PhD Thesis

The Impact of Privacy Regulations on the Development of Electronic Commerce: Jordan and the UK Comparative Study

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Abstract

Improvement in information communication technology (ICT) is one of the factors behind growth in economic productivity. A major dimension of this is the use of the Internet in e-commerce, allowing companies to collect, store, and exchange personal information obtained from visitors to their websites. Electronic commerce has many different variants, and is believed by many governments throughout the world to be the engine of economic stability in the future.

While electronic commerce has many benefits, there is evidence to suggest privacy concerns are an inhibitor to its adoption in Jordan and the UK. According to Campbell (1997, p.45), privacy in this context can be defined as "the ability of individuals to determine the nature and extent of information about them which is being communicated to others".

The importance of information in e-commerce has increased, because the main success factor for the completion of transactions between businesses and consumers is the companies' ability to access consumers' personal details. This conflicts with the consumers' fear of providing personal information to un-trusted parties, which makes them disinterested in entering contracts via the internet.

This research discusses privacy concerns as an inhibitor for electronic commerce by providing a comparison between UK and Jordanian regulations, to establish the impact that these regulations have ameliorating privacy concerns regarding the development of electronic commerce in Jordan and the UK. The interpretive grounded theory approach has allowed the researcher to gain a deep understanding about privacy perceptions of electronic commerce held by the main stakeholders: government, businesses and consumers. Furthermore, through implementing the Straussian grounded theory approach as a data collection and analysis method, two grounded theories have emerged as giving deeper understanding of the situation

in Jordan and the UK regarding privacy concerns and how this affects electronic commerce development in both countries.

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Abbreviations

Abbreviation	Meaning
ACC	Amman Chamber of Commerce
APEC	Asia Pacific Economic Cooperation
B2B	Business to Business transactions
B2C	Business to Consumer transactions
B2G	Business to Government transactions
C2B	Consumer to Business transactions
C2B2C	Consumer to Business to Consumer
C2C	Consumer to Consumer
CA	Certificate Authority
CAQDAS	Computer Assisted Qualitative Data Analysis Software
CWW	Consumer Web Watch
DPA	Data Protection Act
EC	Electronic Commerce
ECHR	European Curt for Human Rights
EDI	Electronic Data Interchange
EEA	European Economic Area
EFT	Electronic Fund Transfer
EG	Electronic Government
EIU	Economist Intelligence Unit
ENP	European Neighbourhood Policy
EPIC	Electronic Privacy Information Centre
E-ready	Electronic Readiness
ETA	Electronic Transaction Act
EU	European Union
FBI	Federal Bureau of Investigation
FIA	Freedom of Information Act
FTA	Free Trade Agreement
G2B	Government to Business
G2C	Government to Citizen Transactions
G2G	Government to Government Transaction
GNI	Gross National Income
GT	Grounded Theory
HRA	Human Rights Act
ICCPR	International Covenant on Civil and Political Rights
ICO	Information Commissioner's Office-UK
ICT	Information and Communications Technology
IMRG	Interactive Media in Retail Group
IS	Information Systems
ISPs	Internet Service Providers
IT	Information Technology
JHCST	Jordan's Higher Council for Science and Technology
MLEC	UNCITRAL Model Law on Electronic Commerce
MLES	UNCITRAL Model Law on Electronic Signature
MoICT	Ministry of Communications and Information Technology
NCC	National Consumer Council
NCHR	National Centre Act for Human Rights

NGOs	Non-Governmental Organisations
NSEC	National Strategy for Electronic Commerce
OECD	Organisation for Economic Co-operation and Development
OEEC	Organization for European Economic Co-operation
OFAC	US Treasury Office of Foreign Assets Control
PC	Personal Computer
PM	Prime Minister
RSS	Royal Scientific Society
SMEs	Small and Medium Enterprises
SWIFT	Society for Worldwide Interbank Financial Telecommunication
UAE	United Arab Emirates
UDHR	Universal Declaration of Human Rights
UK	United Kingdom
UNCITRAL	United Nations Committee on International Trade Law
UNCTAD	United Nations Conference on Trade and Development
UNRWA	United Nations Relief and Works Agency for Palestine Refugees
US	United States
USA	United States of America
USAID	United States Agency for International Development
VAT	Value Added Tax
WOF	Word of Mouth
WTO	World Trade Organisation

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Dedication

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1   Introduction

Improvement in information communication technology (ICT) is one of the factors that can cause the acceleration of economic productivity and growth. For example, the Internet helps companies to engage in electronic commerce (EC) by collecting, storing, and exchanging personal information obtained from visitors to their websites (Boritz et al. 2008). This engagement is in conflict with certain issues that are of concern to consumers. One of these problems, attributed to the rapid expansion in electronic communications over recent years, is privacy. Fears about privacy prevent consumers from providing their personal data to un-trusted parties (Stratford and Stratford 1998).

In response to consumers' concerns, the attention paid by e-commerce companies to privacy issues has increased and they have tried to find a balance between their advantage and consumers' concerns (Boritz et al. 2008). In addition, countries and international commissions, such as the United Nations Committee on International Trade Law (UNCITRAL), World Trade Organisation (WTO), and the Organisation for Economic Co-operation and Development (OECD) have tried to find techniques that can give consumers the safety they need.

National and international efforts have concentrated on assuring the place of EC at the global level, but at the same time the need to enact appropriate regulations is addressed. The gap between developed and developing countries concerning the legal environment needs to be bridged in order to enhance EC globally. Therefore, developing countries should consider capturing the experience of developed countries in the EC field and implement their recommendations at a national level. With regard to Jordan, it was the first US trading partner to sign a joint statement on EC with the US under a Free Trade

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Agreement (USA-Jordan 2000). This agreement states the necessity for Jordan to enact appropriate regulations to encourage its internal EC activities. Having presented the background, the next section will address the motivations that guided the author to investigate this area of research.

1.1 Motivation and Contribution

This topic has been chosen for investigation based on the following reasons:

1. Clinton and Saini (2008) reviewed 46 articles on this issue published in the period 1989 to 2007. They found that some of the published articles discussed privacy concerns on e-commerce from the legal perspective (Bloom et al. 1994; Bowie and Jamal 2006; Culnan and Bies 2003; Hoffman et al. 1999; Jones et al. 2004b; Milberg et al. 1995; Nowak and Phelps 1997; Rust et al. 2002; Taylor et al. 1995). For example, they found that Nowak and Phelps (1997) argue that firms should be aware of the existing regulations on privacy, particularly those more related to the processing of the consumer's personal information. Additionally, Clinton and Saini found that Bloom et al. (1994) stressed that firms should be prepared in their knowledge of regulations and strategies so that they are able to comply with the rules prior to setting up their online services. However, all of those who studied privacy from the legal side have taken the company's perspective rather than the consumer's perspective.

Furthermore, most of the published work that examines privacy is limited to a single perspective only: the consumer viewpoint (Tang et al. 2008), the company viewpoint (Ashrafi and Kuilboer 2005; Kobsa 2001), or the government point of view (Culnan 2000). This shows the original contribution

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of a research study that can discuss privacy concerns from the point of view of the three main stakeholders.

2. Moreover, Boritz and colleagues (2008) investigated articles published in a variety of journals in the area of consumer privacy, particularly in the period from 1995 to 2006. They examined only those articles discussing privacy issues in the field of EC. On this basis, they produced a research framework covering all possible interactions between the perspectives of the three main stakeholders: consumer, company and government. Only one article out of 88 studies discussed the privacy issue from all three perspectives; this was Culnan and Bies (2003), who discuss the concerns of consumers regarding their personal information, and suggest this should be taken into consideration by companies through self regulation that protects consumers' privacy and complies with the regulations enacted by the government.

3. Other studies have established the concern of consumers regarding their personal information and its impact on their willingness to purchase online (Tsai et al. 2007). They found that individuals are more willing to make deals with merchants who provide a medium or high level of protection than with others who provide a low level of protection. However, this study shows that privacy is one of the essential factors that influence EC implementation. Ashrafi and Kuilboer (2002) stress the need to unify international privacy laws to comply with all businesses' duty to protect consumers' privacy. Birnhack (2008) reviewed some of the national and regional regulations related to privacy issues and concluded that most of the regulations reviewed were influenced by the EU Data Protection Directive 1995, which could help to

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unify privacy regulations at a global level (Birnhack 2008). In line with this conclusion, Green (2011) revealed that the USA government had studied the affect the implementation of the EU Directive would have on trade between the USA and the EU. This led to the completion of the US/EU Safe Harbour Framework Agreement of 2000. The agreement aimed to protect adequately the privacy of EU citizens when they transfer their personal information to businesses in the United States. The foregoing examples give an indication of the need to enact privacy regulations at the national level to facilitate EC implementation, and that those regulations should not conflict with existing regulations at an international level.

4. Information and Communication Technologies (ICT), in particular electronic commerce in the developing countries - Third World - needs more work because ICT application is still in the early stages (Aldhmour and Shannak 2009). The term "Third World" is used to describe the developing countries of Africa, Asia and Latin America and will be discussed in more detailed in section 4.2. However, Jiang and Ji (2009) provide a theoretical model to discuss the consumer's privacy concerns and behavioural intentions that influence the uptake of EC in developing countries. They conclude that cultural and institutional factors such as regulatory policies and laws must be taken into consideration in order to protect the consumer's online privacy and encourage him to provide his personal information online.

5. The Hashemite Kingdom of Jordan signed a Free Trade Agreement (FTA) with the United States of America in 2000 and has been a member of the World Trade Organisation (WTO) since 2000. The WTO as an organization

and the FTA agreed with the USA in both requiring Jordan to enact regulations that facilitate the implementation of EC. Most of the research conducted on Jordan examines the factors that influence EC internally, but no one has been able to present a real solution to the drawbacks they identify (Abu-Samaha and Samad 2007; Ajmian 2009; Al-Omari and AL-Omari 2006; Al-Omari 2006; Alsmadi et al. 2009; Nsour 2003; Shannak and Al-Debei 2005). These authors have established the lack of regulations that regulate EC activities in Jordan and the need for enacting appropriate regulations to fill this gap.

6. Based on the criteria mentioned in 4.2, this research is going to compare Jordan, as a developing country, with the UK, as a developed country, in regards to electronic commerce implementation and how the privacy issue, emphasising the privacy regulations at national and international level, affects EC activities in each country. Cross cultural studies make contributions for theory development (Brislin 1976). For example, according to scholars "people of different cultural origin are likely to have different attitudes and styles of decision making [...] because value systems differed" (Yi and Park 2003, p.36). Besides, from a business perspective, Luo et al. (2001) indicated that a cross cultural study helped them to have the ability to understand the international and multinational business markets.

7. Finally, at least to the researcher's knowledge, no study has been conducted in EC, particularly on privacy issues, that applies grounded theory as a research methodology and makes comparisons between developed and developing countries. This methodology has enabled the researcher to study privacy

concerns through the interactions between consumer, company and government perspectives.

1.2 Research question

The main research question is to investigate the impact of privacy regulations on the development of EC. In order to answer this question, the following sub-questions will be considered:

1. Does privacy constitute an obstacle to EC development in Jordan and the UK?

2. How do previous studies in both Jordan and the UK describe additional obstacles and how do they interrelate with privacy concerns?

3. How does the legal environment in Jordan and the UK enhance privacy protection?

4. How does the current literature reflect the perceptions of EC stakeholders, such as, consumers, businesses and governmental agencies in Jordan and the UK?

1.3 Thesis structure

This thesis is structured through nine chapters. This introductory chapter has addressed the motivations for studying this subject. It has furthermore addressed the scope of this research by referring to the lack of prior research conducted in Jordan regarding privacy regulations. The chapter finishes by establishing the research questions that will be investigated in the study.

The second chapter considers EC: its definition, benefits and barriers. The chapter discusses the difference between e-business and e-commerce. Additionally, in this chapter, privacy is revealed as one of the main factors that influence the implementation of EC, regardless as to whether it is within developed or developing countries, and finishes by presenting the relationship between EC activities and privacy issues as inhibitors for online transactions in general, and EC development in particular.

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Chapter three starts by returning to the roots of privacy and the theories that try to define it. The relationship between privacy and personal information is explored. This chapter finishes by addressing some examples that constitute a threat to individuals' privacy and, as a consequence, invade their right to privacy and leads to preventing them purchasing online.

Chapter four provides an historical review about electronic commerce implementation in Jordan as a developing country, and the UK as a developed country. Besides this, it provides detailed information about the factors that influence electronic commerce activities in each country, emphasising the impact of privacy issues on the consumers' willingness to purchase online. This chapter finishes by discussing the legal environment in both countries and its role in regulating information privacy matters.

Chapter five addresses the research methods and methodologies that have been applied in this research. It sets out to review the existing research paradigms in information systems (IS), research methods and data collection methods. It provides further justification for the research method and methodology that were applied in this research.

Chapter six discusses in depth grounded theory through discussing the differences between the versions of grounded theory presented by its two originators, Glaser and Strauss. Justification is provided for choosing the Straussian approach as a data collection and analysis tool. The chapter then goes on to explain how the Straussian procedure was applied in the Jordanian and UK contexts, and a summary of the categories that have emerged from each analytical process in each context is given at the end of the chapter.

Chapter seven discusses the findings that emerged from the Jordanian and UK contexts in more detail. The first section discusses the categories that emerged from the Jordanian context and the interrelationships between concepts and categories. This section finishes by determining the core category from the Jordanian context and its relationship with the issue of privacy. The same structure is applied in the second section, concerning the UK context.

Chapter eight provides a critical discussion of the two theories that emerged from the two national contexts. The discussion links the emerging theories with the literature review. It addresses the differences between the Jordanian and UK situation concerning privacy issues.

Chapter nine presents answers to the proposed research questions in the current research. In addition, this chapter addresses the contributions to knowledge that have been provided by this research. The recommendations, evaluation, limitations of the research and suggestions for future studies that develop from its findings are the final headings concluding this chapter.

2   Electronic Commerce

2.1   Introduction

The main aim of this chapter is to discuss the factors that prevent countries achieving the benefits of using EC by considering whether privacy constitutes one of EC's implementation hurdles; this covers the first research sub-question determined in this research. However, the main issues discussed in this chapter are: EC definition, the various forms it takes, and EC benefits and barriers.

Talking about electronic commerce became meaningful consequent to the arrival of two new technologies in the second half of the 20th century, namely: Electronic Data Interchange (EDI) in the late 1960s (Deshmukh 2006, p.88), and Electronic Fund Transfer (EFT), also in the late 1960s (Panurach 1996). The revolution of the internet was completed by 1995 when it became possible to use it for commercial purposes (Leiner et al. 1997). The growth of the internet and information technologies has enabled businesses to streamline their activities and enhance the business process (Peng et al. 2010; Tsiakis and Sthephanides 2005).

According to Zuccato (2007) using the internet helps businesses to advertise and sell their products; this changes the way that business is performed (Peng et al. 2010), and helps businesses to expand their spread (Murphy and Tocher 2011). On the one side, EC is one example of using information and communication technologies (ICTs) to enhance economic growth (Datta 2009; Fathian et al. 2008). In relation to this, for example, Jordan, see sub-sections 2.5.1 and 4.2.1, and the USA, in signing their Free Trade Agreement in 2000, were convinced that EC would be the engine of economic growth in the 21st century (USA-Jordan 2000). On the other side, the engagement in EC activities gives an indicator that consumers is waive certain rights to data privacy,

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because they reveale some types of personal information considered more important to them and they are not encouraged to reveal this to anyone else. Therefore, a balance between the conflicts of interest is required to encourage both businesses and consumers to accept online dealing. However, the following section will uncover how the previous literature defines EC and which is more related to the current research

2.2 Electronic commerce definition

There is no generally accepted definition of e-commerce (Stare 2003) and there is no agreement about what constitutes electronic commerce (Peng et al. 2010). However, scholars have tried to put forward an acceptable definition of EC. Piris and colleagues (2004, p.490; Shim et al. 2000, p.1) argue that many scholars agree that EC is "about business activities electronically conducted."

This definition is narrow, both because it does not mention what kind of activities are conducted and because "electronically" is a broad concept, leading Stare (2003) to propose both a narrow and a broad definition of the term. The narrow definition gives electronic commerce as "internet based transactions" (Stare 2003, p.28) and the latter defines it as "any transaction over any electronic medium in a computer mediated network" (Stare 2003, p.29). Others explain both definitions by saying that EC refers to practical commercial actions, the selling and buying of products, services and information, conducted through electronic communications such as the internet and demands a financial operation (Kartiwi and MacGregor 2007).

