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# GOING ONLINE? THE CASE OF AN E-PHARMACY IN JORDAN

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## Abstract

*The use of ICTs by developing countries is seen as a way in which these countries can achieve their development objectives. E-Commerce is seen to provide firms in developing countries, especially SMEs, with potential benefits. However, realizing such benefits is subject to overcoming obstacles that can face some organizations venturing into online business. This paper investigates the case of a pharmacy in Jordan that has started an online business, was successful at first but then was forced to fail. The case of this pharmacy is analyzed through the theoretical lens of a framework (COME) that takes into consideration the stages of e-Commerce adoption and the factors that influence this process.*

Keywords: e-Commerce, Developing Countries, Jordan, ICTs, e-Pharmacy.

## Introduction

In recent years, a number of international organizations, development agencies, non-governmental organizations (NGOs), and academics started advocating the use of Information Communication Technologies (ICTs) as a means by which not only economic growth could be achieved, but also other problems related to development, such as illiteracy, poverty and inequality, could be tackled (for example, UNESCO, 1999; UNDP, 2001, Mansell and Wehn, 1998). Consequently, a number of developing countries started working with ICT-related initiatives. ICTs are seen to provide a means for development in two primary ways: the first is by directly contributing to growth; and the second is by providing access to knowledge, which it is argued, contribute to achieving development objectives (UNDP, 2001). The importance of e-Commerce to developing countries is linked to the expectations of benefits offered by ICTs to these countries (Mansell, 2001).

Jordan is a country that has been working with ICT for development initiatives since the succession of King Abdullah II to the throne in 1999. These initiatives aim to achieve economic growth by building an export oriented software industry and to provide widespread access to ICTs within the Kingdom. The advancement of e-Commerce falls within this promise of benefiting from ICTs so that Jordan can ultimately be transformed into a 'knowledge-based economy'. E-Commerce is seen as an engine of economic growth with the potential to help organizations, especially small and medium enterprises (SMEs), that will have better opportunities to sell their products.<sup>1</sup>

This paper investigates the case of a pharmacy in Jordan whose owner decided to 'go online'. The new e-pharmacy was encouraged yet, at the same time, faced many obstacles that have eventually led the online part of the business to be stopped. This case will be analyzed to discuss the factors that have led to the success of the pharmacy at first and then to its failure. The COME (Contextual, Organizational, Managerial and E-commerce factors) framework proposed by Molla et al (2006) will be used as the theoretical lens through which the case will be analyzed.

The focus of the paper is twofold, the first is to discuss how the pharmacy went into doing business online (the stages it went through) and the second is to examine what caused it to fail (the various factors that have contributed to its success and then failure ) as an online business.

This paper follows the case study approach as it presents and analyses the case of a pharmacy that went into selling products online. We look at how this pharmacy adopted e-Commerce and why in the end this adoptions failed. The case study approach, it is argued, is the suitable approach if the questions being answered are how and why questions (Orlikowski and Baroudi, 1991). The case study can be classified as an 'interpretive case study', the purpose of which is not to tell the 'truth', but, to tell a story, which consists of the researcher's thoughts and ideas concerning the phenomenon in question (Walsham, 2001).

Data sources for case studies may come from a number of sources such as documents, archival records, interviews, and participant observation (Yin, 2003). However, interviews can be seen as the primary source for interpretive case studies (Walsham, 1995). Semi-structured interviews were conducted with the owner of the pharmacy, his lawyer, representatives from the Jordanian Federal Drug Association (JFDA) and the Pharmacists Union in order to follow the principle of triangulation, which involves collecting data from distinct sources (Walsham, 1993) to get the various views on the case. Examples of such questions that were asked to all interviewees are: The 'story' of the e-pharmacy and why was it stopped from selling online? Is there a law against selling a pharmacy's products online? Is there a law against delivering medications to the customer? And What are the challenges facing e-Commerce in Jordan?

