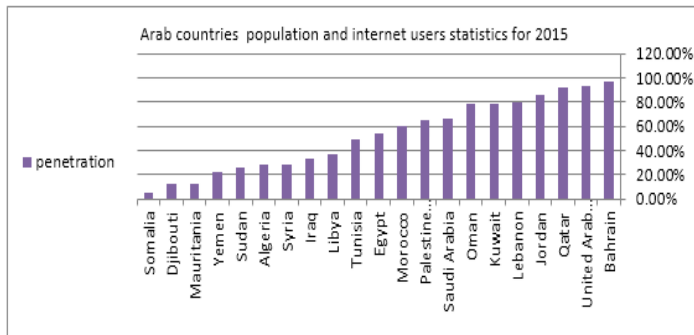


Figure 1: Percentage of Internet users, compared with the population in the Arab world in 2015 [32]

From the above, the researcher found that the ICT has become occupies an important place in most sectors in the current era based on knowledge and information revolution have revealed these types of technology are important variables touched every aspect of the lives of individuals and society because of its characteristics, especially the speed in performance and reduce costs, and ease of use, this technology has been reflected in the activities of several countries, including Jordan, adopting employed in various fields as a tool contribute effectively to the development, growth and performance improvement.

8. RESULTS

The researcher after this study reaches the following results:
 -From figure-1 Jordan became the fourth in rank in the field of Internet users compared to the number of the population, where the ratio was about 86.1% of the population and this statistic based on international statistics supported several destinations Academy prepared by the researcher.
 -Through international studies and global reports for ICT Table (2) shows that Jordan occupies the sixth rank in the readiness of the Internet in the Arab countries and the fifty-second globally among 143 countries has the studies.
 -The Jordanian government has taken between 2010-2005(2014) [32] upon themselves to adopt a new policy concerning the ICT. The sector benefited generally from significant and considerable investments, in terms of total revenue for the ICT sector in the year 2013 reached the limits of US \$ 2.2 billion by Minister of communications and he told Dr. Azzam lashing at a news conference on 09.10.2014. Allocated for this sector investment has exceeded \$450 million, and Jordan also plans to get into the investment returns in the year 2017 up to about 3.15 billion dollars. The estimated number of operating companies in the sector (2010) [22] about 1,500 companies with interests in ICT solutions for

banking and e-government and online applications and solutions for electronic commerce solutions, multimedia animation and call centers, including branches of major international companies, there are achieved cadres Jordanian such as neighbors sites and written and Rubicon and talismans attracted partnerships with international companies success stories where announced "Intel" company specializing in the computer industry segments in mid-2009 entered to invest in two companies specialized in digital content in Jordan are "Jeran" and "Shoofee TV" acquired Yahoo's global company on the Jordanian site is written. Recently joined the "Google" company for membership in the Association of Jordanian IT companies 'production', indicating that Jordan an attractive environment for investments and global partnerships distinct from the states of the region.

-The current situation with respect to the Internet is strong compared to the Arab countries, and statistics indicate that the total Internet users in Jordan reached 7.9 million people until the end of 2015, by up to 86.1% of the population.
 -Jordan has made a qualitative leap in the field of mobile phone, with a bypass ratio of population density of 2015 as the number of mobile phone users to about 11.5 million telephone lines by as much as 118%, one of the highest percentages recorded in the region currently.
 -The Jordanian government has put the general framework for the promotion of information and communication technologies through the establishment of the Ministry of Communications and Information Technology Investment Promotion Board, the telecommunications sector and information technology, and the Telecommunications Regulatory Commission. And it issued a number of laws relating them temporary law for crimes of information systems for the year 2010 and the policy document of the government in the sectors of telecommunications, information technology and postal sector

9. CONCLUSION

From the findings of this study can be formulated several recommendations, which are improve the political and administrative incentives aimed at delivering ICT to all members of the community. In general, the provision of infrastructure broadband and high speeds in the Kingdom and the work of the permanent maintenance to them. However, the development of legal frameworks and legislation to keep all the security and integrity of information and the rights of ICT users [35][36]. Also, encouraging the use and dissemination of ICT and dissemination of modern methods of government agencies, and private e-government. Increased foreign direct investment and support domestic investment. However, the development of vocational training by working with training and existing educational institutions to provide flexible training that meets the needs of the ICT sector. Also, the development of scientific research in the field of development of ICT.

10. ACKNOWLEDGMENT

This research is funded by the Deanship of Research and Graduate Studies in Zarqa University /Jordan.