However, bringing together these different definitions, e-commerce could be defined as any action including goods or services that requires the sharing of business information, maintaining relationships and conducting business transactions by means of

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telecommunication networks (Pride and Ferrell 2009; Todd 2005; Tsiakis and Sthephanides 2005). Under this definition, e-commerce:

- Should be conducted electronically using internet communications.

- Requires sharing of personal information.

- Requires financial operations tools, and

- Is used for selling and buying goods and services.

The above definitions all agree on the importance of Information and Communications Technology (ICT) on the completion of e-commerce transactions, but none of them, except the last one, consider the importance of personal information to the completion of online transactions. This guides the researcher to adopt the last definition of EC for this research, because the scope of this research circulates around personal information and its importance in completing online transactions. However, there are several new phenomena that are used to describe the online transaction: for example, EC, EG and E-business. Therefore, it is helpful to differentiate between these terms and justifies why EC is the type of ICT used in this current research; all these issues will be discussed below.

2.3   E-commerce contrasted with E-business

Reflection on electronic business should be accompanied by consideration of its subset, electronic commerce. While some use these terms interchangeably (Jones et al. 2004a; Teo and Liu 2007) this is wrong, because Grefen (2010) declares that e-commerce is a subset of electronic business, which leads him to define e-business as:

> Conducting inter-organisational core business activities in dynamic collaborations; such that these are enabled by the integrated use of information technology for both communication and processing of information (Grefen 2010, p.3).

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More specifically, according to a 2000 House of Lords' report, e-business is the whole process of enabling companies to trade electronically and to integrate those processes into their commercial operation (House of Lords 2000), while e-commerce more specifically refers to the financial transaction process. E-business can thus denote the tools that facilitate the operation of e-commerce and, furthermore, is said to be changing to include in its meaning models for conducting contracts (Jiepei et al. 2010; Teo and Liu 2007). It uses information communication technologies (ICT) in support of all business activities. These tools are information flow, such as information security; capital flow, such as types of payments; logistics, such as timely and safe delivery; and business flow, such as quality and price (Rabinovich et al. 2007). However, after defining EC and differentiating it from E-business, the following section will uncover which type of EC will be the scope of this current research.

2.4 Electronic commerce types

Electronic commerce has many types and this research aims to investigate the privacy issue from three perspectives: those of government, businesses and consumers. However, this section, firstly, is going to discuss the divergent types of EC, and then determines which ones this research is going to focus on.

Grefen (2010) argues that the use of the internet for "commercial activities" has been allowed since the mid-1990s, and Dell, Cisco and Amazon were the first commercial parties to exploit the advantages of the internet in their businesses. Since that time, numerous types of e-commerce have appeared. E-commerce could be classified in many possible ways, but the most common classification is to distinguish types of e-commerce according to either the nature of the transactions or the nature of the participants in a transaction (Li 2007, p.16). E-commerce can thus be classified into:

- Business to Business transactions (B2B) which include EDI (Electronic Data Interchange) operations between business organisations (Dave 2002; Li 2007). Within this category, there are numerous transactions. For example, many transactions may be included in car manufacture, including the supply of tyres, glass for windows, and paint to finish the product. (Li 2007).

- There is also Business to Consumer transaction (B2C), which include operations between organisations and consumers. As Siqing et al. (2010) note, it is associated with selling and buying goods or services to consumers through online channels. This kind of e-commerce is narrower than the B2B concept, because the consumer simply buys the car, as in the previous example, through one transaction. (Li 2007).

- Additionally, there also exists Consumer to Business transaction C2B (Dave 2002). Feng Li (2007) states that this type is a sub-category of the B2C e-commerce, where the consumer offers the product to an organisation or company and is paid for this. An example about this type is "expedia.co.uk".

- In addition, Consumer to Consumer (C2C) transaction is another kind where consumers sell to other consumers through a third party (Dave 2002). For example, the consumer might put his car up for auction through a mediator site; Li (2007) mentions that "eBay" is an example of this type. However, this latter site should really be classified as C2B2C because the organisation in the middle that facilitates this transaction is running as a business.

- Moreover, governments might be a party in e-commerce, for example, G2B a Government to Business transaction (Li 2007; Plant 2000). This kind enables businesses to carry out transactions with a government entity (Li 2007), which

itself seeks to work more effectively with businesses. Paying taxes is an example of this type of business.

- Also, there are Government to Citizen Transactions (G2C), which are online non-commercial transactions; the aim here is purely to facilitate the services that a government offers to its citizens (Grefen 2010; Li 2007) and to give greater citizen interaction with the government. This kind of e-business can be observed in the e-voting service and paying taxes.

- Besides this, the government might be a contractor in Business to Government transactions (B2G). In this variant, companies offer their services to the government via integrated communication techniques (Grefen 2010).

- Finally, the Government to Government Transaction (G2G) is another kind of e-commerce. This type enables government agencies to work together more easily (Li 2007). The table below summarises these types of e-business.

2	**Consumer**	**Business**	**Government**
Consumer	C2C	C2B	C2G
Business	B2C	B2B	B2G
Government	G2C	G2B	G2G

Table 2-1: E-Business Types.
Source (Dave 2002).

This research aims to investigate privacy issues and their impact on the development of electronic commerce activities. Thus it is particularly concerned with B2C, one of the three major EC categories (Laudon and Laudon 2009), where consumers are required to provide their personal information to complete the transaction. Furthermore, it is concerned with investigating B2C rather than G2C, because in EG the government is responsible by law for providing access to information and services to eligible individuals; by contrast, companies are allowed to choose their consumers (Carter and Belanger 2004). They note that the reverse also holds: while in EG, the government

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obliges the applicant to complete his application online, in EC the consumer has the right to choose between different suppliers.

Finally, the following section will discuss the added value of implementing EC activities for the consumers, businesses and society, which justifies why most of the businesses in developed countries have broadly adopted technologies such as these in their activities. In addition it will discuss the factors that influence EC implementation in both developed and developing countries, and why most developing countries struggle to adopt such technologies.

2.5 Electronic commerce - benefits and barriers

Electronic commerce has many benefits and barriers. Over time, the benefits of e-commerce develop and increase considerably. On the other side, its several barriers are likely to be overcome with time. The two following sub-sections will concentrate on the benefits and barriers that are encountered in EC implementation and success.

2.5.1 E-commerce benefits

EC has many potential benefits; see 4.2.1 and 4.2.2 for further information about EC in Jordan and the UK. First of all, EC gives businesses the ability to reduce their external and internal communication expenses, such as fax transmission, paper-based transactions and administrative tasks (Kim et al. 2001; Maloff 1996; Piris et al. 2004), as well as reducing storage costs (Lederer et al. 1996) and thus energy expenditure (Shu-hsien et al. 2011).

Also, according to Maloff (1996), businesses can gain tangible benefits from using EC, such as saving on the demand for office space and equipment costs (Piris et al. 2004). Furthermore, e-commerce might improve employee morale and improve relations with consumers by increasing trust and reliability (Currie 2000; Piris et al. 2004). In addition,

it will expand the volume of concluded contracts (Piris et al. 2004) and the ability to specialize in current items in response to the consumer's demands, which changes the way the products are customised (Stare 2003).

Furthermore, EC reduces the time-lapse between a query and receiving the price of a product or service (Siqing et al. 2010). Additionally, e-commerce gives the businesses numerous advantages through increasing workers' productivity and knowledge, which reduces their training costs (Piris et al. 2004).

Moreover, the Policy Development and Co-ordination in the EU Report issued by the House of Lords (House of Lords 2000), mentioned that e-commerce has an obvious impact on transaction costs, which are known as the costs of doing business, such as negotiating with suppliers, arranging deliveries to consumers and marketing products. This makes it cheaper than carrying out transactions face to face with the consumer (Piris et al. 2004).

Electronic commerce has led to improved consumer satisfaction (Piris et al. 2004; Siqing et al. 2010) and increases the competition between organizations which reduce the product's costs (Jiepei et al. 2010; Peng et al. 2010; Shu-hsien et al. 2011; Siqing et al. 2010), giving the consumer the ability to choose between more options and to choose those at lower prices (Piris et al. 2004; Siqing et al. 2010). Moreover, EC provides the consumer with a quick delivery service (Shu-hsien et al. 2011) and the ability to participate in live auctions (Institute for International Economics 2000). Furthermore, it gives the consumer a motivation for increasing his/her knowledge of how to use the computer and internet (Kuzic et al. 2002).

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Information and Communication Technologies (ICTs), and EC specifically, reduce the amount of pollution (Fuchs 2008), because they reduce the number of consumers who need to leave home to go shopping and thus reduce road congestion and pollution. Furthermore, e-commerce gives the opportunity for a much greater range of socio-economic groups to purchase items, due to the low prices it can offer (Piris et al. 2004). Finally, in e-commerce there are no geographical limits between the vendor and the buyer, so any person anywhere can buy any item he needs (Malecki 2009; Piris et al. 2004), which supports the international attitude to the developments of the globalisation era (Jiepei et al. 2010). Table 2-2, below, summarises the benefits of using EC.

Benefit	Source
Reduces external and internal communication expenses	(Kim et al. 2001; Maloff 1996; Piris et al. 2004)
Reduces storage costs, saving energy	(Lederer et al. 1996; Shu-hsien et al. 2011)
Reduces the demand for office space and equipment costs	(Maloff 1996; Piris et al. 2004)
Improves employee morale, and relations with consumers	(Currie 2000; Piris et al. 2004)
Expands the size of concluded contracts	(Piris et al. 2004)
The ability to specialize in current items according to consumers' demands	(Piris et al. 2004; Stare 2003)
Reduces the time lapse in communicating price to consumers	(Siqing et al. 2010)
Increases the productivity and knowledge of workers which reduces training costs	(Piris et al. 2004)
Reduces transaction costs	(House of Lords 2000; Piris et al. 2004)
Increases consumer satisfaction	(Piris et al. 2004; Siqing et al. 2010)
Gives the consumer the ability to choose between more options with lower prices	(Jiepei et al. 2010; Piris et al. 2004; Shu-hsien et al. 2011; Siqing et al. 2010)
Provides the consumer with a quick delivery service	(Institute for International Economics 2000; Shu-hsien et al. 2011)

Table 2-2: Electronic Commerce Benefits.

At the same time as there are vast benefits for businesses and consumers from electronic commerce, there are factors influencing electronic commerce implementation in all developed and developing countries. These factors will be discussed in the next sub-section.

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2.5.2 E-commerce barriers

There are several barriers which confront the implementation of electronic commerce; see 4.2.1 and 4.2.2 for further information about EC inhibitors in Jordan and the UK. Companies need to pay additional costs for the requisite equipment and software (Industry Canada 2006). Also, EC necessitates keeping in touch with software and programs which are changing rapidly (Tofara et al. 2008). Additionally, e-commerce has high implementation costs (Kartiwi and MacGregor 2007).

Further infrastructure capabilities influence EC implementation (Datta 2009; Hawk 2004; Qureshi and Davis 2006; Ramanathan 2011). Furthermore, the internet has a low penetration rate with particular groups and classes of society, because internet access requires expensive equipment (Kapurubandara and Lawson 2008; Kshetri 2007; Lu 2005). In this regard, this low penetration could be said to create a "digital divide" between social classes and leaves billions unconnected (Datta 2009; UNCTAD 2000; USA-Jordan 2000) and unable to purchase online. Therefore, countries that have a higher level of privatization in the ICT sector are more able to adopt EC, due to competition between the internet service providers (Hilbert 2001).

Moreover, Datta (2009) stresses that any organisation that wants to successfully adopt electronic commerce should be "e-ready". The Centre for International Development at Harvard University defines an e-ready society as

> one that has physical infrastructure (high bandwidth, reliability, and affordable process); integrated current ICTs throughout businesses (e-commerce, local ICT sector), communities (local content, many organisations online, ICTs used in everyday life, ICTs taught in schools), and the government (e-government); strong telecommunications competition; independent regulation with a commitment to universal access and no limits on trade foreign investment (Fathian et al. 2008, P.581).

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Further, the attitude of consumers and organizations towards electronic commerce is another factor facing the implementation of EC. With regard to the consumers, their attitude affects the degree of trust they can invest in EC, where, in contrast with their normal purchasing habits, they are unable to touch the product (Siqing et al. 2010; Stansfield and Grant 2003; Warrington et al. 2000), and they prefer not to deal with a faceless seller (Dengke et al. 2010; Martin and Camarero 2008; Murphy and Tocher 2011; Tofara et al. 2008), which engenders a lack of interpersonal trust in the company (Kshetri 2007; Tsiakis and Sthephanides 2005).

Additionally, according to Kim et al (2001) the lack of trust accompanies the expansion in the internet, as is obvious from the fact that the number of internet fraud cases increased by 33% in 2008 (Dengke et al. 2010). Another recent study conducted by Consumer Web Watch mentioned that 29% of internet users have reduced their online purchasing because of their concerns about identity theft (CWW 2005; Jiang and Ji 2009). Chai and Pavlou (2002) find that trust influences consumer attitudes across cultures because, for example, phishing and malware attacks have no borders (Peng et al. 2010). This lack of trust from the consumer side leaves the internet at some distance from achieving its full potential (Palvia 2009) and, makes trust an essential factor for online transactions (Teo and Liu 2007).

Furthermore, consumers' outlook is influenced by privacy and security concerns - see sub-section 3.3.1 to observe that privacy and security are two different phenomena (Tofara et al. 2008; Tsiakis and Sthephanides 2005) - because the consumer is required to give personal data, see sections 2.6, 3.4 and 3.5, which raises financial security concerns (Datta 2009), so they become cautious about giving their personal information.

However this concern about privacy differs from individual to individual, see sub-sections 7.2.1.1 and 7.3.1.1, according to age, gender, education and experience in surfing the internet (Jiang and Ji 2009; Murphy and Tocher 2011; Stansfield and Grant 2003). For example, Murphy and Tocher (2011) argue that men are more at ease with purchasing online than women.

This means that payment tools such as credit cards, are not known and accessible to every consumer due both to consumer attitudes (Kapurubandara and Lawson 2008), see section 8.3, and to the lack of legislation; see section 8.2, that regulates electronic commerce matters. For example, a higher level of concern about privacy was found in the more moderate regulatory environments (Milberg et al. 1995), which implies the need for privacy protection regulation (Rust et al. 2002).

Furthermore, consumers' outlook is influenced by the belief that e-commerce activities are not presented within a balanced arena that encourages consumers to conduct online transactions, while the consumer may be looking for a balanced arena (Tofara et al. 2008).

Electronic commerce can exert its influence, see 7.2 and 7.3, through the lack of knowledge, skills, confidence, website browsing experience and inadequate consumer awareness of EC (Kapurubandara and Lawson 2008; Kartiwi and MacGregor 2007; Khatibi et al. 2003; Kshetri 2007; Ramanathan 2011). For example, Head and Hassanein (2002) found that the awareness of half of their respondents regarding seals of approval was still low. This lack of knowledge affects the willingness of individuals to provide sensitive personal information online (Khatibi et al. 2003; Kim et al. 2001),

due to their low prior experience in using computers which influences their willingness to use the new technology applications (Teo and Liu 2007).

Above and beyond such consumer issues, the lack of awareness inside companies, for example see sub-section 7.2.2.1, might influence EC, because they do not perceive the advantages of using e-commerce (Fathian et al. 2008; Khatibi et al. 2003). Furthermore, a lack of IT skills in employees shapes another obstacle for the implementation of e-commerce (Kartiwi and MacGregor 2007; Stansfield and Grant 2003).

In addition, there is no standard language used on e-commerce websites; see sub-sections 4.2.1 and 7.2.1.1, which presents an obstacle for the consumer in using all global websites (Kapurubandara and Lawson 2008). For example, only 1% of non-English speakers in Slovenia were found to use the internet (Kshetri 2007).

The aforementioned barriers can be seen, obviously, in the developing countries, for example, see sub-section 4.2.1 and section 7.2. For instance, Kapurubandara and Lawson (2008) declare that the main barriers influencing the EC in developing countries, such as Egypt, are market size, education and e-commerce infrastructure - where, for example, the internet bandwidth is low (Kshetri 2007) - financial infrastructure, the legal system, the government's role, the pricing structure, and social and psychological factors.

Moreover, a lack of purchasing power, particularly in societies suffering from famine and poverty, influences e-commerce activities in the developing countries (Datta 2009; Kshetri 2007). Another reason for the lack of purchasing power is the unavailability of credit cards (Hilbert 2001; Kshetri 2007). Also, some developing countries treat EC

products as luxury items and impose import duty, surtax, Value Added Tax (VAT) and sales tax (Kshetri 2007) on them.