Interviews took place in February / March 2007. In each interview, one or two of the researchers were present and notes were taken, which were immediately discussed and summarized afterwards. Relevant documents were also collected, for example case documents from the lawyer and relevant newspaper clippings. In some cases, there was some follow up on the phone and through e-mails when needed.

One of the constraints associated with case studies is the difficulty in generalizing the results when using this methodology. Nonetheless, Walsham (1995) argues that there are four types of generalization from interpretive case studies, the development of concepts, the generation of theory, the drawing of specific implications and the contribution of rich insights. Given that developing countries are not a homogenous group, generalization of cases as a whole is difficult. However, reflecting on the above points by Walsham, it could be argued that generalization in our case may be in drawing implications and contribution of insights that could be useful for other developing countries, sectors, or firms venturing into e-Commerce.

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<sup>1</sup> [http://www.jordanusfta.com/documents/joint\\_statement\\_on\\_e-Commerce.pdf](http://www.jordanusfta.com/documents/joint_statement_on_e-Commerce.pdf)

The structure of the paper is as follows: the next section will briefly discuss some issues related to e-Commerce in developing countries and presents the theoretical framework used in analyzing the case. Then the paper moves on to present the case study within the context of Jordan. The section after will analyze the case study within the proposed framework. Some implications that can be deduced from the case will then be presented. Finally is the conclusion of the paper that.

## E-Commerce in developing countries

E-Commerce is defined as the use of electronic methods, means and procedures to conduct various forms of business over the internet (Brian, 1999 quoted in Cohen and Kalirrori, 2006). E-Commerce provides the potential for firms to venture into new markets and to be innovative in reaching their customers as well as providing a competitive edge for firms that were successful in implementing e-Commerce. For SMEs, e-Commerce can be particularly useful as it may represent such firms with opportunities that were not possible in the past (Cloete and Courtney, 2002).

It is argued that benefits of e-Commerce for businesses are many but so are obstacles. Benefits include reduction of communication expenses, generating revenues, reduced costs, more flexible working practices, enhanced customer relationships and enhanced competitiveness, extended business reach, improved information exchange with customers/suppliers, and access to international markets (Cohen and Kalirrori, 2006; Cloete and Courtney, 2002). Impediments to e-Commerce are physical, technological, institutional and socio-economical ones (Molla and Licker, 2005). In developing countries in particular there are many issues that need to be considered more carefully when a business decides to go online. For example, there are issues of access to technology and the digital divides that exist within and between countries, trust in doing business online, and dealing with non-cash payments (Mansell, 2001, Molla and Licker, 2005).

It is argued that the benefits of e-Commerce for SMEs are confined to developed countries (Duncombe and Molla, 2005), which implies that SMEs in developing countries still have to realize the benefits that are associated with e-Commerce. In Jordan, 98.7% of enterprises are SMEs, which makes this type of enterprises a dynamic sector that can benefit from the opportunities and benefits that are argued to be offered by e-Commerce. However, before realizing such benefits, obstacles to e-Commerce need to be overcome so new opportunities for businesses can be provided (Mansell, 2001).

Generally speaking, a number of factors are argued to help in providing the enabling environment for e-Commerce such as infrastructure, diffusion of ICTs and economic incentives and social goals that are established by governments working in cooperation with other stakeholders (Mansell, 2001). More specifically, there are factors that are identified which include: owner's characteristics (or management), organizational issues, contextual factors, and e-Commerce issues (Molla et al, 2006; Cloete and Courtney, 2002).

In the medical profession in general, various websites are available to offer medical information. These vary from seeking medical advice from an internet doctor, to ordering and buying medication from an internet pharmacy, or reading medical information (Okechukwu, 2005). E-pharmacies are websites that sell prescription medicines and other products online (Bessell et al., 2004). In the United States and Europe, a number of such websites can be found where prescription medications and other products are sold online (e.g Boots.com). Protecting customers in the case of e-pharmacies is a complex issue that is being questioned as strategies are needed to improve the quality of e-pharmacies (Bessell et al, 2004). Concerns regarding online pharmacies are normally about prescribed drugs and harmful products which need medical advice and how to deal with such issues if the medications are being sold over the internet, given that millions of pills are prescribed online each year (Eysenbach, 2001).

