

**Market Brief on
ICT Sector
in Jordan**

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Executive Summary

The ICT sector is constantly under the spotlight in Jordan as one of the country's main priorities. Although technology is a key pillar of economic growth, the quality of public institutions are crucial for their role in ensuring the protection of property rights, the objective resolution of contract and other legal disputes, efficiency of government spending in public services, and transparently at all the government.

The leadership role of His Majesty King Abdullah II and the work of the government's ministers, along with public/ private sector initiatives such as REACH strategy, are identified as highly successful components of Jordan's ICT industry development. Jordan has achieved some remarkable achievements in regulatory and legal reform that have measurably improved Jordan's ICT Readiness.

Some of these achievements were to build a digital network that allows 100% of the population to have Internet accessibility with good quality for around 500,000 users. E-Government program aims to streamline procedures and improves both internal operations as well as services to the public.

On another level, many Jordanian universities had signed agreements with reputable universities to enforce the latest technology in their curriculums to improve the academic plans that matches the business requirements of local and international markets.

Based on Information Technology Association- Jordan (int@j) statistical data, which has been a focal player in Jordan's ICT evolution, the year 2003 witnessed an increase of 30% in the total revenues of the ICT sector. The investment grew around 17% and also the employment grew by 100% over the last year.

The government has adapted many laws and regulations which lead to reduce the import barriers such as deducting 2% per income tax on the value of all goods imported in to the Kingdom starting last July. This achievement doesn't merely remove a massive financial burden off the shoulders of ICT companies, but rather enforces the value of strategic dialogue between the public-private partnerships in this sector. A package of incentives and exemptions is also available to encourage investment in the Kingdom, for example: Projects are exempted from income and social services tax by 25%, 50%, and 75% for a ten year period depending on the location and sector of the project. Imported fixed assets are 100% exempted from customs duties and taxes, and imported spare parts for fixed assets are exempted from fees and taxes up to 15% of the total cost of the fixed asset.

ICT equipment market witnessed a remarkable growth rate of 52.5% in the year of 2003. This high growth rate indicates the prosperity of the ICT equipments' market and the bright potential expected for the overall industry in Jordan on the other hand. U.S.A. is ranked third in the Jordanian's ICT market with a market share of 11.16% after China and Germany.

In order to invite Business leaders and investors from all over the world, there are many tradeshows and events which take place in Jordan every year.

1. Market Overview and Highlights

The Hashemite Kingdom of Jordan is standing at the threshold of a major leap into the realm of a network world, having identified development in communications and information technology as the crucial building blocks to creating a dynamic national economy. On the macro level, Jordan has taken quick and decisive steps to secure the signing of WTO, Jordan-USFTA, and EU agreements. Also, with a young, literate, well-educated society already providing man-power and technical expertise throughout the Arab region, Jordan is uniquely placed to play an increased role both regionally and globally. Therefore, Jordan is laying out its plans to ensure that the country takes maximum advantages of the opportunities presented by the information society.

With the ascension of His Majesty King Abdullah II to the throne of the Hashemite Kingdom of Jordan, the stage was set for the development of a new vision for the economic development of the country. As a strategic decision, the development of the information technology sector was selected as having the greatest potential for contributing positively to Jordan's future success.

Jordan is recognized as a regional source of qualified and efficient professionals in fields of engineers, pharmaceuticals, healthcare, finance, management, and software development specialists. Quality and availability of ICT professionals come from the quality of well established educational system that graduates over 1,600 students from 19 universities in the field of computer science, computer engineering, information technology, computer technology, communication engineering and electronic engineering.

ICT Sector in Jordan is privileged to receive the full support of His Majesty King Abdullah II, as a result of this royal inspiration is known as Jordan's REACH initiative. This inspiration aims to maximize the abilities in the ICT sector locally, regionally, and globally. Some of these efforts to improve the services to public are listed herein:

1. Jordan Telecom has built a digital network that allows 100% of the population to have Internet accessibility with good quality with a total of 477,584 users.
2. All secondary students (173,000) are learning ICT and Internet in Jordan.
3. E-Government program which aims to streamlines procedures and improves both internal operations as well as services to the public.
4. Roughly, ICT training centers train around 20,100 persons annually in Internet use and other applications.
5. A proliferation of Internet cafes, with connection costs at reasonable levels
6. In 2000, Jordan Joined the WTO and signed the Information Technology Agreement (ITA).
7. Internet connections, cell phones coverage, and ICT services are of high quality with little to no downtime. ADSL user rates are high considering service was launched in 2001.
8. Many Jordanian universities signed educational agreements with reputable universities in the United States and Europe.