Kshetri (2007) adds that the low growth of EC in developing countries is due to insufficient general laws and regulations[1] related to concerns about privacy; there are few or no business laws for electronic commerce, such as privacy laws; and internet purchasing taxation concerns. Furthermore, electronic commerce is a borderless activity and there are no agreed international regulations, so this could raise jurisdiction issues and create conflict in laws such as with regard to taxation issues (Teltscher 2002). However, the table below summarises barriers that influence electronic commerce implementation.

Barrier	source
High implementation costs	(Industry Canada 2006; Kapurubandara and Lawson 2008; Kartiwi and MacGregor 2007; Kshetri 2007; Lu 2005; Tofara et al. 2008)
Lack of IT skilled employees	(Kartiwi and MacGregor 2007; Stansfield and Grant 2003)
Internet penetration	(Datta 2009; Hawk 2004; Kapurubandara and Lawson 2008; Kshetri 2007; Ramanathan 2011; UNCTAD 2000; USA-Jordan 2000)
Infrastructure	(Datta 2009; Fathian et al. 2008; Hawk 2004; Kapurubandara and Lawson 2008; Qureshi and Davis 2006; Ramanathan 2011)
Privatisation	(Hilbert 2001)
Payment tools	(Kapurubandara and Lawson 2008)
Legal factors	(Kapurubandara and Lawson 2008; Kshetri 2007; Teltscher 2002)
Consumers' attitudes and level of trust	(Dengke et al. 2010; Kshetri 2007; Martin and Camarero 2008; Murphy and Tocher 2011; Siqing et al. 2010; Stansfield and Grant 2003; Tofara et al. 2008; Tsiakis and Sthephanides 2005; Warrington et al. 2000)
Privacy concerns and security	(CWW 2005; Datta 2009; Dengke et al. 2010; Jiang and Ji 2009; Khatibi et al. 2003; Kim et al. 2001; Milberg et al. 1995; Murphy and Tocher 2011; Palvia 2009; Rust et al. 2002; Teo and Liu 2007; Tofara et al. 2008; Tsiakis and Sthephanides 2005)
Gender and educational level	(Jiang and Ji 2009; Kapurubandara and Lawson 2008; Murphy and Tocher 2011; Stansfield and Grant 2003)
Lack of knowledge, confidence, experience, lack of awareness on the part of consumers and companies	(Fathian et al. 2008; Head and Hassanein 2002; Kapurubandara and Lawson 2008; Kartiwi and MacGregor 2007; Khatibi et al. 2003; Kim et al. 2001; Kshetri 2007;

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[1] United Arab Emirates (UAE) is one of the developing countries, and it was the first Arab country that enacted the data protection act in 2007. Birnhack, M. (2008).

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	Ramanathan 2011; Tan and Teo 2000)
Language	(Kapurubandara and Lawson 2008; Kshetri 2007)
Purchasing ability	(Datta 2009; Kapurubandara and Lawson 2008; Kshetri 2007)

Table 2-3: Electronic Commerce Barriers.

Based on the above, various barriers are revealed from the literature review which affect EC implementation in both developed and developing countries. Moreover, privacy considerations are one of the significant factors that influence online activities in both developed and developing countries see sections 2.6, 3.4 and 3.5. This is attributed to the universal nature of the internet in the globalisation era, where there are no borders or regulated restrictions (Wu et al. 2012). This leads Wu and others (2012) to stress that companies try to publish their privacy policy on their websites to increase trust among consumers to deal with them online, because consumers must have a feeling of trust about providing their personal information online (Milne and Boza 2000; Schoenbachler and Gordon 2002). This feeling inside consumers about providing their personal information will be increased if they are satisfied that their personal information is protected and will not be misused (Hinde 1998). This is consistent with the UN Universal Declaration of Human Rights (UDHR), as will be discussed in 3.2, which recognises privacy as a human right which has to be protected by all national and international regulations.

Therefore, for EC development, the concentration of companies and policy makers should be on the core hurdle not the secondary ones, and privacy concerns remain the essential factor for EC development. This is shown by a survey conducted by the American Electronic Commerce Centre in which 90% of individuals feel that privacy is the most pressing concern when shopping online, and 79% of respondents leave the website when required to provide personal details to complete the transaction (EPIC

2000). Therefore, concentrating on solving privacy issues mean solving most of the other EC barriers. This is because privacy as a human right means that all national and international, public and private sectors, must respect this right and fulfil all requirements to protect this right from invasion. This requires governments and businesses to fulfil these requirements which make individuals more willing and trusting to provide their personal information online. However, the next section will give more explanation of the relationship between EC and privacy as a core issue that needs hard work from governments and businesses to develop E-activities in general and EC in particular.

2.6   E-commerce and privacy

As mentioned in 2.2, e-commerce is defined as any commercial action that requires sharing of information by means of telecommunication networks for completion of a transaction. This means that to complete an online transaction the consumer needs to provide his/her personal information through the internet, such as name, address and bank account details; for more details see 3.4. Thus, if he/she is concerned about personal information and lacks confidence about providing it online, the online transaction cannot be completed.

Furthermore, EC has divergent types, as clarified in table 2-1, and based on the above definition the buyer has to provide his personal information to complete the online transaction. As described in table 2-1, the buyer could be government, business or consumer and all of them, to complete a transaction, have to provide personal information. When the buyer is a government or a firm then there are no privacy concerns that arise because these parties have enough experience to deal online. When the buyer is an individual, however, it means that privacy concerns are problematic

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because not all individuals have the same experience of dealing with the internet, which justifies why B2C and not other types of EC will be studied in this research.

While there are benefits that an individual can get from communicating through the internet (see sub-section 2.5.1) he/she is increasingly concerned about privacy protection (see sub-section 2.5.2), (Dengke et al. 2010; Murphy and Tocher 2011; O'Connor 2005; Pride and Ferrell 2009; Tofara et al. 2008). Concerning that, Tracy Mullin, president of the American National Retail Federation states that a concern for privacy "is one of the most far-reaching issues that must be tackled" (Bastos and Dedrick 2004). Thus, privacy, as one of the human rights as explained above, has to be regulated because, for example, the low electronic commerce adoption rate in one developing country is attributed to the lack of governmental regulations about privacy and security and insufficient legal protection for internet purchases (Brown 2004; Chung and Shin 2010; Gibbs et al. 2003). Besides this, electronic commerce adoption in another developing country is impeded by the weakness of laws in regard to providing transactional and institutional trust (Mohanna et al. 2011).

Therefore, to increase e-trust and promote using electronic commerce (see sub-sections 4.3.1 and 4.3.2) a modification of most existing national laws is a key requirement (Kluchitsky 2004). This is because laws regulate the relationships between businesses and consumers, and determine the duties that businesses should perform while processing the data subjects' personal information. According to Ho and colleagues (2010) the absence of a data protection act allows the illegal processing or disclosing of personal data to go unpunished. This explains why about 57% of respondents in a Business Week/Harris poll declared that the government should enact laws on how

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personal information is processed (Bloomberg Business Week 2000), and this appears from the fact that OECD voluntary guidelines were implemented by companies through the published privacy policies in their websites (O'Connor 2005). So, governments aim, by enacting data protection legislation, to legally recognise the rights of data subjects by providing guidance and restrictions for data controllers' acceptable behaviour, see further explanation in sub-section 4.3.2, and to provide legal remedies for violators' illegal behaviour (Head and Yuan 2001). This emphasises the significant role of governments as mediators between businesses and consumers to support consumers with a trust they seek when providing their personal information. This reveals that privacy is a complex issue because it involves multiple parties with conflicting interests, and ensures that privacy is not a technical issue but mostly an economical, social and legal issue (Head and Yuan 2001).

However, the figure below clarifies the theoretical framework for privacy protection in EC, as adopted from Head and Yuan (2001) and which is adopted in the current research to guide the researcher in the data collection process, as discussed in sub-section 5.5.4.
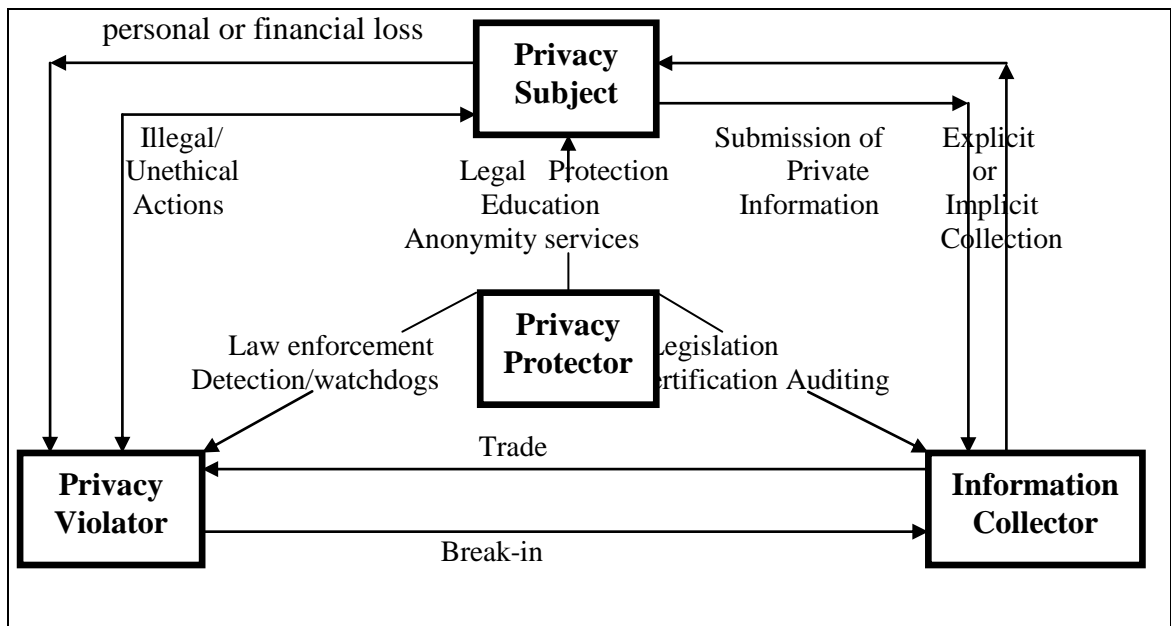
**Figure 2-1: A Theoretical Framework for Privacy Protection in Electronic Commerce.
Source (Head and Yuan 2001, p.150)**

The above figure clarifies the importance of consumers'- data subjects' - personal information for businesses – data controller - to complete the online transactions but, at the same time, this raises a concern among consumers about violation of their information privacy. Therefore, this relationship between businesses and consumers needs an intervention from the governments to regulate this conflict in interests, and this will be discussed in more detail in section 4.3.

2.7   Conclusion

E-commerce, the financial operation for selling and buying goods and services which is conducted electronically using electronic systems, such as the internet and other computer networks, is likely to be an engine of economic growth in the 21st century. The concept of e-commerce and its definition have been discussed in this chapter, along with its benefits (Table 2-2), and the barriers (Table 2-3) which face its implementation. It has been noted that one of the main barriers which influences EC is consumers' fear of providing their personal data to an un-trusted party and this is attributed to their concerns about privacy. So the next chapter is, initially, going to discuss the notion of

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privacy, its historical development, definition and, finally, its relationship with personal

information and the reasons that affect the individual's decision to purchase online.

3 Privacy

3.1 Introduction

Privacy, as mentioned in 2.5.2 - 2.6 - 4.2.1 - 4.2.2 and emphasised in sections 7.2 and 7.3, is one of the main problems when doing business online (Chai and Pavlou 2002; Palvia 2009; Peng et al. 2010; Teo and Liu 2007). This is because the role of information in the global economy, especially in e-commerce, has increased (Azmi 2002) and the use of consumer information is an essential part of conducting any transaction.

This chapter will discuss several issues in relation to exploring this barrier. First of all, privacy should be defined to understand what this term means, and to know which type of privacy this research is going to focus on. This will be achieved in section one. In addition, it is important to know when the right of privacy is invaded and, thus, the consumer is granted the right to sue the entity that invades his/her rights. Several theories were found to address this issue and determine when the right of privacy is invaded, and this will be discussed in the second section. Finally, the last section will discuss the relationship between information privacy and personal data.

3.2 A Brief history of privacy

As mentioned above, it is necessary to shed a light on the historical development of the privacy concept. This achieves, in conjunction with defining the right of privacy, clarification of the divergent types of privacy and which one this research will focus on. Accordingly, defining privacy and determining which type of privacy this current research aims to concentrate on is compatible with the objectives expressed in section 1.2.

First of all, the Electronic Privacy Information Centre (EPIC)[2] and several authors such as Beresford and FrankStajano (2003), Langheinrich (2001) and Jones et al. (2004b), classified privacy, (see sub-sections 4.3.1 and 4.3.2 for detailed information about these types in Jordanian and UK regulations), into four categories: "territorial privacy", "bodily privacy", "information privacy" and "communication privacy".

Territorial privacy concerns the setting of limits to intrusion into the domestic and workplace environment (EPIC 2001; Jones et al. 2004b). Bodily privacy − known as privacy of person (Langheinrich 2001) – it concerns the protection of people's physical selves against invasive procedures such as genetic tests, drug testing and body cavity searches (EPIC 2001; Marsoof 2008). Privacy of communications is concerned with the protection of mail and e-mail, telephone and other forms of communication (EPIC 2001; Langheinrich 2001). Concerns regarding communications privacy increased after 1930 following the growth in telephone systems (Langheinrich 2001), which led to the creation of rules governing the collection and handling of personal information, known as Data Protection (EPIC 2001). Information privacy is a form of privacy that constitutes an especially difficult area of law due to the rapid progress in technology, particularly after the commercial success of the World Wide Web (Langheinrich 2001).

Moreover, the recognition of privacy is rooted in history. It is mentioned in the *Qur'an*[3] and in the sayings of *Mohammed.*[4] The *Bible* has several references to privacy,[5] and *Jewish* law has recognised the right to freedom from being watched.[6]

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[2] Available at: https://www.privacyinternational.org/survey/phr2001/phr2001.pdf.
[3] An-Nur. Surah/chapter 24. versus 27-28. Al-Hujurat. Surah/chapter 49 versus 12.
[4] Book 20, Number 4727 (Sahih Muslim).
[5] Richard Hixson, Privacy in a Public Society: Human Rights in Conflicts 3 (1987) and Barrington. Moore, Privacy: Studies in Social and Cultural History.
[6] Jeffry Rosen, the Unwanted Gaze: the Destruction of Privacy in America (Random House 2000).

In spite of the importance of privacy as a human right, there was no legal protection until the end of the 19th century to enshrine this as one of the basic human rights (Shank 1986). In spite of this deficiency, regulations and national laws have given implicit recognition to this right. This absence of discussion about privacy is due to the fact that privacy is an "illusive concept in law", and it is "like an elephant, [...] more readily recognised than described" (Young 1978, p.2). Recently, privacy has been defined as "the right to select what personal information about me is known to what people" (Langheinrich 2001).

The first legal protection for privacy actually dates back to 1361, when the "Justice of The Peace" Act in England established the notion of behavioural or media privacy (Langheinrich 2001; Michael 1994). This was followed in Britain by the dictum of Lord Cameron in his 1765 judgment of the Entic v. Carrington case when he said that:

> We can safely say there is no law in this country to justify the defendants in what they have done; if there was, it would destroy all the comforts of society, for papers are often the dearest property any man can have.[7]

In the 18th century (1789) - English parliamentarian William Pitt wrote:

> The poorest man may in his cottage bid defiance to all the forces of the crown. It may be frail; its roof may shake; the wind may blow though it; the storm may enter; the rain may enter - but the king of England cannot enter; all his forces dare not cross the threshold of the ruined tenement. [8]

In addition, the concept of privacy was discussed in the 19th century, when the Supreme Court of the United States Judge Thomas Cooley's famous definition of liberty in 1888 states that "the right to one's person may be said to be a right of complete immunity: to be let alone", and then the lawyers Samuel Warren and Louis Brandeis published their paper "The Right to Privacy" in 1890. They defined privacy as "the Right to be let

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[7] John Entick v. Nathan Carrington. [1765] EWHC KB J98. 95 ER 807 Available at: http://www.bailii.org/ew/cases/EWHC/KB/1765/J98.html
[8] See Entick v Carrington, 95 ER 807, [1765] 2 Wils. KB 275.

alone". This definition appeared when they argued against reporters who photographed people without their permission (Warren and Brandeis 1890).

The 1948 Universal Declaration of Human Rights includes provision that protects the right of privacy. Article 12 of the Declaration states that

> "No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honour and reputation. Everyone has the right to the protection of the law against such interference or attacks."[9]

The next major juncture for privacy law came after World War II, particularly after 1960, when governments found electronic data a useful way of keeping account of their citizens (Langheinrich 2001). Thus the spread of credit cards and internet use increases the need to enact such laws. This made many European countries enact data protection laws to prevent the misuse of personal information.