The case study of this paper is of an online pharmacy. The theoretical lens that will be used to analyze the case study is the COME model that was developed by Molla et al (2006). This model takes into consideration the various stages of e-Commerce development and a number of factors that could influence the adoption of e-Commerce. In each stage, the various factors could either help the adoption of e-Commerce by the enterprise or lead to its stagnation and even abandonment. The factors put forward are divided into four categories:

- Contextual factors: any factors which lay outside the boundaries of the focal enterprise.
- Organizational factors: which relate to the resources, processes, and structure of the focal enterprise.
- Managerial factors: given the key role played by entrepreneurial owner-managers in small enterprise.

- E-commerce-specific factors: which relate to the nature of the application and its impact.

This model was seen useful as it takes into consideration the factors that could influence the adoption of e-Commerce with the possibility of having different factors affecting each stage of adoption. Figure 1 below represents this model.

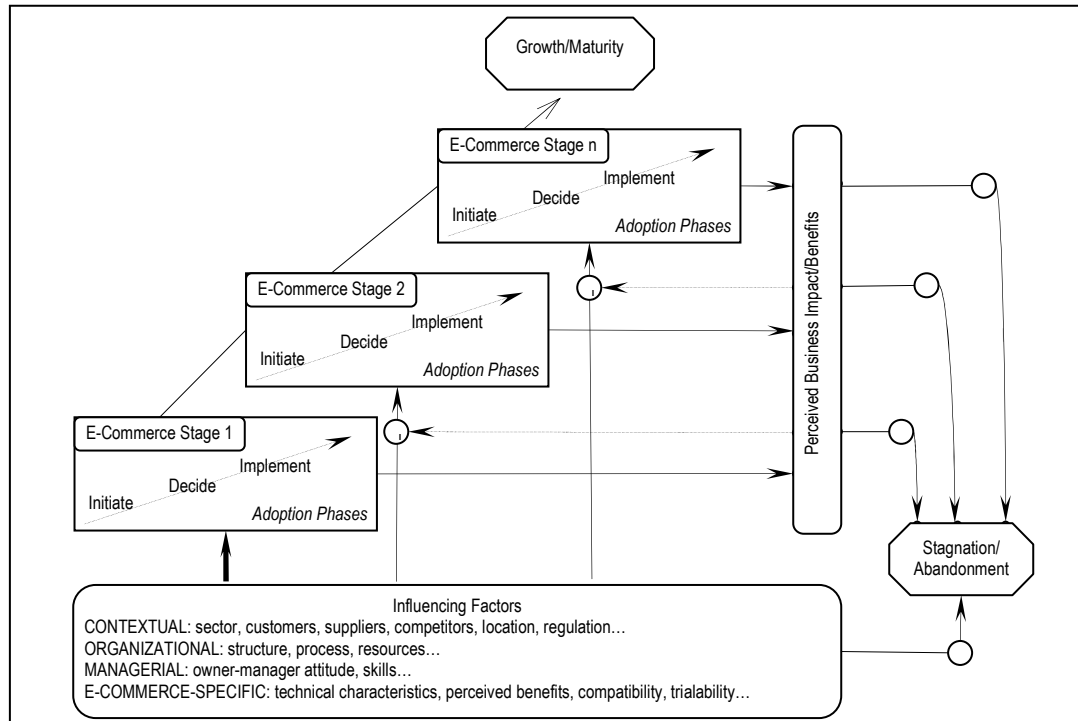


Figure 1: COME framework for e-commerce adoption (Molla et al, 2006)