REFERENCES

1. Areen, Arab Club Informatics Magazine, Issue 28, February 2003 Page 9
2. Nabil Ali and Nadia (2005), the digital divide, Arab vision for the knowledge society, Hijazi, the world of knowledge, August, p. 47-51
3. Daniel Collision, 2004, (Digital Divide, School Library Media Activities, 20 (6) Education Module P. 37
4. ITU, Measuring the Information Society, the ICT Development Index, Geneva, 2010, P. 40
5. Riyadh, Abdul Rahman al-Haj, the knowledge economy, Arabian Advanced Systems, a magazine (makers of the event) number 29 date 01/11/2005 Page 7
6. Diab, Mohammed, knowledge-based economy where we are from, magazine electronic
7. communication (Contemporary Issues), No. 6.2003, page 26, <http://www.balagh.com/islam/islam.html> 25/12/2015
8. Freihat, Essam Ahmed, prepare the workforce for Manma information, Journal of General Administration of Educational Technology and Informatics (Educational Development) 19/12/2004 Page 6-8
9. UNISCO toward Knowledge Societies. Paris: Unesco Publishing 2005 p. 27
10. Abdul Hadi, Mohammed Fathi, the economy and the information society: Some digital divide indicators in the Arab world, Saudi Arabian club Informatics magazine 3000 first edition 2008 Page 7
11. Investment Promotion Board, the telecommunications sector and information technology, investment Jordanian body <http://www.jic.gov.jo> date of the visit 28/03/2016
12. The Ministry of Industry and Trade, the Industrial Development Directorate, a summary of the information and communication technology sector in 2010, Page (1)
13. <http://www.mit.gov.jo/EchoBusV3.0/SystemAssets/PDFs> visit date 14/4/2016
14. Ministerial Statement of the Government of Dr. Abdullah eagles, the second part, the government's program of work from 2013 to 2016 the date of April 13, 2013 page 51-52
15. The Global Information Technology Report 2015, ICTs for Inclusive Growth, World Economic Forum, Insead, p 268-270
16. Law of the temporary No. 30 information systems crimes for the year 2010, the Official Gazette No. 5056, page 5334 Date 09/16/2010
17. The policy document of the government in the telecommunications, information technology and e-sectors, Page 20 are available at: http://www.moict.jo/ar/arabic/documents/generalpolicys_tatement2012.pdf
18. Joran's competition law Provisional No. 49 of 2002, the Official Gazette No. 4560 page 3836, the date of 15/08/2002
19. The policy document of the government in the telecommunications, information technology and e-sectors, Page 20 are available at: http://www.moict.jo/ar/arabic/documents/generalpolicys_tatement2012.pdf
20. TRC visit date 14/4/2016 http://www.trc.gov.jo/index.php?option=com_sitemap&lang=arabic
21. Ahmed Al-Khasawneh, an overview of the information and communication technology in Jordan and his quest to be a regional hub distinct, 24/05/2012, https://hu.edu.jo/f_news_0_0.aspx?newsid=23866&dp
22. The Ministry of Communications and Information Technology, the National Strategy for Information and Communication Technology, <http://inform.gov.jo/ar-jo> date of the visit 04/01/2016
23. Figure prepared by the researcher
24. Dr. Azzam Al-lashing Minister of Communications and Information Technology in the international Sergeant on 07/07/2014
25. <http://www.internetworldstats.com/> date of the visit 31/03/2016
26. https://en.wikipedia.org/wiki/Asymmetric_digital_subscriber_line date of the visit 14/04/2016
27. <https://en.wikipedia.org/wiki/WiMAX> date of the visit 14/04/2016
28. The Ministry of Communications and Information Technology, the Strategic Plan of the Ministry of Communications and Information Technology for the years 2007 to 2009 p. 6
29. The Ministry of Industry and Trade, a summary of the information technology sector and telecommunications in 2010 p. 8
30. The Ministry of Communications and Information Technology. ITU report, the top connecting the Arab world in 2012, connected to everyone by 2015, entitled "The adoption of information and communication technology and prospects in the Arab region," p 17, 65
31. Figure prepared by the researcher
32. Figure prepared by the researcher
33. World Economic Forum; The global Information Technology Report 2015; Date of data collection or release: 15/4/2016; www.weforum.org/gitr
34. The Ministry of Industry and Trade, the Industrial Development Directorate, a summary of the information and communication technology sector in 2010, Page (4) <http://www.mit.gov.jo/EchoBusV3.0/SystemAssets/PDFs>
35. Sana' Haimour, Mohammad Rasmi AL-Mousa, Rashiq R. Marie, Using Chaotic Stream Cipher to Enhance Data Hiding in Digital Images, International Journal of Advanced Trends in Computer Science and Engineering, 9(4), July - August 2020, 5236 - 5242, doi.org/10.30534/ijatcse/2020/153942020

36. Mohammad Rasmi Al-Mousa, Analyzing Cyber-Attack Intention for Digital Forensics Using Case-Based Reasoning, International Journal of Advanced Trends in Computer Science and Engineering, 8(6), November - December 2019, pp 3243 – 3248, doi:10.30534/ijatcse/2019/92862019