Finally, in regard to electronic commerce activities that depend on the processing of personal information, this research is concerned in particular with the study of "Information Privacy". This is due to the fact that EC, as defined in section 2.2, requires the sharing of personal information, which raises the need to protect private information from invasion. Therefore, the next section will go on to define and determine when the right of privacy is invaded or, in other words, the processing of personal information is illegal.

3.3   Theories of information privacy

Following the revolution in information technology in recent decades, philosophers have paid particular attention to the concept of information privacy when they have aimed to determine the limit between the respect for and abuse of privacy (Moor 1990).

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[9] Available at: http://www.un.org/en/documents/udhr/

The traditional theoretical frameworks for understanding the concept of privacy are presented elsewhere such as in Head and Yuan (2001). These are adopted in the form of fair information practices, as will be discussed in the next chapter and sub-sections 8.2.4.1 and 8.3.2. Therefore, the following sub-sections review the theories that- have tried to define and determine when the right of privacy is invaded.

3.3.1 Controlled and restricted access/limited control theories

According to this theory the control of information is a feature of privacy (Beardsley 1971; Fried 1984; Westin 1970). Fried (1984) critiques the definition of privacy that relates privacy to secrecy, and argues that a person has privacy when he can limit the knowledge of others about himself. Fried argues that "privacy is not absence of information about us in the mind of others, rather it is the *control* we have over information about ourselves." Westin adds that:

> The person who enjoys privacy is able to limit access to others. So, it is a different situation when a person knows that you are ill and the situation when he tries to know the kind of your illness without your permission. In the latter he tries to invade your privacy without your permission (Westin 1970, p.744).

Beardsley (1971) argued convincingly that individuals and groups have the right to decide *when*, *how*, and to *what* extent information about them will be provided to others; these are the concerns of legislators and consumers as will be discussed in sections 3.5 and 4.3.2 and illuminated in chapter seven of the findings. For example, one respondent in this research mentions that one of the main factors that influence consumers' willingness to participate or not in electronic commerce activities is the fear of using technology. This is due to the fear of their personal details being stolen. This fear is attributed to their ignorance about how and what type of personal information is required to complete the online transaction. From this respondent's speech two main

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issues are raised, privacy and security, but they are not the same. Head and Yuan (2001) clarify this by saying that information is private if the *subject* of information can control that information, but information is secure if the *owner* can control that information.

However, this theory has been criticized by Moor in several aspects. First, he stressed that in computerised cultures it is impossible to control the amount of information provided and, in some cases, although people have no control over information about themselves, they have not lost their privacy (Moor 1997). For example, there is the case where A tells C's name or where he is living to B. In this case, C has no control over his personal information, but at the same time he has not lost his privacy, so control is not necessary to ensure that a person has informational privacy (Austin 2006).

For that reason, Moor (1990) proposes the restricted access/limited control theory of privacy, where permission to access information is given only to the right people. Moor disagrees with the attitude that perceives privacy as "direct personal control over information", because it is not possible to apply this concept to information that is provided to another party, as mentioned in section 3.5 and chapter 7 when respondents mention that one of those reasons preventing them to practising EC and providing their personal information is the possibility of their personal information being sold to other companies without their permission. Therefore, Moor maintains that privacy is maintained where the access to information is restricted to the right people (Moor 1990). An example of this theory is where physicians have the right to access patents' on-line medical reports while secretaries do not have this right. Furthermore, in particular circumstances, physicians do not have the right to access all medical reports in the hospital.

There might be no restricted access to the personal information that is stored in computers, but at the same time this does not mean that a person loses his privacy in the case where it is not used by others. For that reason, this theory is not adequate to define the privacy concept.

3.3.2 Undocumented personal knowledge theory

This theory concentrates on the content of information, rather than the control of information. This is the view taken in Parent's definition of privacy (Parent 1983). The author declares that "privacy is the condition of a person's not having undocumented personal information about himself known by others" (Parent 1983, p.306). Information is undocumented – restricted – if it has not appeared in newspapers, court proceedings, and other official documents (Nissenbaum 2004b). According to Parent (1983) information becomes personal for A if it contains facts or truths about himself which most individuals in a given society would not reveal about themselves.

This can be seen from the situation where A reads in an old newspaper that B was a convicted felon. In this case A has not invaded B's privacy, because this information is documented (Parent 1983). A does not invade B's privacy because privacy according to Parent's definition "exclude[s] knowledge of documented personal information" (Parent 1983), so the private interest fades when the information involved appears in the public record. To clarify further, the online consumers, as some of the respondents participating in the current research, consider their personal information provided online as a type of undocumented information that should not be published to the public such as their credit card details. This is because, as Parent defines privacy it is a kind of information that consumers would not reveal about themselves.

According to Moor (1997), this theory avoids some of the criticisms of the control theory of privacy. Parent supposes that A has an X-Ray device and he intends to use it to spy on B when he is sitting at home. In the situation where he does not use it, A has deprived B of control of his personal information, but he has not invaded his privacy. So, in Parent's opinion, B's privacy is still intact because A has not gained undocumented information.

On the other hand, this theory has been criticised in numerous ways. Presume that A sits at B's personal computer and tries to look at his diary lists. In this situation, if A was distracted and did not read the diary, he did not gather any undocumented personal information about B. According to the control theory of privacy, this is classified as a violation of B's privacy, but not in the undocumented theory. Therefore, the undocumented theory classifies some cases as a violation of privacy despite their not being so, and vice versa.

From the aforementioned theories that try to define the privacy concept, it seems that there is no universally agreed upon definition of privacy, because everyone sees privacy from a different philosophical corner. However, while all agree on the right of individuals to be protected from the invasion of their privacy, from the legal side this situation is decisive, as will be discussed in sub-sections 8.2.4.1 and 8.3.2. For example, article 256 of the Jordanian civil law states that "any injurious conduct shall render his perpetrator liable to compensate its harms regardless of any fault." In addition, the UK Data Protection Act, Schedule 1 determines eight principles that should be respected by any entity having to process an individual's personal information. In that case, when that entity fails to respect those principles then this constitutes a breach of the

provisions of this act, and entitles that individual who is harmed by this conduct to sue the perpetrator.

Accordingly, when the personal information of individuals is misused then this gives them the right to complain about this action, due to the legal protection that laws grant for personal information. Therefore, the next section will discuss the relationship between privacy and personal information in more detail.

3.4 Relationship between information privacy and personal data

As discussed above, particularly in 2.5.2, 2.6 and 3.2, information privacy is the particular issue that will be concentrated in this current research. This means that privacy is not data protection because privacy is a wide concept of which informational privacy is but a subset (Broekema 2007). So, further discussion about this type of privacy and the relationship between information privacy and personal information will be reviewed in the following paragraphs.

The issue of information privacy appeared (see section 2.1) in the 1960s and 1970s due to the increased use of government electronic data processing (Langheinrich 2001). According to Brown (2004) many companies now use technology in their commercial activities, which means that they access the personal details of consumers to complete the transaction. However, the importance of gaining access to the consumer's data conflicts with their fear of providing personal information to un-trusted parties (Cranor 2004; Dengke et al. 2010; Murphy and Tocher 2011; Simmons and Simmons 2001; Tofara et al. 2008), which makes them uninterested in entering contracts via the internet (Udo 2001). This fear can have a negative effect on the number of contracts which are conducted online (CWW 2005), and results in consumers staying with the traditional

form of retail, where they know about the other party they deal with. Birnhack (2008), however, disagrees with opinions that see a conflict between the right to privacy and commercial requirements, and stresses that companies can collect and process personal information in compliance with data protection regimes.

Brown (2004) agrees that the main success factor for the completion of transactions (see section 2.6) between companies and consumers is the companies' ability to access consumers' personal details. So the level of services offered depends on the amount of personal information provided by a consumer to get the service (Rust et al. 2002).

Furthermore, this operation requires a level of trust between companies and consumers; if trust exists, this means that the relationship will extend to all aspects of the business and consumers' dealings. However, the lack of such trust, as mentioned in 2.5.2, will raise concerns over privacy within the minds of consumers (Campbell 1997). Therefore, to increase online transactions and encourage consumers to deal online, personal information should made be safe and secure (Chung and Shin 2010).

All scholars are convinced that there is a relationship between personal data and a living individual. For this reason, Simmons and Simmons (2001) said that personal data are those where any person could be identified from those data. Another view of the term 'personal data' comes from the Malaysian Bill as mentioned in Azmi (2002, p.318), according to whom it means:

> Any information recorded in a document in which it can practically be processed wholly or partly by any automatic means, or otherwise which relates directly or indirectly to a living individual who is identified or identifiable from that information, or from that and other information in the possession of the data user including any expression of opinion about the individual and any indication of the intentions of the data user in respect of the individual.

More briefly, it is data that can be recognized as belonging to an identifiable person (Bohlman 2002). Bearing in mind that personal data are connected with an individual's personal life, details such as his name or address and, moreover, his business capacity, might constitute personal data. Also, companies, like individuals, have data that is personal to them, that if it were revealed might constitute an offence against the right to privacy (Simmons and Simmons 2001).

However, not all kinds of information should be protected from invasion (see sections 2.6 - 4.3.1 and 4.3.2) which led Campbell to define information privacy as "the ability of individuals to determine the nature and extent of information about them which is being communicated to others" (Campbell 1997, p.45). Besides, not all personal data is in the form of private facts. So some of the data, if provided, does not constitute an offence against privacy rights (Azmi 2002; Bohlman 2002).

Accordingly, the next section is going to discuss the reasons that make individuals worried about providing their personal data to others, particularly in the electronic commerce sector, and make them less willing to provide their personal information online. This is because there are numerous risks that discourage individuals from providing their personal data through the internet, such as malware emails or net spies (Marsoof 2008).

3.5   Threats to privacy
It is useful to know the risks that face e-commerce implementation, deriving from privacy issues. Privacy concerns remain one of the important issues for the success of electronic commerce, as discussed in sections 2.5.2 and 2.6, and are a primary reason for not trading online (Chellappa and Pavlou 2002). This is because, in the majority of

cases, the consumer must give his/her personal data to complete the transaction. This makes consumers fearful of undertaking online transactions (Fisher and Chu 2009; Hoffman et al. 1999; Office of Information Practices 1999). For example, over half the respondents to a nationwide American survey said that privacy and security are their biggest concerns about electronic commerce (Palmer et al. 2000). The risks that threaten the rights of consumers to their privacy are concentrated on the illegal processing or disclosing of their personal information as will be discussed below and; as provided by interviewees in chapter 7.

The first of such risks is the ability of computers to make predictions about users' interests, which is one factor that can dissuade consumers from entering into such contracts (Marsoof 2008). This is attributed to personal data they provide being saved in the computer, so anyone using the same computer can use the data because the cookies authenticate the process (Cranor 2004). Cookies are used as an implicit data collection tool and can be used for online ordering, storage of passwords and preferences (Head and Yuan 2001).

The cookie is a token that the web browser stores on the user's hard disk in the form of a small text file (Head and Yuan 2001). The function of a cookie is to allow web servers to store and retrieve information on the user's machine (Marsoof 2008). For this reason, using cookies and similar devices is prohibited unless subscribers and users are told they are being used and are given the chance to refuse their use (Marchini 2003; Marsoof 2008). Thus, in the name of the crack-down on terrorism, governments have programmes that store all data that the user has used (Kaleli and Polat 2010). So this gives governments the power to spy on people under this impetus. For example, Etizioni

(2005) was convinced that the Federal Bureau of Investigation (FBI) was able to decipher secret email messages to intercept terrorists planning illegal operations.

Another issue is that information and details given to one company might be sold to another and the second company might send the consumer unwanted advertisements (Kaleli and Polat 2010). For this reason, the consumer avoids providing personal information (Cranor 2004). In addition, if the consumer provides his/her personal information, then it is possible that this may become publicly available, legally or illegally, so others can learn details the consumer would not want anyone to know. For example, the personalized system stores all the data that has been used, so it may be used in criminal and civil litigations to determine the habits of the user, what he or she reads, eats, or posts online (Etizioni 2005, p.258).

This creates a lack of confidence in businesses which are conducted electronically making consumers unwilling to purchase online. This is because the increase in using databases online makes people feel that their control over their personal details is slipping away (Culnan 2000). Therefore, the business week/Harris Poll found that nearly 40% of consumers provide their personal details and purchase from the websites that use privacy policies and that gives them trust and encourages them to buy online (Ackerman and Davis 2003).

Also, providing personal information might give companies feedback about a person's interests and their purchasing ability and/or credit-worthiness (Cranor 2004), and so they may deal with them according to their purchasing ability, giving them a different deal from other consumers, especially in relation to price. Therefore, Price Waterhouse Coopers' study showed that two thirds of consumers will transact online if they know

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how their data will be collected and that the vendor will not do anything unauthorised with their data (Acquisti 2004). According to Bruce Slane, who was the first to hold the post of privacy commissioner in The Privacy Commissioner's Office in New Zealand,[10] such anxieties are linked with the ability of electronic retailers to collect a vast amount of information at low cost, distinguishing the online environment from traditional tools of commerce and thus raising privacy concerns. Therefore, a Harris Poll found that 57% of consumers wanted there to be sufficient rules and regulations governing and regulating how personal data will be collected (Bloomberg Business Week 2000).

To conclude, personal information constitutes an essential factor for electronic commerce implementation. Businesses need consumers' personal information in order to complete their transaction, while the consumers need to be assured with regard to the protection of their information in order to complete the transaction with the seller.

3.6 Conclusion

Privacy is one of the main considerations when doing business online (Azmi 2002; Simmons and Simmons 2001). In spite of the importance of privacy as a human right, there was no compelling call − until the 20th century − to esteem this right as one of the basic human rights (Shank 1986). Therefore, several theories have tried to define the concept of privacy (Beardsley 1971; Fried 1984; Moor 1990; Parent 1983; Westin 1970). The reasons why privacy constitutes an obstacle to the implementation of electronic commerce relate to both technical and non-technical threats (Cranor 2004; Etizioni 2005; Marchini 2003) and these tie in with the first sub-question that concerns determining the reasons that make privacy constitute an obstacle to EC implementation.

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[10] For more details visit http://www.privacy.org.nz/

Therefore, privacy needs to be protected to persuade consumers to provide their personal information to companies through the internet. This should be through enacting appropriate regulations that provide such protection.

However, from the above discussion in this chapter and the previous chapter, it is clear that information privacy is one of the main hurdles that face EC implementation, which inflates the importance of the international effort to regulate this issue and provide consumers with the trust they seek to provide their personal information online. Countries are concerned to regulate privacy and enact regulations governing it. This originates in the borderless nature of global digital networks that creates the need for achieving internationally consistent standards and principles for privacy. The next chapter provides, respectively, an example of the implementation of EC in developing countries, using Jordan as a model, and its implementation in developed countries, with the UK as a model. This is to investigate whether privacy concerns constitute an inhibitor for EC development in both developed and developing countries and how they address these drawbacks.

4 Electronic commerce in Jordan and UK

4.1 Introduction

This chapter will review the previous literature concerning both Jordan and the UK in regard to privacy concerns and their impact on EC implementation. This chapter is divided into four sections: the first section justifies the choice of Jordan, as a developing country, and the UK, as a developed country, as the scope of this research. The second and third sections discuss the implementation of EC in Jordan and the UK, while the last is concerned with the Jordanian and UK legal systems and legislation concerning the privacy issue and EC. However, this chapter aims to address the first, second, and third research sub-questions which are concerned with investigating whether privacy is a hurdle for EC implementation in Jordan and the UK, and if privacy inhibits EC development, and what previous studies in both Jordan and the UK describe as additional obstacles. Finally how do regulations in both Jordan and the UK influence EC implementation and privacy protection?

4.2 Electronic commerce in developing and developed countries: Why Jordan and the UK?

This research, as discussed in sections 1.2 and 1.1, will investigate the impact of privacy regulations on the development of electronic commerce. To achieve this, a comparison between developing and developed countries will be presented. This is because ICTs, in particular EC, are highly successful in developed countries in comparison with developing countries where ICT application is still in the early stages (Aldhmour and Shannak 2009; Bhuasiri et al. 2012); this led to the digital divide between developed and developing countries (Aldhmour and Shannak 2009). This obvious when revising the previous literature which confirmed that ICT diffused rapidly in developed countries but slowly in developing countries which led to an ICT gap or digital divide between

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developed and developing countries (Aladwani 2003), which explains why developing countries always are latecomers to ICT.

However, "there is no established convention for the designation of "developed" and "developing" countries or areas in the United Nations system" (United Nations 2011), but there are some criteria to distinguish between developed and developing countries. For example, according to the "One World Nations Online Project"[11], countries are classified as developed or developing based on different criteria, their Political Rights and Civil Liberties, the Gross National Income (GNI) and Poverty of countries, the Human Development of countries, and the Freedom of Information within a country (Nations Online 2012).