## Case Study: Adnan-Pharma.com

### Case background

Jordan is a small country that is poor in natural resources and rich with human resources as Jordanians have moved towards education to compensate for their countries lack of resources. Since he came to power in 1999, King Abdullah II has started to promote the idea that ICTs can be used in Jordan as a means of development (King Abdullah II, 2000), given that implementing such initiatives and ultimately being transformed into a knowledge-based economy is primarily based on having educated human resources. This was also motivated by the success of other countries that share some similarities with Jordan (such as Ireland and Singapore). As a result, a number of ICT-led development initiatives were launched in the country such as REACH (Regulatory framework, Enabling environment, Advancement of IT programs, Capital and finance, Human resources development), which aims to build an export-oriented software industry, e-government and Knowledge Stations which are technology access centers that were established in remote areas around the Kingdom. E-Commerce is an area that has also received attention where a US-Jordan joint statement on e-Commerce was issued in which a number of fundamental principles and policies were established to boost e-Commerce.

There are a number of Jordanian firms that have been doing business online. Banks in particular have been working online in Jordan for a number of years (for example, Arab Bank). Moreover, the website ([www.ecommerce-project.jo](http://www.ecommerce-project.jo)) is one that is funded by the Higher Council of Science and Technology to study the readiness of applying e-Commerce in Jordan. This is done according to the available infrastructure, from a legal perspective and to develop an electronic Web Site including an awareness course (e-consulting), which is supposed to give information about issues related to e-Commerce in Jordan.

From the outset, the e-Pharmacy is placed within a context that is conducive to using ICTs in any activity, coupled with the support of the leadership to innovation in this area. The electronic pharmacy (AdnanPharma.com) was established in Jordan by its owner in 2004 within the encouraging context of using ICTs for development in Jordan. Batelco Jordan developed the website for the pharmacy, which was the first e-Pharmacy in the Middle East. However, later on, the e-Pharmacy was banned from doing business online. In this section, the development stages of the e-Pharmacy will be briefly presented and the factors that have led to the success and failure later on of the e-Pharmacy will be discussed guided by the COME framework. This analysis is summarized in Figure 2, which shows the stages and the main influencing factors within each stage.

### ***Case discussion***

The development and decline of the e-Pharmacy went through a number of stages which are presented below:

#### **Stage 1: Establishing web presence September 2004**

At this initial stage, the owner started with the idea of doing business online encouraged by the overall direction towards using ICTs in Jordan. Before starting the e-Pharmacy, all the necessary licenses were obtained from the various agencies that include Ministry of Health, Amman Chamber of Commerce, the Union, and Jordan Food and Drug Administration without any problems. He also signed an agreement with a local company to develop the e-Commerce application. However, the developing company did not deliver and the owner lost the amount that was paid. This has led the owner to sign another agreement with Batelco Jordan which developed and implemented the system. In addition, online payments were arranged with local banks. Moreover, special vans were obtained to transport the medications to conform to the safety regulation required when transforming some drugs. In short, the necessary requirements were established to start the online business.

#### **Stage 2: Online selling of products December 2004**

The e-Pharmacy website (Adnanpharma.com) was launched and the pharmacy started selling products online. These included prescription drugs, cosmetics, baby food, and other products available at the pharmacy. In addition, the pharmacy offered services such as selling prescribed medicines, cosmetics, online delivery of gifts, and a reminder service for its customers via sending e-mails and SMS. As a result of online trading, sales increased and the pharmacy was attracting customers. In an encouraging development, the e-Pharmacy received King Abdullah II award for innovation in 2005 as a pioneering effort in Jordan in the use of ICTs.

#### **Stage 3: Difficulties stage early 2005**

A few months after starting the business, the e-Pharmacy started facing difficulties which were in the form of lawsuits. These were mainly based on one law which states that the pharmacist should not seek to attract customers and should not deliver medications to customers in any way. The lawyer who is representing the pharmacist was interviewed and stated that the e-Pharmacy did not violate any laws especially that all the necessary licenses were obtained beforehand. The owner and his lawyer contend that some of these complaints were placed to harm the owner by competitors who were

adversely affected from this new form of competition. They add that some of these competitors were influential people who managed to exercise pressure in some ways to stop the e-Pharmacy from doing business.