Furthermore, some universities have educational centers and labs in cooperation with Intel and Sun Microsystems.

9. Active public-private initiatives are producing results in the short-term such as the tremendous growth in export sales by more than 350%.
10. Jordan has achieved remarkable triumphs in regulatory and legal reforms that have measurably improved Jordan's E-Readiness.

His Majesty shared his vision and aspirations with Jordanians, and called upon Jordanian ICT and computer companies to put their thoughts together in an effort to formulate a national plan aimed at the full development of an information technology sector in Jordan. As a result of this vision the Jordanian ICT sector is moving forward from Factor-Driven Economy toward Investment-Driven Economy.

Jordan's ICT Sector is a dynamic value-added aspect of the economy that plays an important role in driving other major economic sectors. Jordan, as well, has a highly competitive telecommunication infrastructure. Any investor will enjoy a Telecom infrastructure that offers wide range of services such as PSTN, ISDN, ADSL, GSM, GPRS and many other services.

This Sector is also responsible for the direct growth in value-added economic outputs which have considerable effect on the growth of the national economy, such as education, public administration, business service entities and manufacturing industries. In addition to computer software and hardware, Jordan's ICT industry also includes the telecommunications sector.

An educated population is among Jordan's best assets. In comparison to other countries in the region, Jordan has the highest rate of college educated people. Moreover, the proportion of Jordanians who are between 18 and 30 years of age is over 50%. This rate is the highest in the Middle East. Most of the ICT labor forces are specialized in PC Hardware and Programming Languages, but there is a remarkable shortage in E-Commerce and Web Application Designers.

2. Market Trends

The Jordanian IT sector witnessed substantial growth in 2003, with a 30% increase in total revenue reaching almost \$300 million with exports reaching \$74 million- with Arab and Gulf countries taking the lion share of 77%. Investment grew by 17% to almost \$80 million, and most importantly, employment in the ICT sector alone reached more than 10,000 jobs.

Trade between Jordan and the U.S. has witnessed significant improvement during the past five years. While U.S. exports to Jordan, have remained relatively stable, Jordan's exports to the U.S. increased by more than 300% for the same period. The added value of the free trade agreements with the European Union and the Arab also strengthens Jordan's attributes to be a regional location for logistics and manufacturing companies.

The total trade balance between Jordan and the United States of America reached over 1 billion dollars in 2003. It is also worth noting that the United States topped the list of importers of Jordanian goods last year. Exports to the United States grew by 290% to JD145.4 million (\$204.8 million) between January and November 2003, compared with JD37.3 million (\$52.5 million) in 2002, according to the Jordanian Department of Statistics.

Aiming to further develop Jordan-U.S. economic ties, the American Chamber of Commerce in Jordan continues to be committed to the TIJARA coalition that represents 36 public and private sector organizations that are working together for the implementation of the Jordan-US Free Trade Agreement (FTA).

Building on Jordan's strong trade relationship with the US and its historical ties with Iraq, JABA launched the JUST Iraq Program in June 2003. The purpose of this program is to assist Jordanian and American companies in their efforts to contribute to the reconstruction efforts in Iraq by acting as the information clearinghouse for all issues related to trade with Iraq through Jordan, also, benefiting from the fact that Jordanian companies have strong traditional ties with Iraqi companies.

The main Jordanian software development areas are accounting packages, Web-based applications, Arabization, CBT Banking, system integration, health, insurance packages and software conversion from 3rd to 4th generation. These are mainly used in banks, hospitals, hotels, insurance companies, universities, communications and government.

The main regional concentration is directed towards the Gulf market with some outsourced work being done for the US and the global market. Jordan also has a number of US company representatives including IBM, Microsoft, Dell, Compaq, HP, US Robotics and Apple.

There are more than 500 registered companies that provide IT related services including selling of hardware (PC Basics & Accessories) and brand names and/or locally assembled computers, along with software related products and software application development. Jordan has around 80 - 100 value adding IT companies, employing, in addition to 400 - 500 S/W and H/W resellers. Jordan has ten operating ISP's, with another eight scheduled to become operational in the near future. These provide services to about 92,000 local subscribers and 500,000 users (excluding internet café users, which are hard to pinpoint in numbers).