Information and communication technologies are considered the key enabler for globalisation and assisting the flow of information worldwide (Aldhmour and Shannak 2009), which compel SMEs in developed countries to adopt it to compete with large companies (Kushwaha 2011). This clarifies why the desire for adoption of ICTs in the developed countries started from the private sector and after its success, spread to the public sector (Thanh 2008). This is clear from the UK situation where the EC strategy was launched in 1999 while the EG programme was launched in 2004. Besides this, developing countries have recognised the importance of ICTs for development, but they prefer being latecomers and apply similar ICT models to those that were applied and successful in developed countries (Thanh 2008). It is helpful to compare developed and developing countries concerning the privacy issue and its impact on the development of

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[11] The data and information gathered for the Nations Online Project are retrieved from National Governments, National Ministries of Foreign Affairs, National Ministries of Trade, National Embassies, National Statistical Offices, National Tourism Offices and Tourism Boards, Official City Sites, Local Newspapers and NGO's working in a country.

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EC in both of them. This assists developing countries, as latecomers, to follow a similar model to that applied in developed countries with regard to overcoming privacy concerns.

Moreover, Jordan and the UK are chosen in this research as the models for developing and developed countries. On the one side, in Jordan, as a developing country, information and communication technologies such as e-commerce are still in the early stages (Aldhmour and Shannak 2009). This is because the desire for adoption of EC started in 2007 when the national strategy for electronic commerce was issued, which emphasises the high interest from the Jordanian government to use new technology. On the other side, in the UK, as a developed country, the situation is totally different. The strategy for the success of EC was published in 1999 and in 2010 the UK became the second largest online market after the United States (Boston Consulting Group 2010). Therefore, it is helpful to choose Jordan and the UK to achieve the aims of this research. So, the following sub-sections review the previous work on Jordan and the UK concerning EC implementation and inhibitors that influence its implementation in both countries.

4.2.1 Electronic commerce in Jordan

This sub-section discusses the development of the ICTs sector in Jordan and its role on the implementation of EC. This will be covered in conjunction with a discussion of the Jordanian effort to implement EC technology and reviews the factors which influence its implementation in Jordan, addressing whether privacy is one of those factors.

The Hashemite Kingdom of Jordan is a small poor country of 6.113 million people located in the Middle East with an area of $(88,778)^2$ Km (DOS 2010). About 93% of

population is literate, as mentioned in table 4.3. As seen in the following map, there are twelve governances in Jordan including the capital Amman. The country is young as will be discussed below. Jordan gained its independence in 1946, following the United Nations approval of the end to the British Mandate.
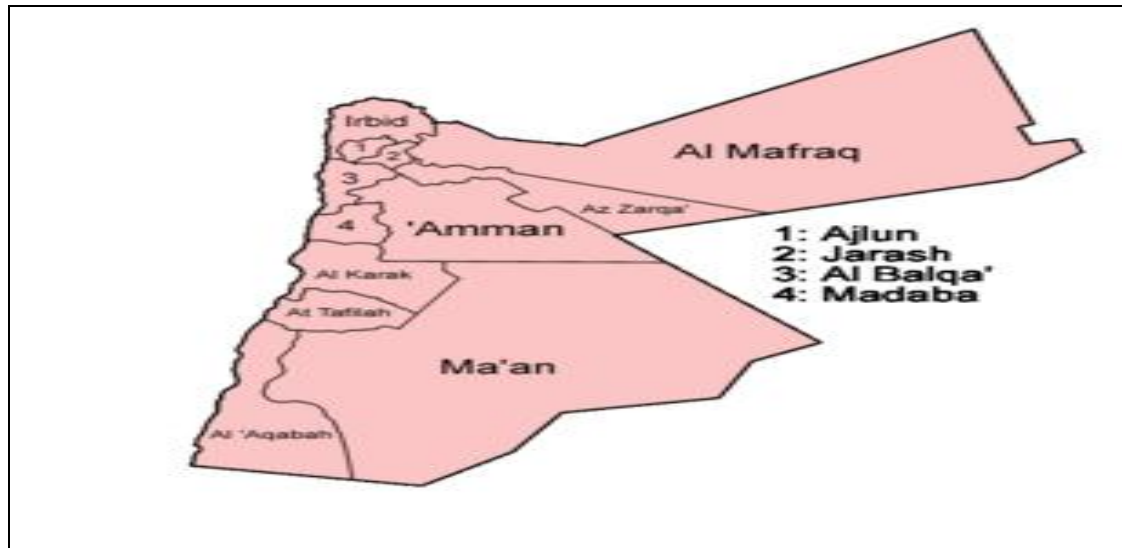
Figure 4-1: Map of Jordan.

After 1999, when King Hussein died, King Abduallah II assumed the throne and began a very comprehensive programme of economic reform and the remarkably stable political and social climate that Jordan has enjoyed for decades under the Hashemite Dynasty continues to thrive under His Majesty King Abdullah's leadership. The new King has undertaken his father's legacy of reform, committing his country to the goals of privatization, economic liberalization and modernization of the law. This could be seen when the Kingdom joined the World Trade Organisation and signed a free trade agreement with the USA and a partnership agreement with the EU.

In addition, as a part of the economic reforms trade liberalisation and privatisation were also promoted as integral elements of the programme aimed at improving efficiency and productivity (Nazzal 2005). After an initial slow start in 1998, privatisation has become one of the most successful programmes of its kind in the region. In particular, it has

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concentrated on national infrastructure and utilities, including transport, electricity, water and telecoms. As a part of King Abdullah II's strategy for economic growth in Jordan, the Minister of Information and Communications Technology announced in 2004, during the Jordanian ICT forum, the launch of a national strategic plan for developing the ICT sector in Jordan. The unveiling of the National Strategy for Electronic Commerce in 2007 followed this announcement.

Computerisation commenced in Jordan in the 1970s, when technical assistance was provided to organisations by the Royal Scientific Society (Kluchitsky 2004). Since 1995, the ICT sector in Jordan has developed rapidly to the point where Jordan became a leader in the IT sector in the region. Further steps were achieved in the ICT sector in 2004, when the Minister of Information and Communications Technology, announced during the Jordanian ICT forum, the launch of a national strategic plan for developing the ICT sector in Jordan.

Although Jordan has a large number of professional people in its ICT sector, the country suffers from a brain-drain of IT professionals, as high salaries in the Gulf countries lure away talented staff (Anima 2008). In addition, Jordan's geographical position has resulted in cancellations or delays to the government's plans for all sectors (including the ICT sector) since the First Gulf War in 1990.

Jordan was studied for a number of reasons. The government's vision to adopt ICTs started in 2000 when H.M. King Abdullah II initiated the national e-government project. This resulted in the REACH Initiative, Jordan's first national information technology strategy, which was created in 1999 to develop the information technology industry in Jordan and enhance its competitiveness in regional and global markets. Owing to these

strategies, the IT sector in Jordan gained momentum during the late nineties and made the country an IT pioneer in the Middle East. This is evidenced by the e-readiness rankings by the Economist Intelligence Unit, (as discussed elsewhere in this thesis), which ranked Jordan after Israel and Turkey in its digital development.

In the telecommunications sector in Jordan, there are four privately owned mobile telecom companies and eight Internet Service Providers. This has led to an increase in the number of internet users from around 238,000 in 2001 to more than 1,500,000 by 2008. Furthermore, a literacy rate of more than 90%, which is one of the highest in the region, has led to more than 5,000 IT students graduating every year from these universities. The high literacy rate in Jordan makes it a good place for conducting ICTs due to the availability of IT professionals (International Good Practice for Establishment of Sustainable IT Parks, 2010).

Moreover, comprehensive strategies for economic reform were commenced in Jordan when the country joined the World Trade Organisation (WTO) in 2000. This organisation emphasised the importance of EC and stressed that it would bridge the technology gap between developed and developing countries (Nsour 2003). In 2000, therefore, Jordan became the first Arab country to sign a free trade agreement with the USA. This agreement stresses the importance of EC as the engine of economic growth in the twenty-first century.

Finally, the National Strategy for Electronic Commerce was launched in 2007. It aimed to develop the technical and commercial abilities of the country's e-commerce sector, promote its adoption and make Jordan one of the leading countries for e-commerce activities in the Middle East. Despite its launch in 2007, there has been no significant

progress in EC implementation in Jordan. This makes it academically exciting to study EC implementation here and investigate the reasons that impeded its diffusion.

From the above discussion, however, it seems that policy makers in Jordan have a desire to diffuse and adopt ICT. This justifies the choice of Jordan as a model of a developing country for study by the current research brought about by the development of EC diffusion and the economic reforms that were launched in the late 1990s.

The comprehensive economic reform strategies within Jordan were started when the country joined the World Trade Organisation (WTO) in 2000. This organisation emphasised the importance of EC and stressed that it would bridge the technology gap between developed and developing countries (Nsour 2003).

This was followed by the signing of the U.S.-Jordan Free Trade Agreement (FTA). The USA and Jordan had signed a trade and investment framework agreement in 2000. This agreement was the first trade agreement signed by the USA with an Arab country. The agreement includes provisions about EC. The FTA states that e-commerce is one of its main provisions, because e-commerce plays a significant role in any economy, and as mentioned in the US-Jordan joint statement on EC it "will be an engine of economic growth in the twenty-first century".

Another step has been taken by Jordan's Higher Council for Science and Technology (JHCST), which formulated a national research and innovation policy for the period 2006-2010. One of the main priorities of the research programme was the ICT sector. According to the Economist Intelligence Unit (EIU), which provides an e-readiness

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ranking, Jordan ranked 51st out of 70 with regard to its ICT sector readiness in 2010[12]. E-readiness means a measure of the quality of a country's ICT infrastructure and the ability of its consumers, businesses and governments to use ICT to their benefit (EIU 2009). In addition, a study by the Royal Scientific Society (RSS) found that Jordan was one of the leading countries in adjusting its laws to conform to technological evolution.

When talking about EC in Jordan, a significant effort should be invested in examining its National Strategy for Electronic Commerce (NSEC). This strategy, which was issued in 2007, plays a significant role in all issues relating to e-commerce in Jordan. It set out a framework for the succeeding five years. This strategy expressed the vision of the overall national agenda, which is a comprehensive plan of work for the period 2006-2015 regarding e-commerce. It aims to develop technical and commercial abilities in the e-commerce sector, to promote the adoption of e-commerce for trade in goods and services on the business and consumer level, and make Jordan one of the leading countries for e-commerce activities in the Middle East.

The main point of this Strategy is to review the barriers that influence electronic commerce in Jordan. The first factor mentioned is related to the lack of a legal environment governing e-commerce. The other factors noted are: awareness, ICT infrastructure, logistical and cultural barriers – further discussion about these factors and their relationship with privacy is placed in section 7.2. The table below shows these factors and how they influence e-commerce in Jordan.

Factor	Barrier
The law and regulation	Lack of a certification authority for e-signatures under the e-Transactions Law NO.85 2001
	Incomplete nature of the laws applicable to e-commerce

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[12] Available at: http://graphics.eiu.com/upload/EIU_Digital_economy_rankings_2010_FINAL_WEB.pdf.

Information security	Lack of awareness among potential e-commerce traders of a need for information security
Electronic payments	No payment system that can easily be adopted by merchants and consumers for e-commerce
Tax	Over-complex tax systems that are difficult to implement electronically
	Inability of the tax authorities to use electronic records
	Additional taxes and other transfer charges levied on mobile telecommunications bills.
Culture	Lack of trust in e-commerce
Awareness	Awareness of laws applicable to e-commerce among the legal profession
	Awareness among tax officials
	Awareness among public sector administrators
	Awareness among consumers, small businesses
Skills	Relative lack of business sophistication
	Skill base in the IT sector including skills of graduate entry
	Skill base amongst lawyers and judges associated with ecommerce
Customs	Current customs processes and the lack of electronic document interchange with customs
IT Sector	Perceptions of lower quality amongst Jordanian ICT companies, particularly in the area of web based applications including e-commerce
	Adoption of technology from abroad
ICT infrastructure availability in homes and businesses	Take up of fixed telephone services amongst consumers
	Low installed base of IT in households and small businesses
	Low take up and high cost of the internet and broadband
	Regional variation in take up of internet access particularly in the southern and rural areas
	Low penetration of outsourced IT
Telecommunications services	No diversity in international links
	Lack of competition in the fixed network, and particularly in access to the FLAG cable which provides International communications
	Lack of local loop unbundling, limiting opportunities for competition in the provision of broadband
	Lack of mobile broadband networks
Logistics	Air transport infrastructure at Queen Alia airport
Electricity supply	Availability of secure sources of electricity supply
Finance and investment	High public sector deficit and debt
	Availability of venture capital

Table 4-1: Electronic Commerce Drawbacks in Jordan.
Source: National E-commerce Strategy[13].

With regard to legal factors, the National Strategy mentioned some enablers that might help to solve the legal issues relating to e-commerce. The first of these solutions is to amend the temporary E-transaction Act NO.85 2001. The aim of the anticipated amendments is to give further protection to the right of privacy and security concerns,

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[13] Available at: http://www.moict.gov.jo/Strategy%20Summary%20Final.pdf.

and to give the consumer the right to identify and correct errors in his/her personal details before completing online transactions. Other feasible regulations proposed in the Strategy are: Digital Signature Law, Consumer Protection Law, and Cyber Crime Law.

Nsour (2003) stressed the importance of enacting new regulations (see sub-section 7.2.3.1) to govern the new applications of technology, such as e-commerce, e-government, and e-education. He added that information privacy protection – see section 3.2 and 3.4 for further information about the types of privacy - is one of the challenges in using technology, and this can be seen to be reflected in the US-Jordan joint statement, which stated that governments and companies should respect consumers' privacy concerns. This statement certified that OECD guidelines would represent the best framework to apply to the Jordanian situation. Another important issue mentioned in the statement is consumer protection, which could be promoted by enacting consumer protection law. Concerning this, Al-Ibraheem and Tahat (2006) stress that the importance of enacting consumer protection law is displayed by the fact that consumers' rights should be protected adequately in cyberspace. This consumer protection law should recognise that the electronic signature has changed the process to form a contract (Balloon 2001).

Shannak and Al-Debei (2005) are convinced that Jordan has sufficient and efficient foundations for practising e-commerce, but they make two main points. Firstly, companies should understand the importance of e-commerce – see sub-section 7.2.2.1 - before adopting it as part of their activities. Secondly, the e-commerce strategy should be realised by increasing internet access, consumer confidence, establishing an adequate payment system and improving internet and web security – see sub-sections 7.2.2.3,

7.2.1.3 and 7.2.2.2. In this regard, the requirements for building an e-commerce infrastructure in Jordan are very similar to those required for realising e-government (see sub-section 7.2.3.1) but there are some extra requirements, such as legal requirements (Al-Ibraheem and Tahat 2006; Alsmadi et al. 2009). For example, privacy concerns and data protection have an impact on the success of online activities (Alsmadi et al. 2009). So the barriers that influence electronic commerce developing in Jordan are the same that face electronic government implementation in Jordan (Al-Omari 2006; Alsmadi et al. 2009).

These barriers (see 7.2.1 and 7.2.2) are internet penetration, infrastructure, awareness, regulations, privacy concerns, and the digital divide which operates in geography, age, skills, income and gender terms (Abu-Samaha and Samad 2007), and the fairness of using the new technology (Ajmian 2009). Commentators have stressed the role of legislators (see sub-section 7.2.3.2) in taking into consideration the requirement to protect users' privacy and the confidentiality of personal information to boost electronic commerce (Al-Omari and AL-Omari 2006; Al-Omari 2006).

Al-Sukkar and Hasan (2005) stressed the impact of privacy concerns on the implementation of electronic commerce, and added other factors (see 7.2.1) such as internet penetration, computer literacy, language, and limited IT skills (Abu-Samaha and Samad 2007; Al-Sukkar and Hasan 2005). With reference to computer literacy; see sub-section 7.2.1.2, it should be noted that there is increasing uptake of the technology at the domestic level, with more and more people using personal computers at home (Al-Nagi and Hamdan 2009). According to a survey conducted by the Ministry of Communications and Information Technology (MoICT) in 2007, 37% of Jordanians

families have a PC at home, of whom 16% have access to the internet. In addition, computer literacy has become compulsory in schools and universities, leading to a general improvement in IT skills (Al-Nagi and Hamdan 2009).