#### **Stage 4: banning stage late 2005**

As a result of the lawsuit and the complaints against Mr. Adnan, the pharmacy was banned from doing online business and is back to selling products the traditional way. The controversy here is that there is no direct law that bans or allows pharmacies from doing business online. Currently, the owner is still facing all kinds of problems, was on a food strike to protest and he is still trying to go back to opening his online pharmacy where his lawyers are advocating his case. It is worth mentioning that a representative of JFDA was interviewed but he did not comment on this case directly. Rather, general comments were given regarding the need for regulations. As far as this case is concerned, he just mentioned that Mr. Adnan is facing many difficulties and that we should 'forget about e-Commerce for pharmacies and focus on other sectors'. Meanwhile, the case is still hanging and the online business is stopped until further notice.

#### **Factors:**

According to the theoretical framework, there are four factors that can act either as drivers or inhibitors within the various adoption stages. Following is a discussion of these factors as can be concluded from the case analysis.

*Contextual factors:* External factors in the case were very strong both as drivers and as inhibitors. The direction towards using ICTs for development in Jordan, the initiatives that are taking place in a number of areas and the award the owner received were drivers that helped at the beginning. However, once the e-Pharmacy started operating other contextual factors acted as inhibitors, which were mainly regulations and competition. As far as regulations are concerned, a law does not exist that bans online selling of drugs nor does one exist that allows it. This implies that the whole issue of online selling of drugs is not regulated. The other issue that was pointed out during interviews is competition. When the pharmacy started operating, its market share increased and competitors who have influence were adversely affected and therefore started fighting back. As a result, these factors were stronger than the owner and forced him to stop doing business online in spite of the high level encouragement he received at the beginning.

*Organizational Factors:* The small size of the firm, the fact that it is owned and managed by a single person implies that it is easier to manage resources. Financial resources were available from the owner and a loan was obtained from a local bank. On the other hand, the small size could make the firm more exposed to external influences. In the case of Adnan Pharmacy, the influence of contextual factors have been more significant because of the small size of the firm especially that the other competitors seem to have considerable influence.

*Managerial factors:* Given that the pharmacy is owned by one person, the owner's enthusiasm was what has started this project in the first place. For example, he faced problems during the development of the e-Commerce application at the beginning with the company that was building the application but he still continued and signed a new contract with another development company, which then implemented the system. This determination can also be seen in the fact that even after being stopped from selling online, he is still fighting and advocating his case. Furthermore, he received the award for his personal efforts in establishing the pharmacy as the first online e-Pharmacy in the Middle East. Therefore, managerial factors are in favor as drivers in this case.

*E-Commerce specific factors:* Perceived benefits of e-Commerce were mainly behind the decision to go online. It was seen that delivering medicines online will provide a service to customers as medicines will be delivered 24/7 anywhere in the Kingdom, provide a competitive advantage for the pharmacy, and is compatible with overall trend of encouraging the use of ICTs in Jordan.