According to the 2003 statistical data from int@j, the total revenue for the ICT sector in Jordan in 2003 was around US 300 million. Jordanian ICT firms' activities, the ICT sector includes the following fields and the underneath graph shows each service sector's revenues:

1. Hardware Sales & Technology Provision (52.67%).
2. Software Development (19.15%).
3. Licensing (15.80%).
4. Communication & Internet (9.46%)
5. IT Consulting (2.92%).

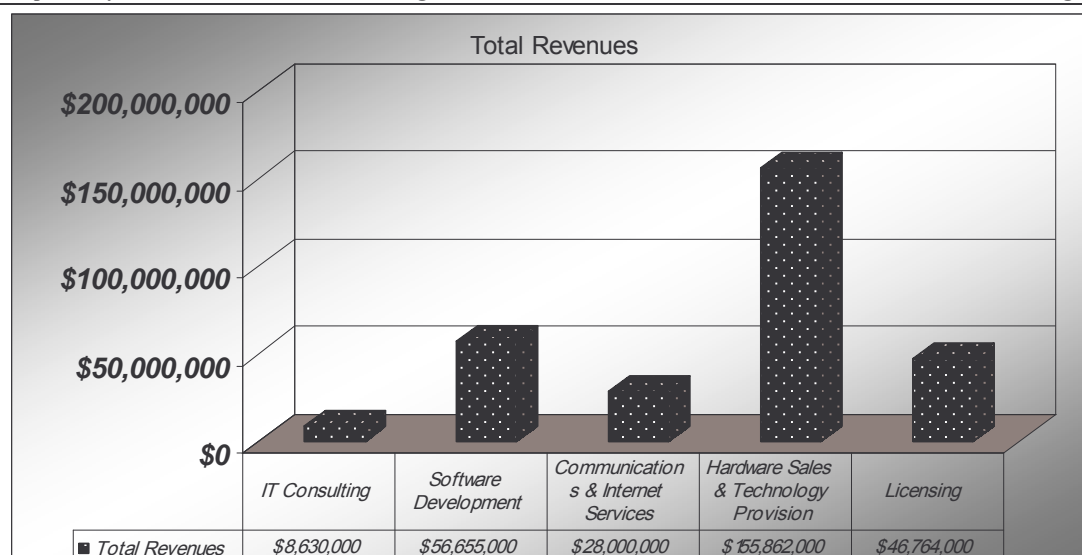


Figure (1): Total IT revenues by service in 2003.

3. Market Size

Based on the published data by the Department of Statistics (DoS) of Jordan, the local market size for ICT equipment was measured. In order to calculate the market size for ICT equipment in Jordan, the following equation was used:

$$\text{Market size} = (\text{Local production} + \text{Imports}) - (\text{Exports} + \text{Re-Exports})$$

According to the previous equation, the market size for the years 2002 and 2003 was measured as shown below:

Items	2002	2003	2004 Expected
Total Imports (US\$)	146,651,860	158,678,095	171,000,000
Local production (US\$)	NA	NA	NA
Total exports (US\$)	20,535,733	4,689,236	5,000,000
Total re-exports (US\$)	27,798,568	34,671,761	43,250,000
Market size (US\$)	98,317,559	119,317,098	122,750,000

It could be seen from the table above that the market size for the ICT's equipment market has been growing to reach US\$ 119,317,098 in 2003 at a growth rate of 52.5% in comparison to US\$ 98,317,559 in 2002. This high growth rate indicates the prosperity of the ICT equipments' market and the bright potential expected for the overall industry in Jordan on the other hand. Meanwhile, it is necessary to reveal that the experts in the industry are credibly confident of the optimistic future for ICT equipments in Jordanian market and they assured that this market will flourish and continue its growth in the next years. According to the experts' opinions, the ICT equipments market will expand by a growth rate that ranges between a low of 30% and a high of 50% over the coming three years.

As a survey conducted by int@j published in August 2004, the total exports from Jordan's ICT sector reached US\$ 69,728,000, with US\$28,059,000 to other Arab countries (40% of total exports). The

sector's export to the gulf countries reached US\$ 26,098,000 (37% of the total exports), US\$ 13,053,000 to the Americas (19% of the total exports), US\$ 2,323,000 to Europe (3% of total exports), US\$ 118,000 to South East Asia (1% of total exports) and US\$ 77,000 to Africa.