Another important factor that has an effect on electronic commerce is the way consumers in developing countries, including Jordanian consumers, are using the internet. Until recently, most internet usage has concentrated on e-mail and chatting (Al-Sukkar and Hasan 2005). Mofleh and Wanous (2008) examined what influences the willingness of citizens to use governmental online services in Jordan, and concluded that trust in the internet (distinguished in sub-section 7.2.1.3) is one of the barriers affecting their willingness to conduct online transactions. Qualified management, legal environment, infrastructure, and qualified technical staff are some of the other barriers influencing e-commerce in Jordan (Alsultanny n.d).

Lack of awareness on the part of SMEs and consumers is, according to Ajmian (2009), one of the greatest barriers to electronic commerce implementation in Jordan (see sub-section 7.2.2). For example, the report of a survey asserted that the majority of Jordanian company managers did not consider e-commerce important for their activities (Alsultanny n.d). A study conducted in 2009 found that only 1% of Jordanian SMEs were participating in e-commerce (Ajmian 2009). Furthermore, only 3% of Jordanian internet users purchased online.[14] Ajmian concludes that the current situation will be changed by increasing the awareness of traders and consumers (section 8.2) by such means as seminars, workshops and advertising through virtual and audio media. As the Director of Computer and Information Department in the Amman Chamber of Commerce (ACC), Ajmian was convinced in his study of the significant role to be

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[14] Available at: http://www.arabadvisors.com/Pressers/presser-190910.htm-0.

played by chambers of commerce in increasing the awareness of merchants and consumers (Ajmian 2009).

Most Jordanian consumers are convinced about the role played by the media in increasing their awareness of new models of technology (Ajmian 2009). This can be seen in the way school/university exam results have been published on the web, where the media played a significant role in increasing public awareness. This example clarifies the possibility of promoting EC by increasing users' awareness and encouraging them to use new technologies (Belwal and Al-Zoubi 2008). The table below summarises factors that influence electronic commerce implementation in Jordan.

Barrier	
Legal environment	fairness of using the new technology
privacy concerns	computer literacy
consumer protection	Language
consumer confidence	limited IT skills
establishing an adequate payment system	Internet using habits
internet penetration	Trust
Infrastructure	digital divide
Lack of awareness on the part of SMEs and consumers	

Table 4-2: Factors Influencing Electronic Commerce in Jordan.

From the above, it is obvious that privacy concerns constitute a problem for Jordanian consumers to purchase online, and this addresses the first research sub-question concerning whether privacy constitutes an inhibitor for EC implementation in Jordan. This will be supported through conducting a field study in this research, as provided in section 7.2, to investigate why privacy concerns are a hurdle for Jordanian consumers to deal online and how the other inhibitors of EC implementation influence the consumers' willingness to provide their personal information online.

Furthermore, the previous literature on Jordan emphasised the importance of privacy protection to encourage consumers to purchase online, while the NSEC did not mention, expressly, privacy as one of the hurdles encountered by EC implementation in Jordan,

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and this differs from what has been found in the literature: Abu-Samaha and Samad (2007); Alsmadi et al. (2009); Al-Sukkar and Hasan (2005) and Al-Omari and AL-Omari (2006). However, the NSEC and other sources of literature have mentioned the legal environment in Jordan as one of the main factors that influence electronic commerce implementation in the country, which justifies the third research sub-question regarding a review of the Jordanian regulations concerning privacy matters to investigate their impact on EC development in Jordan.

Moreover, from the above table it is clear, as will be depicted in section 7.2 and discussed in section 8.2, that the suggested inhibitors for EC implementation have a significant impact on the privacy concerns and the consumer's willingness to provide personal information online. The increase of trust among consumers to deal online is required, as discussed in section 2.6, through regulating the relationship between consumers and businesses. The intervention of governments and legislators, as will be discussed in 4.3, to regulate this relationship is necessary by enacting the essential regulations that determine the duties of businesses while dealing with consumers' personal information.

Finally, the table below provides significant statistical indicators for the Hashemite Kingdom of Jordan with regard to population and technology.

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Indicator	2010
Total Population (000)	6113.0
Population Less Than 15 Years of Age (%)	37.5
Population Aged 15-64 (%)	59.5
Population Aged 65+ (%)	3.2
Illiteracy Among Population 15+ Year (%)	7.0
Unemployment Rate (%)	12.5
Jordanian Households which have (%):	
Personal Computer	59.9
Internet Access	22

Table 4-3: Indicators about Jordan.
Source: Department of Jordanian Statistics[15].

Some of the indicators presented in table 4-3 seem likely to influence the course of electronic commerce in Jordan, directly or indirectly. For example, the rate of unemployment is high which influences individuals' purchasing power. Furthermore, in 2010 only 22% of Jordanian households had access to the internet, which constitutes another drawback for the adoption of electronic commerce in Jordan.

The next sub-section will discuss the implementation of electronic commerce in the UK which gives a good example about EC implementation in developed countries and justifies the comparison of implementation of EC in developing countries – as being latecomers to the adoption of ICTs – with similar ICTs' models applied and successful in developed countries.

4.2.2 Electronic commerce in the UK

In this sub-section discussion of the development of the EC sector in the UK will be covered in conjunction with a discussion of the factors which influence its implementation there, as depicted in section 7.3 and discussed in section 8.3, and to address whether privacy is one of the factors that influence EC.

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[15] More Statistics Available at: http://www.dos.gov.jo/dos_home_a/main/index.htm.

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The UK government stresses the importance of electronic commerce technology on the national economy (Department of Trade and Industry 2005; Simpson and Docherty 2004), which led the Prime Minister (PM) to publish a strategy for the success of EC in 1999 (Booz Allen Hamilton 2002; UK Online 2000). This has led Parliament to enact several pieces of legislation to regulate all matters related to EC (see sub-section 4.3.2) and comply with the European Union (EU) directives concerning electronic commerce.

On the businesses side, Simpson and Docherty (2004) state that awareness within SMEs has not constituted a drawback for electronic commerce implementation in the UK since 2000 when the government launched the UK's Online for Business Initiative. The UK Online for Business provides SMEs with all the information they request in regard to doing business online (UK Online 2000). In this respect, this sub-section provides some statistics that give an indication to the reader that most UK businesses are ready to practise EC. For example, the UK is considered to "have one of the world's most developed Internet grocery industries" (Key Note 2007, P.2). Further, e-government technology has its role in encouraging both citizens and businesses to practise EC (Furnell and Karweni 1999). Furnell and Karweni argue that e-government has its effect on the costs, provides the opportunity to conduct online B2G, G2C, and G2G services, and its convenience. In simple words, governments will be leading users of e-business opportunities (UK Online 2000). Thus, the official website of the UK's e-government was launched in 2004 and collected all the services in one place.[16]

On the consumers' side, the Office of Fair Trading (OFT) conducted a study to investigate consumers' experience of online shopping. On the one hand, this study revealed the reasons that consumers are willing to purchase online (see section 7.3), or

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[16] E-government website is http://www.direct.gov.uk.

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discouraged. For example, UK consumers are not willing to purchase online due to divergent reasons but, mainly as depicted in sub-section 7.3.1.2 and 7.3.1.3, they do not trust internet shopping and companies (Azmi 2002; Office of Fair Trading 2009); they do not need it, they want to see the product before purchasing it, they have concerns about privacy and security, or do not have a bank account/credit card (Furnell and Karweni 1999). On the other hand, other UK consumers are willing to purchase online, as discussed in 8.3, because they see various benefits, such as it provides wider choices, saves time, is comfortable, gives 24/7 access, prices are lower, it avoids the crowds, provides free delivery of goods, and supplies products not available in the UK (Office of Fair Trading 2009).

Furnell and Karweni (1999) attribute the lack of trust in internet shopping to the unacceptable need to deal with unknown sellers. Besides, consumers' concern about not having control over their personal information is another reason, see sections 3.3 and 7.3.1.2. They add that trust could be influenced by the fact that the other party might be at a different or unknown physical location where the legal rules might be different.

Hand et al (2009) stress that the mentality of consumers affects their willingness to purchase online. They found that consumers are willing to buy directly from the store more than online, because consumers found that online shopping is less satisfactory in comparison with shopping from the store, where new offers and items are recognised quickly (Jamal et al. 2005). However, in their study about investigating the reasons that prevent UK's consumers buying from online grocers, they found that the main reason behind their preference to buy directly from the store, compared with section 8.3, is that

they can have social contact when shopping. Additionally, privacy concerns and internet connection are other reasons that prevent consumers dealing online (McMillan 2003).

Further, Jamal and colleagues (2005) emphasise the impact of regulations on electronic commerce (see sections 2.6 and 3.4) and the concerns of consumers toward their personal information. Concerning this, McMillan (2003) stresses the fact that all markets, and EC is one of those markets, need legal regulation to be successful. The need for regulations (see section 3.5) is due to worries of consumers about spamming of their personal information by some websites, which makes them think twice about providing their details to businesses (Raab and Goold 2009). Therefore, according to Raab and Goold (2009), protection of right to privacy is required, otherwise, it will be at risk of being eroded by the growing demand for information by government and businesses.

According to the National Consumer Council (NCC) in the UK, this lack of confidence, balanced with sub-section 7.3.1.2, of UK consumers is one of the factors that influences their decision to purchase online (BBC 2000; Udo 2001). Moreover, education level (see sub-section 7.3.1.1) constitutes another factor that could influence consumers willing to purchase online. For example, in 2010 the UK's National Office for Statistics revealed that their education level prevents more than 9 million adults in the UK from purchasing online (Office for National Statistics 2010). This is because less educated people are less willing to access the web.

Privacy, still, constitutes one of the major factors that influence electronic commerce in western countries (Boston Consulting Group 2010). Richard Thomas, the ex UK's Information Commissioner, revealed during his speech to the House of Lords Select

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Committee on the Constitution, that protection of personal information is ranked as a second importance social concern after concerns about preventing crimes. The concerns of people regarding privacy are more important than their concerns about unemployment matters, he stated. In other words the

> "Concerns are increasing [...] We know now that something like nine out of ten people […] have concerns about the security of their personal information […] 60 per cent are saying that they feel they have lost control over the way in which their personal information is being used"(House of Lords 2000, para.413).

However, in regards to the readiness of the UK's environment to practise EC, the UK is ranked 14th out of 70 in the 2010 E-readiness ranking,[17] which indicates that the UK is well prepared to implement ICTs in its commercial activities. Examples of the UK's e-readiness include that in 2009, according to the Office of National Statistics, more than 76% of businesses had a website and 15% of businesses conducted retail activities through the website, while 7% sold through ICTs other than a website.[18]

The commercial internet engine in the UK has increased considerably from 25 years ago, when the first '.co.uk address' was registered (Boston Consulting Group 2010). Today, the UK has become one of the leading forces in electronic commerce and the second largest online advertising market for electronic commerce after the United States (Boston Consulting Group 2010). This fact is demonstrated by the Office of National Statistics which estimates electronic commerce sales in 2009 to be in excess of £400bn,[19] and that more than 62% of adults purchased goods through the internet in 2010 (Boston Consulting Group 2010).

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[17] Available at: http://graphics.eiu.com/upload/EIU_Digital_economy_rankings_2010_FINAL_WEB.pdf.

[18] Available at: http://www.statistics.gov.uk/pdfdir/ecom1110.pdf.
[19] Ibid.

The immense quantity of sales made through electronic commerce technology has several reasons. Firstly, the readiness of UK companies to sell through ICTs, which is observable from the Interactive Media in Retail Group (IMRG) survey that issues an annual list of the top 100 e-retailers in the UK. For example, according to the IMRG list the top 10 e-retailers in 2011 are as shown in table 4-4. Of these retailers, most are home-grown companies registered in the UK although some are international (e.g. Amazon, Apple).

Rate	E-retailer	Website
1	Amazon UK	www.amazon.co.uk
2	Argos	www.argos.co.uk
3	Tesco	www.tesco.com
4	Play.com	www.play.com
5	Next	www.next.co.uk
6	Amazon.com	www.amazon.com
7	Your M&S	www.marksandspencer.com
8	Apple	www.apple.com
9	B&Q	www.diy.com
10	John Lewis	www.johnlewis.com

Table 4-4: Top 10 UK E-retailers in 2011. Source: IMRG Classification[20].

Secondly, in 2010, 73% of the UK's households had access to the internet, compared with 25% of the UK's households having access to the internet in 2000 (Office of Fair Trading 2009). This high penetration rate is reflected in the number of broadband providers in the UK. For example, uSwitch.com issued the 2010 Broadband Customer Satisfaction Report and listed the top 8 Broadband providers as shown in table 4-5, below.

Supplier	Score
O2	79%
Plusnet	76%
Sky	66%
Virgin Media	65%
AOL	60%

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[20] Available at:
http://www.imrg.org/ImrgWebsite/User/Pages/Top100HotshopsList2010.aspx?pageID=68&isHomePage=false.

BT	60%
TalkTalk	58%
Orange	44%

Table 4-5: Broadband Service Satisfaction in UK 2010. Source: uSwitch.com[21].

The same observations as were applied to the e-retailers listed in table 4-4 could be made here. Firstly the providers mentioned are the best achievers from a larger pool of broadband providers, which suggests a range of available providers and more competitive prices. The second point is that the number of broadband providers could be one of the reasons for the internet penetration rate in the UK.

Thirdly, the high volume of sales via the internet could also be related to the number of delivery providers who can deliver the purchased products through the internet. According to the Supply Chain Digital Magazine, which is one of the specialist magazines on business and industrial issues such as logistics, the UK's Royal Mail; a public shipping service provider, and ParcelForce Worldwide, a UK private shipping service provider, are among the world's top 10 shipping companies.[22] Furthermore, the top shipping service provider in the world, United Parcel Service (UPS),[23] also offers its services in the UK. Equally, DHL, FedEx and TNT, also listed as being among the top 10 shipping companies in the world,[24] provide services in the UK.

As already stated at the beginning of this sub-section, the 2010 Economist Intelligence Unit Report[25] ranked the UK as number 14 in their e-readiness chart. In relation to this, once e-government services have developed in a country, citizens will be compelled or habituated to interact electronically with the government.[26] So, if they are habituated to

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[21] Available at: http://www.uswitch.com/broadband/customer-satisfaction-full-results/.
[22] Available at: http://www.supplychaindigital.com/magazines/4475.
[23] Ibid.
[24] Ibid.
[25] Available at: http://graphics.eiu.com/upload/EIU_Digital_economy_rankings_2010_FINAL_WEB.pdf.
[26] Ibid.

deal online then they have the experience to deal through electronic commerce technologies. However, the table below summarises factors that could influence electronic commerce implementation in the UK.

Barrier	
Do not need it	Access to the Internet
Want see the product before purchase	Education level
Privacy concerns and security	Do not trust internet shopping
Do not have a bank account/credit card	Lack of confidence
Mentality of consumers	They can have social contact when shopping.
Online shopping is less satisfactory	

Table 4-6: Factors Influencing Electronic Commerce in UK.

From the above, it is obvious that privacy concerns, as happens in Jordan, constitute a problem for UK consumers to purchase online, and this addresses the first research sub-question concerning whether privacy constitutes an inhibitor for EC implementation in the UK, as depicted in section 7.3 and discussed in section 8.3. Thus, according to the National Statistics Office study, privacy concerns for British people were agreed to be the second most important social concern after preventing crimes. This is emphasised in the recent study conducted by the Europarometer Special survey when it disclosed that 87% in the UK consider financial information is likely to be personal information for people who shop online (Special Eurobarometer 2011) and this requires protection from illegal usage. Moreover, reviewing the previous literature, as shown in the above table, shows that all factors influencing EC implementation in the UK are apparently due to the consumers themselves not due to reservations about the government's or businesses' role. This means that consumers' attitude, as depicted in section 7.3 and discussed in section 8.3, is the main issue that influences the consumers' willingness to provide their personal information online. Consequently, the privacy issue, as will be discussed in section 4.3, needs to be taken in consideration to encourage people to purchase online with no worries about their personal information. Finally, the table below provides

significant statistical indicators on the United Kingdom with regard to population and technology.

Indicator	Year	Rate
Total Population (000)	*2010*	62,262
Population Less Than 15 Years of Age (%)	*2010*	19
Population Aged 16-64 (%)	*2010*	64
Population Aged 65+ (%)	*2010*	17
Illiteracy Among Population 15+ Year (%)[27]	*2010*	1
Unemployment Rate (%) in 2011	*2011*	7.7
UK Households who own (%):		
Personal Computer	*2009*	75
Internet Access	*2010*	73

Table 4-7: Indicators about UK 2009-11. Source: National Office for Statistics, UK.[28]

The impression that can be gained about the UK from table 4-7 includes a low rate of unemployment in comparison with Jordan. This means that potentially more individuals have the ability to purchase online due to their purchasing power. Furthermore, the internet penetration rate is very high in comparison with the Jordanian situation, thus facilitating the high volume of electronic commerce activities in the UK.