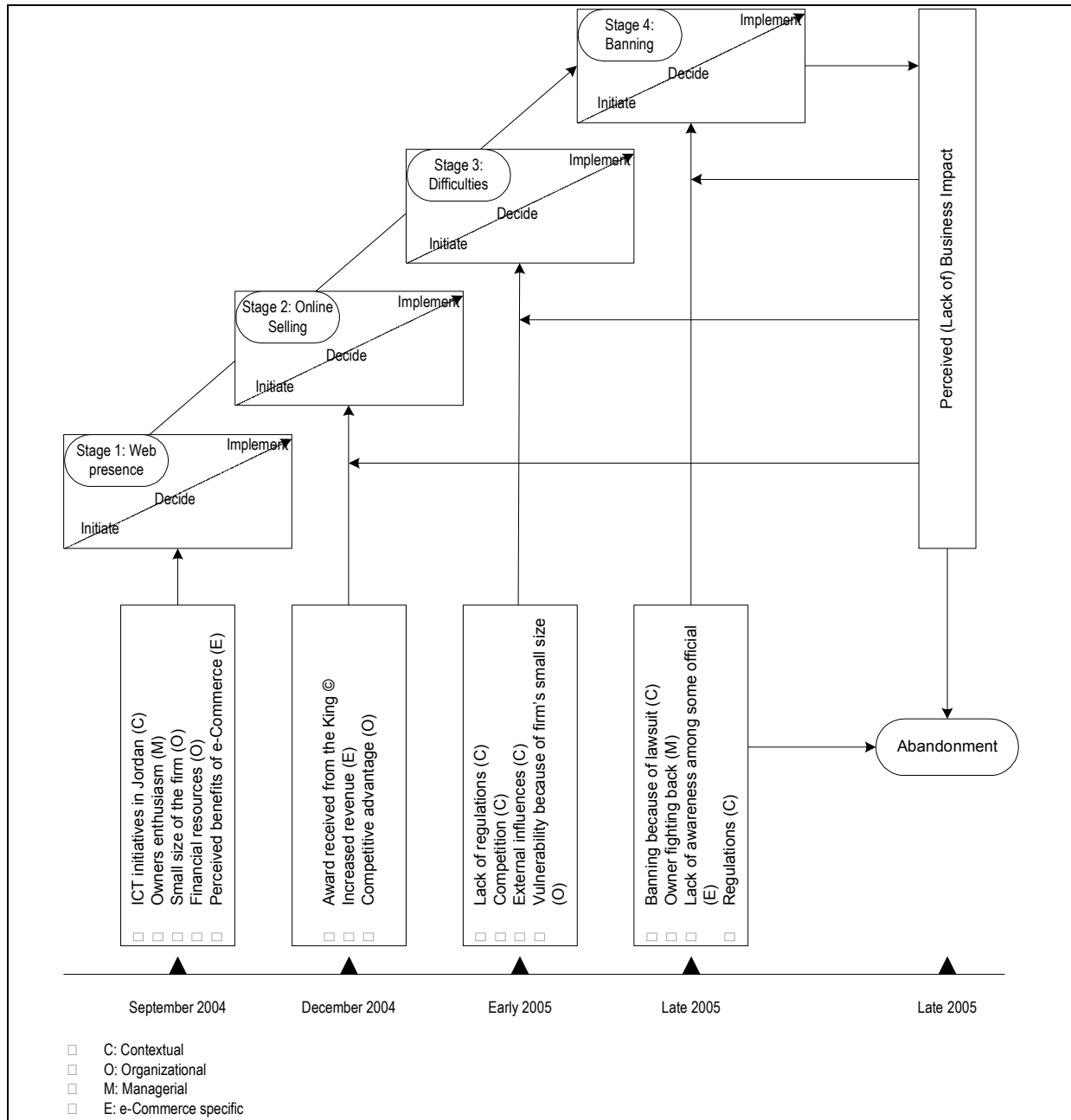


Figure 2: Stages and factors in the case of e-Pharmacy

## Implications

For developing countries, the processes of using ICTs for development are complex and still require further analysis. E-Commerce is one area that is seen to contribute to development by providing a number of benefits that could eventually lead to growth. However, obstacles can prevent these benefits from being realized. These obstacles can differ from one



country to another, one sector to another, one industry to another, and among firms. However, a number of issues can be pointed out from the case study of this paper.

To begin with, the state in Jordan has been influential in providing the necessary environment to enable the use of ICTs for development by launching and supporting a number of initiatives within the government and the private sector (Al-Jaghoub and Westrup, 2003). However, in certain sectors major steps are still needed to develop this use of ICTs and to enable these businesses to operate.