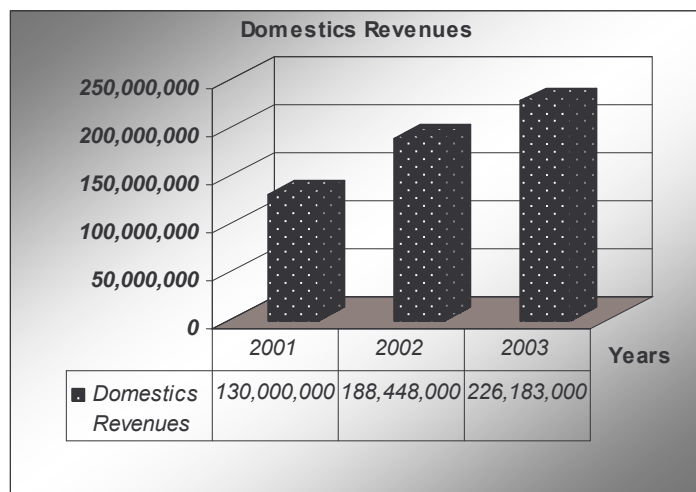


Figure (2) IT domestic revenues (2001-2003).

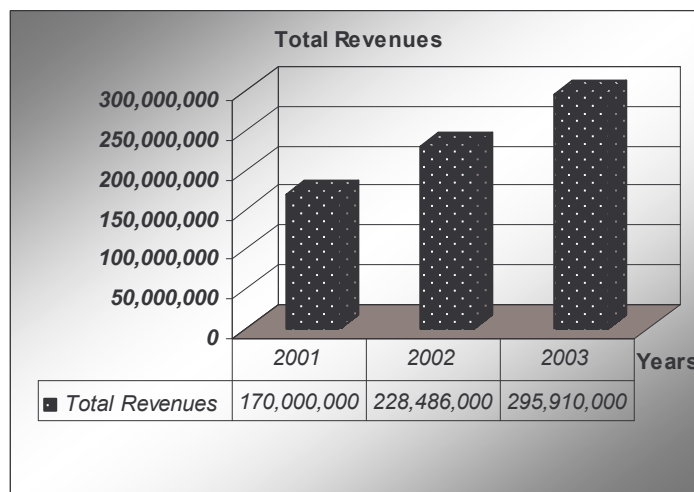


Figure (3) IT total revenues (2001-2003).

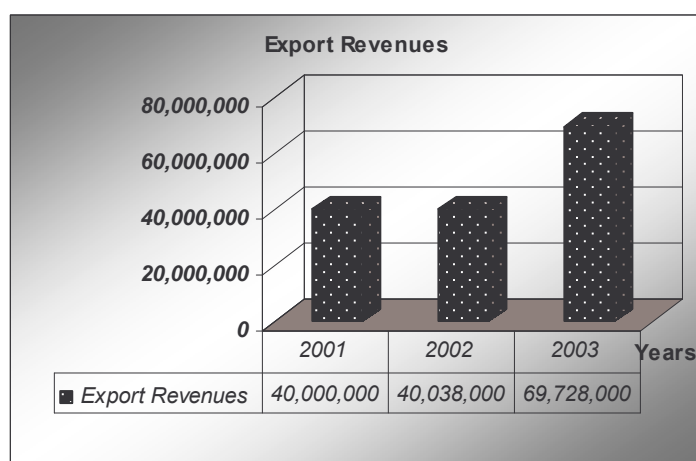


Figure (4) IT exports revenues (2001-2003).

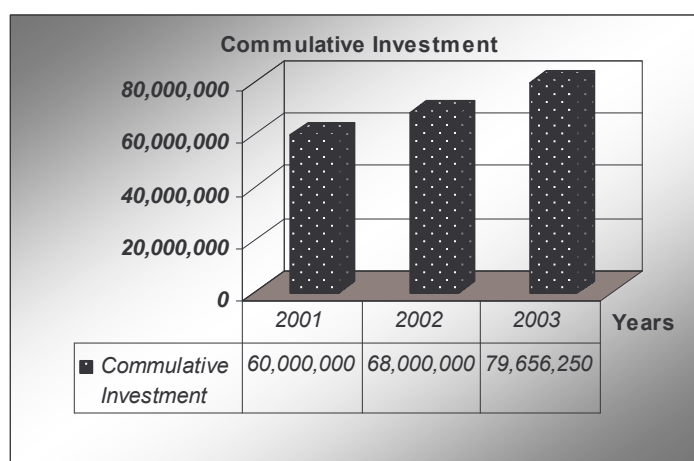


Figure (5) IT cumulative investment (2001-2003).