Finally, the above sub-sections have highlighted the differences between the Jordanian and UK situations in regards to the implementation of EC. Besides, as mentioned in each sub-section, privacy needs to be protected to encourage consumers to purchase online. Therefore, the next section will discuss the effort of each country to regulate privacy matters.

4.3   Privacy and electronic commerce in Jordan and UK legislations

This section discusses how the regulations in each country protect privacy issues through enacting regulations that regulate the processing of personal information. As revealed from the literature above, mainly in sub-sections 2.5.2; 2.6; 3.4; 3.5; 4.2.1 and

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[27] Available at: http://www.guardian.co.uk/news/datablog/2009/mar/09/literacy.

[28] Further statistics available at: http://www.statistics.gov.uk/default.asp.

4.2.2, privacy is considered one of the main hurdles that influence EC implementation in Jordan and the UK. Commentators in both countries, as discussed in sub-sections 4.2.1 and 4.2.2, stressed the need to enact regulations that protect the rights of individuals in regards to their privacy. Therefore, this section will consider the role of each country in regulating EC activities through enacting regulations that protect the rights of individuals in their privacy when they deal online.

First of all, the dramatic growth of electronic commerce on the global level has raised the need to develop governing laws (see section 2.6) that regulate this recent phenomenon of activities (Fisher and Chu 2009). Besides, the advent of the electronic commerce era challenges countries to accommodate new commercial practices, particularly from the legal perspective (Overby 1999; Ritter and Gliniecki 1993; Swire 2003). This is because countries have different social cultures and legal systems, and these differences in legal traditions, cultures, and economic development make harmonisation in the law a complex task (Overby 1999; Thurlow 2001). According to Overby (1999), the rules of the contractual writing and signature requirements existed and developed in most legal jurisdictions before the existence of electronic commerce. However, to overcome the harmonisation difficulty, the essential procedures and principles for matters relating to electronic commerce were provided (Boss 2009), through providing "a tool for states to enhance their legislation as regards paperless communication and storage of information" (Glatt 1998, p.57).

Therefore, the United Nations Commission on International Trade Law (UNCITRAL) issued the Model Law on Electronic Commerce[29] which constitutes a general provision

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[29] Available at:
http://www.uncitral.org/uncitral/en/uncitral_texts/electronic_commerce/1996Model_status.html.

for electronic commerce and leaves the detailed matters, such as processing of personal information, to the national laws. Boss (2009) argues that the success of the Model Law on Electronic Commerce (MLEC) appears, from its enactment by countries around the world such as Australia, France, Canada, Venezuela, China, Jordan and the UK, to have had a significant impact on the national legislations in regard to electronic commerce. Besides, this success is based on the fact that it was a unique tool in a legal scene where there was no existing body of law which comprehensively addressed the issues raised by electronic commerce (Faria 2008).

Moreover, privacy becomes one of the main reasons influencing businesses and consumers, as revealed in section 3.4, to carry out electronic transactions (Rahman and Raisinghani 2000). In addition, the need for legal regulation of the right of privacy relates to the fact that businesses store large amounts of private data which might be misused or stolen and harm individuals (Wittzack 2010). Therefore, over 70 countries have enacted comprehensive national data protection laws to protect personal data processing by governments or companies (Banisar 2011), which can be seen from the map in figure 4-2.
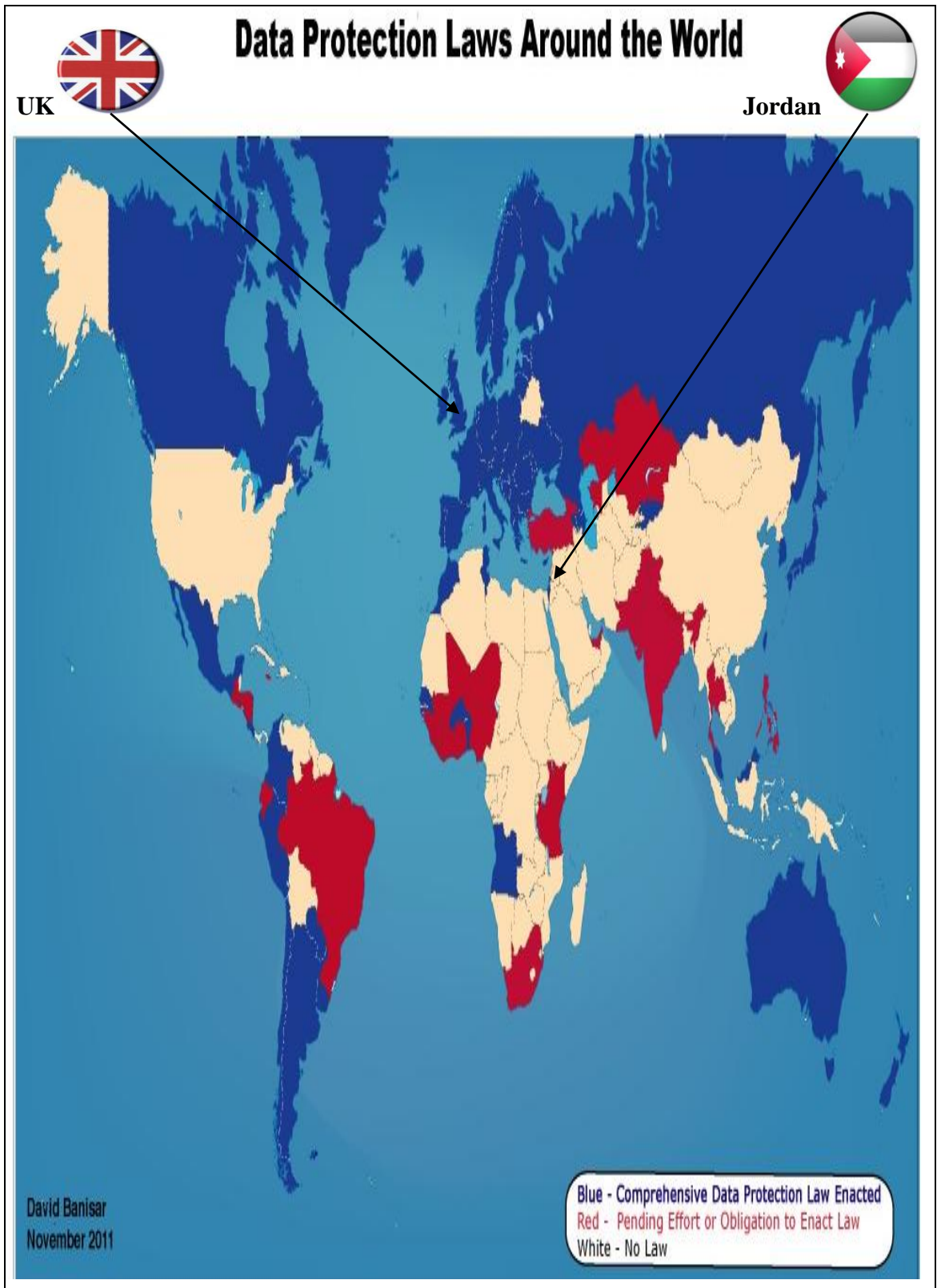
Figure 4-2: Data Protection Laws Around the World Map.
(Banisar 2011, p.1)

However, the Jordanian and UK analysts are convinced about the need to regulate EC activities, particularly privacy matters as discussed in sections 2.6; 4.2.1 and 4.2.2, to encourage consumers to purchase online. Therefore, the Jordanian and UK regulations concerning electronic commerce and privacy matters will be considered in the following sub-sections, while the international effort has been covered and discussed in appendix A.

4.3.1 Privacy in the Jordanian regulations

This sub-section discusses the Jordanian effort in regards to regulation of privacy issues that influence a consumer's willingness to purchase online. It aims to discuss the legal environment concerning EC in Jordan and observes if the other regulations that provide the ability to enact a privacy regulation are carried out or not.

However, it is helpful to mention firstly that Jordan follows the Civil Law Legal System – Codification System – where all legal rules applied in the courts are codified (Dainow 1966; Olwan 2007). This means that the precedent system does not apply in the Jordanian legal system, and there is no option of applying common law because courts are not bound to follow their previous rulings or even those issued by a higher court (Olwan 2007).

To follow this, privacy matters, as discussed in section 4.2.1, have to be regulated and codified in written laws consistent with the fact that the right of privacy is a constitutional right in the Jordanian constitution. Thus, the Hashemite Kingdom of Jordan is a member of the international and regional organisations that stress the right of privacy as a human right. Jordan is a member of the United Nations where the Universal Declaration of Human Rights (UDHR) was issued in 1948, a member of the League of

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Arab States where the Arab Charter of Human Rights was issued in 2004, and a member of the Organisation of Islamic Cooperation which issued the Cairo Declaration on human rights in Islam in 1990. Therefore, Jordan recognises the right of privacy as one of the human rights regardless of its nature; as discussed in section 3.2. Information privacy is one of these types which require an examination of how the Jordanian legislation regulates the processing of personal information, particularly when handled through the internet as one of the EC processes.

Jordanian regulations have an Arabic word, "Khususia", which has a meaning that is similar to "Privacy" (Ghannam 2002, p.189). Thus, as mentioned above, the right to privacy is a constitutional right in Jordan. The Constitution of 1952 emphasises territorial privacy; see section 3.2 for further discussion about privacy classification, as stated in Articles 10[30] and 18[31] of the constitution.

Moreover, with reference to the existence of specialised authorities in Jordan emphasising the right of privacy, there is a National Centre Act for Human Rights (NCHR) 2006 which has been mandated to support and guarantee human rights, including privacy rights. The aim of this centre is to achieve respect for the Universal Declaration of Human Rights and the Bilateral Agreements with the European Union (EU), in the European Communities-Jordan Euro-Mediterranean Agreement 1997. Furthermore it aims to translate the views of the National Agenda 2006-2015, which proposes an approach to improve the quality of life for Jordanians, build a strong

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[30] Article 10 states that "dwelling houses shall be inviolable and shall not be entered except in the circumstances and in the manner prescribed by law."

[31] Article 18 states that "postal, telegraphic and telephonic communications shall be treated as secret and as such shall not be subjected to censorship or suspension except in circumstances prescribed by law."

economy, guarantee basic freedoms and human rights and strengthen democracy and cultural and political pluralism. Additionally, Jordan was the first European Neighbourhood Policy (ENP) partner to hold a sub-committee meeting to discuss human rights issues in an open manner. This was in 2005, in the Sub-committee on Human Rights and Democracy (Commission of the European Communities 2006).

Concerning the protection of information privacy in EC activities, as discussed in sub-section 4.2.1 and depicted in section 7.2, electronic commerce is still in its early stages in Jordan; this can be attributed to various factors and mainly the inadequacy of the legal environment that governs e-commerce activities (Al-Ibraheem and Tahat 2006; Mofleh and Wanous 2008; Nsour 2003). However, the Electronic Transaction Act (ETA) which was enacted as a temporary Act in 2001 has still not been permanently adopted by the Jordanian parliament. This Act makes Jordan one of the first Arab countries to enact electronic commerce legislation (Al-Ibraheem and Tahat 2006) to facilitate the use of electronic means to conduct transactions. This Act adopted the United Nations Commission on International Trade Law (UNCITRAL) Model Law on Electronic Commerce[32] which constitutes a general provision for electronic commerce and leaves the detailed matters, such as privacy, to the Jordanian legislators to enact adequate laws.

Nevertheless, the right of individuals to information privacy is mentioned in one place in this act, where article 37 threatens that any institution engaged in the authentication of documents shall be penalised by the payment of a fine amounting to JD5000 if it submits faulty information in the registration application, or discloses the secrets of the

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[32] Available at:
http://www.uncitral.org/uncitral/en/uncitral_texts/electronic_commerce/1996Model_status.html.

client, or violates the regulations and instructions that are issued in accordance with this law. This act determines the punishment that is taken against any institution that invades the right of privacy but it does not determine the duties that this institution should respect during the processing of personal information. This raises the need to enact regulations that determine such responsibilities.

Furthermore, there is no electronic signature legislation in Jordan, which leaves several issues concerning electronic signature un-regulated. Head and Yuan (2001) stress that personal information will be secured when the owner is able to control that information, and the aim of electronic signature laws is to complete the data protection principles, as will be discussed in 4.3.2, that ensure the importance of using appropriate technical and organisational measures against unauthorised or unlawful processing of personal information.

Finally, it is obvious that, theoretically, there is the desire and will inside the Jordanian government to protect the right of privacy, including information privacy, but on the practical side it still needs to enact a data protection act to enhance this vision and promote EC implementation. However, having discussed the Jordanian effort in regulating privacy matters, the next sub-section will investigate the UK's efforts.

4.3.2 Privacy in the UK regulations

This sub-section concerns the UK's efforts in regard to privacy matters. It aims to discuss the legal environment concerning EC in the UK and how the executive, legislative and judicial authorities protect the right of privacy. It notes first that the UK applies the Common Law Legal System - doctrine of precedent - which is prevalent in the Anglo-Saxon countries (Dainow 1966; Dewey 2011; Zander 2004). This legal

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system stands on the fact that when the court rules a particular decision to hold between parties, this decision will bind those parties and any similar settlement in the future with the same conditions. But this does not mean that legislation does not have a role in the common law system; it plays a limited role because statutes consist of particular rules for certain situations, not general principles as in the civil law system (Dainow 1966). This means that the UK legal system requires a case law and legislation as a source of law.

The UK regulations play a significant role with regard to the right of privacy, regardless of whether it is classified as territorial privacy, bodily privacy, information privacy or communication privacy (see sections 3.2 and 3.4). The basis of those regulations is the Human Rights Act (HRA) 1998, which is derived from the European Convention for the Protection of Human Rights[33] and which gives the possibility of pursuing proceedings in the UK courts or making an application to the European Court of Human Rights (ECHR). Before going to the ECHR the applicant must take proceedings in the UK courts.

So, for instance, communication privacy in the UK is protected when the European Court of Human Rights rules in the application presented by *Lynette Copland* against the *United Kingdom Government* that the collection and storage of personal information relating to *Ms Copland* through her use of the telephone, e-mail and internet interfered with her right to respect for her private life and correspondence, and that interference was not in accordance with the law[34].

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[33] Article 8 of the UK Human Rights states that: "Everyone has the right to respect for his private and family life, his home, and his correspondence."

[34] ECHR, *Copland v. United Kingdom*, Judgment of 3 April 2007, Application No. 62617/00.

Furthermore, the importance of legislating information privacy and EC matters is based on the vision of the European commission that Europe - and the UK is a member of the EU - will benefit from electronic commerce if it has up-dated legislation that meets the requirements of businesses and consumers (Kelleher 1998). Thus, Kelleher (1998) argues that the European Commission is convinced that electronic commerce cannot be regulated unilaterally but there is a need to work globally to get unified legislation in regard to electronic commerce. For this reason, President Clinton and the Leader of the EU agreed that "electronic commerce requires a coherent, co-ordinated approach internationally" (EU and US Summit 1997).

Likewise, consumers should be willing to provide their personal information online, as discussed in sections 2.6 and 7.3.1.2, and participate in EC activities. This raises the issue of the importance of regulating the relationship between consumer and seller concerning personal information, as discussed in section 2.6. Besides this, the need to regulate EC is due to the fact that a buyer could purchase from a seller located outside the UK and EU, which creates some legal problems such as jurisdiction matters, with the need to transfer personal information globally to complete the transactions. This requires intervention from policy makers to regulate such problems (Department of Trade and Industry 2005). In this respect the UK has achieved good progress in regulating all matters related to EC implementation compared with other countries, particularly Jordan.

Concerning the regulations in the UK regarding EC matters, several regulations have been enacted and regulate electronic commerce. For example, the Sales of Goods Act 1979, Supply of Goods and Services Act 1982, and Consumer Protection (Distance

Selling) Regulations 2000 No.2334 and its 2005 amendment No.689, apply to distance contracts as offline contracts. However, these acts did not mention the right of privacy expressly, but their applicability to all contracts, regardless of whether they are conducted offline or at a distance, gives the ability to apply the provisions of the data protection act, particularly when concerned with the transferability of personal information to another country.

However, the right of privacy and the processing of personal information has been regulated clearly in several regulations, such as the Electronic Commerce (EC Directive) Regulations 2002 No.2013. This follows what has been mentioned in the European Directive 2000/31/EC that requires the member states' regulations to comply with its provisions, and its amendments − EC Directive (Extension) 2003 No.115, EC Directive (Extension) 2003 No.2500, and EC Directive (Extension) 2004 No.1178. These have been enacted to regulate those contracts concluded at distance.