One of the major contextual factors that have been an obstacle that have stopped the e-Pharmacy is the law. It is worth noting that a number of laws were changed in Jordan to provide the necessary environment for other initiatives (for example, the REACH initiative) (REACH, 2004). It is granted that selling medications online needs to be regulated because of the potential harms that could be caused by misusing medications. However, this does not imply that having e-pharmacies should be banned especially that many e-pharmacies are operating in the States and Europe but under certain regulations. In the case of Jordan the law does not allow or prohibit pharmacies from selling online due to the fact that in the past there were no cases where such law was urgent. But this case shows having regulations that deal directly with e-pharmacies are needed. In the past laws that were needed were developed in cooperation between the private sector and the government (for example, see REACH (2004)) and this case should not be an exception.

The other point that could be raised here is that each sector and each industry has its own requirements. For example, there are websites in some Arab countries where DVDs are sold online and delivered at cheap prices because these DVDs are copies although this is prohibited by the copyright law. In other cases, online business may be done without the need for further laws such as selling books online, which is done in Jordan. In short, each sector has to be looked at taking into consideration its own needs and the government can learn from other countries which may have faced similar situations to benefit from their experiences.

As mentioned earlier, the King has had the high level vision of using ICTs for development as a means to transform the country into a knowledge-based economy. However, this vision is not always transformed into reality. The e-Pharmacy received an award from the King as an entrepreneurial effort but later on the same pharmacy was banned from doing business online because it was considered to be violating a law. This shows the need for coupling the vision with actual policies that should be a catalyst for innovation and for actually benefiting from ICTs in development. One way of achieving this coordination is by building institutions that are responsible for this coordination. The Ministry of ICT was established in 2002 to institutionalize the ICT related efforts but the case above shows that there is still a gap between high level vision and the actual reality. This shows the need for more coordination between the various agencies involved to avoid such problems from happening.

Generally speaking, there seems to be lack of awareness about e-Commerce related issues. For example, one official mentioned that 'how can an online pharmacy be linked to a brick and mortar one', he said that the pharmacy 'should be all virtual'. This shows a lack of knowledge among some officials which could hinder the efforts to encourage e-Commerce. Being mostly SMEs, Jordanian firms still need resources, maturity and awareness to be able to achieve the potential benefits of e-Commerce. Going back to our factor-based model, it can be seen that these factors may differ from case to another. For some sectors contextual factors may be in favor of e-Commerce but lack of resources and other organizational factors may not be especially that the majority of firms are SMEs. E-Commerce related factors may also be an impediment where the perceived benefits and trust in e-Commerce requires awareness. Success stories are often used as a way to encourage e-Commerce especially among SMEs. In the case of Adnan Pharmacy, the success it had at the beginning would have been encouraging for other firms and for other entrepreneurs but the problems faced later may have a negative effect.

## **Conclusions**

Using ICTs in developing countries is still being given significant attention by many agencies. Experience of some countries such as Jordan shows that this is a complex process that requires coordination between a number of agencies to provide the enabling environment for such initiatives to be beneficial. Jordan has taken a number of steps in many areas to facilitate the use of ICTs but there is still more to be done. Literature on using ICTs for development sometimes tend to

generalize and to oversimplify the requirements for such efforts to be successful. The use of case studies has its limitations as a methodology but it is a useful way to provide lessons that could be applicable in other cases (Walsham, 1995).

Our case study shows that all factors should be linked together for a success story to emerge. Although managerial, organizational, e-Commerce and some contextual factors were in favor, lack of regulations as a contextual factor has led to the discontinuity of the e-Pharmacy. This experience shows that having a high level vision within a country is not enough to achieve the promised benefits.

Lessons learnt from the insights and implications can be valuable for policy makers in developing countries and are worth being taken into consideration when planning to and implementing ICT led development initiatives. This paper is a contribution along these lines, where we tried to present and analyze a case study the lessons from which could be useful for policy makers, firms and other countries. Further research in developing countries is needed to see each country's requirements to benefit from ICTs to development, always keeping in mind the complexities and paradoxes that could be faced.

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