Although the global technology sector has fallen dramatically in the financial markets over the last period, as shown from the above graphs, the majority of investors in Jordan's burgeoning IT industry are more than satisfied.

Total investments in the Jordanian IT sector (at the end of December 2003) stood at almost \$80 million, an investment figure which has come about as a result of the efforts of int@j and the REACH initiative

Jordanian ICT exports consist mostly of software packages, various systems and applications such as banking systems, as well as hardware devices such as mini-computers. They also include numerous support activities and consultancy services. Nevertheless, there is still a huge gap between the export volume of Jordanian ICT products and that of other countries, in particular UAE.

3.1 Local Production

Jordan boasts 80 - 100 value adding ICT companies, employing approximately 3,000 employees, in addition to 400 - 500 Software and Hardware resellers. The most enriching ICT job opportunities are within the private sector in Jordan. In 122 organizations from the private sector in Amman alone, around 3,000 filled ICT opportunities. A survey conducted by Information Technology Association-Jordan (int@j) found that ICT related employees were divided as follows:

- Technical (50%)
- Marketing & Sales (29%)
- Administration (14%)
- Management (7%)

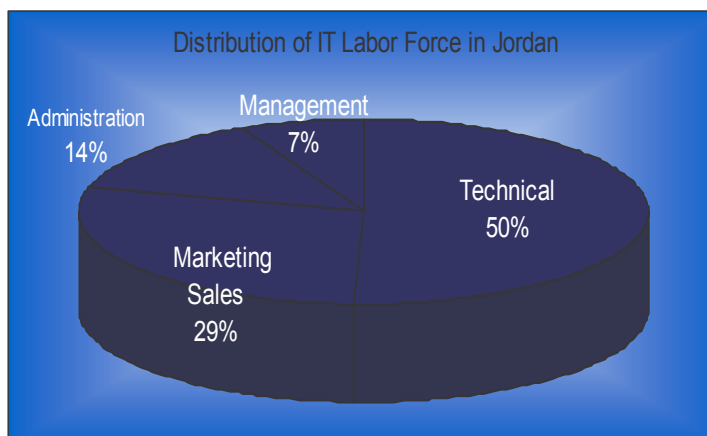


Figure (6) IT labor force (2001-2003).

As a result of His Majesty's vision, the Jordanian ICT sector contributes up to 5.6% in the Gross Domestic Production (GDP). Employment of ICT professionals has increased from 1,250 in 1999 to 10,000 in 2002 to 20,000 in 2003 and expected to reach 30,000 by the end of 2004.

3.5 Ongoing Projects

E-Government

E-Government is a national program initiated by his Majesty King Abdullah II. The purpose of this program is to enhance the performance of the traditional government in terms of service provision, efficiency, accuracy, time and cost effectiveness, transparency, high level of customer satisfaction, cross-Governmental integration, and much more of elements related to the style the Government of Jordan works and perception of others to the Government.

As a continued effort to implement E-Government practices, the Ministry of Information Technology launched the first phase of the International Computer Driving License (ICDL), as part of the E-Government ICT Literacy Training Program. The initiative, valued at JD 2.5 million, aims to train 20,000 government employees from across the Kingdom and make them ICT literate by the year 2005.

E-Learning

The Ministry of Education is leading this effort, which has articulated a national E-learning strategy. The strategy is currently under implementation through the training of teachers, the development of on-

line curricula, and modernization of the learning process to enable innovation and creativity. The role of teachers is being shifted from their role as "sage on the stage" to classroom facilitators or "guide on the side".

On other hand, the Ministry of Education has initiated a project to set up Telecommunication Access Community Centers (TACC) in less developed communities in Jordan. Equipped with trained personnel, these centers will offer its citizens access to computers, Internet, multimedia services and other learning devices. The centers will eventually play a significant role in distance learning.

4. Connecting Jordanian

As part of the Connecting Jordanians Initiative, the NetCorps Jordan program is being launched. NetCorps Jordan will tap into the creativity and energy of youth to serve their community. Jordan's youth are being provided with a blend of technology and business training that enables them to assist communities in incorporating ICT for development.

5. ICT Forums

The ICT Forum is a platform to showcase Jordan's efforts and achievements to place the Kingdom as a major player in the Information revolution. The event highlights investment opportunities in the Jordanian ICT sector for foreign investors, and attracts national, regional and international business and media attention.

6. Market Access

Jordan has significantly leapt forward with respect to modernizing its legal framework to adapt to the rapidly changing E-environment. An electronic transactions act was enacted before the end of 2001. The law addresses issues such as electronic signatures, electronic payment, privacy issues, cyber crimes, and the use of electronic documents as admissible evidence in the courts of law. A bundle of other E-laws are also being drafted and proposed.

New Amendments to the Investment Promotion Law were in effect in the year 2001. These amendments provided the IT public and private sectors in Jordan with all the benefits and incentives under the existing Investment Promotion Law. Foreign investors can own up to 100% of any IT-related investment in Jordan.

ICT equipments that are imported into Jordan are subject to the testing and certification requirements developed by Jordan Institute for Standards and Metrology (JISM). Presently, JISM is implementing Daman program with a slogan of safety and quality in one. This program aims at ensuring that products imported into Jordanian market are in compliance with the Jordanian, International, and European accepted standards for safety and quality. Bureau of Veritas (BV) has been awarded a contract to implement the program on behalf of JISM. A simplified overview of the verification of conformity process could be described as below:

- An importer or exporter can lodge an Inspection Order (IO) at BV office.
- If in Amman by importer, the Amman office notifies the responsible BV overseas office and sends copies of the document. If IO is

lodged by the exporter, the overseas BV office notifies the Amman office.

- The overseas office contacts the exporter and requests the required quality conformity documents.
- Once all conformity documents are received and satisfactory, the BV office provides an invoice to the exporter of the fees and requests a convenient time to perform a physical inspection. The fees are paid by the exporter to the overseas BV office.
- Once the fees are received and an appointment set to inspect the goods, a BV inspector physically inspects the goods and prepares a report.
- If the overseas office is satisfied with the documents and inspection, it prepares a draft certificate of conformity and sends it electronically to the Amman office. If lab testing is being done, the overseas offices must receive the test results before they are able to finalize the certificate.
- The local importer contacts the Amman office and receives the original certificate of conformity which is required to clear the goods through customs.

7. End Users

The end users for ICT equipment in Jordan can be classified into the following groups:

- Industrial users.
- Governmental customers.
- Banks.
- Financial institutions.
- Educational institutions.
- Hospitals.
- Tourism companies.

Data on the consumption rates was difficult to obtain in the local market. However, from the field experts' point of view, business customers represented by Banks where they use wide variety of automation services such as ATMs, Credit Cards, Internet banking, etc.

Governmental institutions and their employees represent the golden end users of ICT products and services among other groups who have to be targeted by US exporters whom are planning to approach Jordanian ICT equipments market.

Large companies, on the other hand, have been upgrading their systems, as well as to keep up with the increasing competition and to better serve their customers.

8. Third Country Imports

The demand for ICT equipments in Jordanian market is totally satisfied by imports since there is currently no local production of these products in the market. ICT equipments imported into Jordan come from several destinations such as China, Germany, U.S.A, U.K, Japan, and Taiwan...etc. Through the analysis of Jordan's imports data produced by DoS during the time period from 2001 to 2003, it is clearly revealed that China has the lion share of the imports of ICT equipments in 2003 with a share of 16.75% of the total imports. Germany and U.S.A ranked second and third

with 12.82% and 11.16%, respectively market shares of overall imported ICT equipments, followed by Japan 8.76% and Taiwan 8.16%.

9. U.S. Market Position

U.S. companies enjoy an outstanding reputation worldwide and are known for their high quality performance, durability, and reliability. The analysis of Jordanian imports market of ICT equipments showed that U.S.A products gained the third place among other suppliers with a market share of 11.16% of the total imports in 2003. The main U.S. companies in the Jordanian ICT market are: Microsoft, IBM, HP, Dell, and many others.

10. Financing

Financial transactions between the local distributors and foreign suppliers of ICT equipments are handled through bank transactions. Letter of Credit (L/C) is one of the most common financial instruments preferred by local ICT equipments distributors. The suppliers, in normal situation, offer Jordanian distributors a financial credit term that allow them to settle their accounts from 30 days to 60 days following the date of invoice.

11. Trade Shows

There are many trade shows conducted every year in Jordan. One of the most important trade shows in ICT sector is The Middle East Technology Show (METS) which is organized by Jordan Computer Society (JCS); invites Business leaders and investors from the US, Jordan, the Middle East, and other countries to attend this event which is held in October from every year.

12. Key Contacts

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