In addition, the Electronic Signature Regulations 2002 No. 318 was enacted in compliance with the Directive 1999/93/EC on a community framework for electronic signature. It regulates all matters related to electronic signature by specifying, for example, the requirement for a qualified certificate that fulfils the requirements to link a signature to a person and confirms the identity of that person. This directive respects the right of privacy. It contains provisions that regulate the relationship between a certified service provider and the data subject (as stated in Paragraph 5). It is about the provider's duty to process personal information lawfully. This is because, for example, a digital signature contains two related keys, a public key, which anyone can know and a private key, which only the data subject knows (Greenleaf and Clarke 1997). In other words, a

digital signature is an electronic one that is used to authenticate the identity of the sender of a message to ensure that it has been sent unchanged (Goyal 2012, p. 354). It thus requires the existence of a data protection act to regulate its handling and processing. This is because, as Berta et al. (2004) argued , both the user of the digital signature and its intended recipient (who could be a service provider or merchant or another user) trust a Third Trust Party TTP. In addition, both the recipient of the digital signature and the TTP should not conspire against the user.

Moreover, regarding the holding and processing of personal information, or information privacy, the Data Protection Act[35] [36] was enacted in the UK in 1998[37], as shown in figure 4-2. This DPA follows the same provisions and principles which were proposed in the European Council Directive 95/46/EC, the Organisation for Economic Co-operation and Development[38] [39] (OECD Guidelines 1980), which is considered a valuable model for developing policies and respecting the democratic values regarding

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[35] The Data Protection Act 1998 has been followed by complementary orders since 1998. These include the Data Protection Act 1998 (Commencement) Order 2000 No. 183, the Data Protection (processing of Sensitive Personal Data) (Elected Representatives) Order 2002 No. 2905, the Data Protection (processing of Sensitive Personal Data) Order 2006 No.2068, the Data Protection Act 1998 (commencement No.2) Order 2008 No.1592 (C. 71), and the Data Protection Act 1998 (commencement No.3) Order 2001 No.601 (C0 21). The DPA 1998 and orders that followed it aim to make new provision for the regulation of the processing of information relating to individuals, including the obtaining, holding, use or disclosure of such information.

[36] The Privacy and Electronic Communications Directive 2003 No. 2426; and its amendments, the Privacy and Electronic Communications (EC Directive) (Amendment) Regulations 2004 No. 1039 and Privacy and Electronic Communications (EC Directive) (Amendment) Regulations 2011 No. 1208, and the Access to Medical Reports Act 1988 and the Access to Health Records Act 1990 are other directives providing protection for personal information.

[37] The 1998 Act replaced and consolidated earlier legislation such as the Data Protection Act 1984 and the Access to Personal Files Act 1987.

[38] The OECD is an international economic organisation. It was established in 1961 in Paris. The Convention on the Organisation for Economic Co-operation and Development 1960 was drawn up to reform the Organization for European Economic Co-operation (OEEC); which formed in 1948 to reconstruct Europe after the World War II.

[39] There are 35 members' countries in the OECD. These countries are: Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States.

personal information protection (European Commission 2001), and the Convention for the Protection of Individuals with Regard to the Automatic Processing of Personal Data, which was adopted in 1981 (No 108).

However, it is going to be almost impossible to argue that the DPA Principles have been breached if *A*'s items of personal data are processed by data controller *B*, for purpose *C* for *D* years, and *B* informs *A* that those personal data will be shared with organisation *E* for purpose *F*.

From the above example the right of **A**'s privacy is not invaded unless **B** exceeds his responsibilities as determined in the Data Protection Act. **B** gets **A**'s consent for processing his personal information because, as stated in the DPA, this processing is necessary for the performance of a contract; processing or disclosing **C** and **F** is necessary for compliance with any legal obligation to which **B** is subject or to protect the vital interests of **A**. In any of these circumstances **B** processes personal information lawfully and fairly – called collection limitation principle – because he gets **A**'s, or his representative's, consent before the processing of his information. However, fairness is an indefinable concept and this is obvious from the case between Mr L Johnston v Information Commissioner in 2011 when the Judge Anisha Dhanji wrote that fairness is a broad concept capable of embracing a range of considerations[40], and the matter is not being considered from the point of view of the data subject alone but it requires a balance of interests between the data subject and data controller.

In this respect, the Court of Justice of the European Union ruled that any act of referring, on the internet, to a person's telephone number or information regarding their

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[40] Case EA/2010/130 and EA/2010/131 of 21/03/2011: L D Johnston v Information Commissioner .

working conditions and hobbies constitutes the processing of personal information which needs the data subject's consent[41]. This is consistent with what has been found in Mr L Johnston v Information Commissioner's Office[42] which emphasises the inherent tension between the objective of freedom of information and the protection of personal information, and this emphasises why the DPA 1998 requires the processing of personal information fairly and lawfully.

If this happens, it gives **A** the chance, for example, to control his bank account if it has been charged for a specific transaction, which is important if he did not enter into that transaction. However, there is kind of personal information that requires the data controller to get the explicit consent of the data subject; this is sensitive personal information as determined in the DPA 1998[43]. However the proposed reforms, in 2012, to the EU's data protection Directive 1995 assert that whenever consent is required for data processing, it will have to be given explicitly, rather than be assumed (European Commission 2012), giving individuals more confidence to participate in online transactions.

Furthermore, a data controller should fulfill its requrements in front of the data subject. for example, it should be made clear to the data subject – **A** – which data are compulsory and which are optional (United Nations 2003), and the consent of the data

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[41] Case C 101 of 06/11/2003: Gota Hovratt vs Bodil Lindqvist. Available on: http://curia.europa.eu/en/content/juris/c2_juris.htm.

[42] Case EA/2010/130 and EA/2010/131 of 21/03/2011: L D Johnston v Information Commissioner .

[43] Regulation 2 of the DPA reveals that sensitive data consist of information as "A) the racial or ethnic origin of the data subject, B) his political opinions, C) his religious beliefs or other beliefs of a similar nature, D) whether he is a member of a trade union (within the meaning of the Trade Union and Labour Relations (Consolidation) Act 1992), E) his physical or mental health or condition, F) his sexual life, G) the commission or alleged commission by him of any offence, or H) any proceedings for any offence committed or alleged to have been committed by him, the disposal of such proceedings or the sentence of any court in such proceedings."

subject must be clarified before such processing (Kobsa 2001; Simmons and Simmons 2001). From the example provided, **B** does not invade the right of privacy because he determines the specific reasons, **C** and **F**, for processing and disclosing **A**'s personal information and this is compatible with the DPA provisions – data quality, openness and purpose specification principles – which oblige the data controller to obtain personal data only for one or more specified and lawful purposes, and data shall not be further processed in any manner incompatible with that purpose or those purposes. For example, the data collected to monitor the proper delivery of goods or performance of the service ordered by the consumer should not be used for other purposes without the consent of the consumer for such use (Rahman and Raisinghani 2000). Thus, it is not acceptable to ask the data subject to give his date of birth when such information is not necessary to complete the transaction (House of Lords 2008).

Therefore, **A** has the right to prevent **B** from processing his data if such processing might cause damage or distress (Simmons and Simmons 2001); this is called the individual participation principle as mentioned in the DPA 1998. The right of participation can be seen in the decision of the Commission of the European Communities, which was issued on 12th December 2007 and emphasised the right of the data subject to access, to rectify and to object according to the applicable data protection legislation (European Commission 2008, p.18).

The main critical issue for the judges is to determine firstly whether data is personal data and then examine whether it is handled in accordance with the DPA 1998. In this respect, the Information Tribunal ruled in 2007 and upholds the Information Commissioner's opinion when it states that

> "In assessing fairness it is likely to be helpful to ask whether the information relates to the private or public life of the person to whom it relates. Information which is about the home or family life of an individual, or his or her personal finances, or which consists of personal references, is likely to deserve protection. By contrast, information which is about someone acting in an official or work capacity should normally be provided on request unless there is some risk to the individual concerned."[44]

However, in the circumstances that require **B** to surpass this aim, it should be accepted by **A** before that action (United Nations 2003), and the criterion to determine the legitimacy of processing personal information is kept to the appreciation of courts or national data protection institutions (Rahman and Raisinghani 2000). In this respect, the limitation principle can be seen elsewhere in the Commission of the European communities' decision of 6th September 2005 on the adequate protection of personal data contained in the passenger name record of air passengers transferred to the Canadian Border Service Agency. The latter determined a specific target for collecting personal information about passengers from European and other carriers. This target is to "identify persons at risk to import goods related to, or persons who are inadmissible to Canada because of their potential relationship to terrorism or terrorism-related crime, or other serious crimes, including organised crimes, that are transnational in nature" (European Commission 2006, p.53).

Moreover, **B** does not invade the right of privacy because he determined that personal information will be kept for **Y** years, which is compatible with the DPA 1998 provisions which state that the data controller – **B** – should not keep the data subject's – **A**'s – information longer than – **Y** –necessary for the purpose **C** and **F**.

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[44] Case EA/2006/0015 and EA/2006/0016 of 16/01/2007: The Corporate Officer Of The House Of Commons v Information Commissioner and Norman Baker MP.

In addition, the DPA 1998 takes into consideration the global nature of the internet, as discussed in 2.6, and states two essential principles that fulfil the trust and confidence of consumers when providing their personal information online. On the one side, this occurs when it is stated that the data controller – **B** – must use appropriate technical and organisational measures against unauthorised or unlawful processing of personal data and against accidental loss or destruction of, or damage to, personal data. For example, **B** must ensure the reliability of any of his employees who have access to personal data. If such techniques apply, then this will give the data subject the confidence and trust that their personal data will be kept secret (Azmi 2002). Thus, **B** should have techniques, for example e-signature, to verify the identity of the visitor. Also, these data should be updated if there is any change in circumstances (Simmons and Simmons 2001).

On the other side, taking into consideration that **B** might be outside the UK or Europe, the DPA 1998 states that personal data shall not be transferred to a country or territory outside the European Economic Area (EEA) unless that country or territory ensures an adequate level of protection for the rights and freedoms of data subjects in relation to the processing of personal data[45]. In this respect, the decision of the European Community issued on 5th February 2010 has determined the standard contractual clauses for the transfer of personal data to processors in third countries[46]; which gives the

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[45] However, there are several exemptions from the 8th principle, even if there is no adequate level of protection. These exemptions are mentioned in Schedule 4 of the Data Protection Act 1998. They comprise an individual's consent (paragraph 1), contract performance (paragraphs 2 and 3), substantial public interest (paragraph 4), legal proceedings (paragraph 5), vital interest (paragraph 6), public registers (paragraph 7), or this transfer approved or authorised by the commissioner (paragraphs 9 and 10).

[46] Full text available on:
http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:039:0005:0018:EN:PDF.

consumer the confidence and trust to provide their personal information online regardless of the data controller's physical location.

However, to ensure the compliance of the data controller with the provisions of this Act, Article 6 of the DPA has regard to the creation of the Information Commissioner's Office (ICO) as a non-departmental public body, which is responsible for the implementation of the Data Protection Act 1998 and the Freedom of Information Act (FIA) 2000; dealing with the right to access personal information held by public authorities. The Commissioner's duties are determined in the regulations of the Data Protection Act. They are to regulate the relationship between the data controller and the data subject. He can oblige the data controller to implement his determined duties in the Act, and advise the data subject to protect himself from identity fraud or the misuse of his information[47]. Furthermore, if anyone disagrees with the notice received from the commissioner, he can appeal to the first tier tribunal[48] (Information Rights Tribunal, previously called the Data Protection Tribunal)[49]. According to the DPA 1998, five types of notices are issued by the Information Commissioner. These comprise decision notices (Regulation 28), enforcement notices (Regulation 40), information notices (Regulation 43), special notices (Regulation 44), and monetary penalty notices (Regulation 55).

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[47] For more information visit the official website (http://www.ico.gov.uk/).

[48] Tribunals are specialist judicial bodies which decide disputes in a particular area of law. The first tier tribunal comprises six chambers: (The General Regulatory Chamber, Health Education and Social Care Chamber, Immigration and Asylum Chamber, Social Entitlement Chamber, Tax Chamber, War Pensions and Armed Forces Compensation Chamber). The Information Rights Tribunal is a part of the General Regulatory Chamber, and comprises 16 judges who are all solicitors or barristers with at least 7 years' professional experience.

[49] It was renamed an information tribunal when its responsibilities were expanded and it began hearing other information appeals under the Freedom of Information Act 2000, Privacy and Electronic Communications Regulations 2003, and the Environmental Information Regulations 2004. (http://www.justice.gov.uk/guidance/courts-and-tribunals/tribunals/index.htm).

4.4 Conclusion

To conclude, the UK is one of the leading nations in the field of electronic commerce; while Jordan is one of the growing environments in regard to information and communications technologies, which makes Jordan a leader in the IT sector in the region. Therefore, this chapter produced examples about one leading country with regard to EC and another that is trying to succeed in adopting the new EC technology in its national sphere and encourage both consumers and businesses to accept this new way of conducting transactions. In spite of this gap between Jordan and the UK regarding EC activities in both countries, privacy is one of the most important factors that influence both Jordanian and UK consumers' willingness to purchase online. Furthermore, this chapter shows to what extent the legal environment in each country is able to regulate matters relating to privacy.

The literature chapters covered all essential parts of the proposed research questions in this current research. The second chapter addressed the relationship between EC and Privacy by revealing that privacy concerns are considered an international issue for EC development; due to the global nature of the internet. Chapter three has addressed various types of privacy and reveals which is located within the scope of this current research. In addition, it determines the borders that are taken into consideration to determine when the right of privacy is invaded. This was emphasised in chapter four that focused on Jordan and the UK; when the literature review for both countries disclosed that information privacy is one of main factors that influences consumers in each country to purchase online. This raises the need to boost this kind of commercial activity by increasing the trust and willingness of consumers to provide their personal

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information online; this is achieved by regulating the procedures that should be respected by the data controllers when processing personal information.

The literature outlined above indicates that there is a lack of research in Jordan investigating EC and privacy issues from the non-technical side. Furthermore, it is obvious from the literature that there is a lack of comparable research between developing and developed countries in regard to privacy concerns and their impact on the development of EC. Furthermore, the literature outlined above indicates that there is a lack of research that investigates the impact of EC inhibitors on privacy concerns. Therefore, the next chapter will discuss the kind of methods and methodology that will be applied to identify how the current literature is reflected by EC stakeholders such as consumers, businesses and governmental agencies in Jordan and the UK.

5   Research Methodology

5.1   Introduction

This chapter provides an explanation of the research methodology that will be used, as well as providing a discussion of the range of philosophical paradigms that can be adopted by information systems and social science researchers. It will explain the approaches which the research and researcher have adopted. It will also look at the various research methods which the research will deploy for data collection, as well as the specific methods that the research will use to gather data from the stakeholders. Finally, the process that current research applies will be justified.

5.2   Philosophical paradigms

As mentioned above, this section will discuss the applied philosophical paradigms in IS research that define as a set of assumptions, concepts, values, and practices that constitute a way of viewing reality for the community that shares them. Under its three subheadings, this section will discuss the main philosophical paradigms that are available to IS research. A paradigm is "a set of shared assumptions or ways of thinking about some aspect of the world" (Oates 2006, p.282). Put another way, it is a basic belief system based on ontological, epistemological and methodological assumptions" (Guba and Lincoln 1994, p.107).

In IS, there are two distinct over-arching paradigms that each correspond to a distinct epistemological position. According to March and Smith (1995); Hevner et al.(2004), Melville (2010) and Ayanso et al.(2011) these are: the Behavioural Science paradigm (a problem understanding paradigm) which has its roots in natural science research methods and seeks to develop theories that explain and predict human or organisation behaviour; and the Design Science paradigm (a problem solving paradigm) which has

its roots in engineering and the sciences of the artefact and seeks to extend the boundaries of human and organizational capabilities by creating new and innovative artefacts. However, the paradigms are not in conflict with each other because they should be in existence together and complement one another (Hevner et al. 2004).

With regard to the aims of this research, the Behavioural Science paradigm is most applicable due to the fact that IS research focuses on "artificial" phenomena that involve tools, techniques, and materials designed and implemented by humans to achieve predefined objectives (Ayanso et al. 2011) and, as mentioned by March and Smith (1995), these phenomena can be "created or studied". The current research is not going to create a new artificial phenomenon but study the existing one and develop theories which explain or predict organisational and human phenomena surrounding the analysis, design, implementation, management, and use of information systems (Niehaves and Stahl 2006).

In addition, the study area combines the interdisciplinary fields of social sciences and information systems (IS). Social sciences aim to study human society and social relationships (Kuper and Kuper 2004, p.6), and one aim of this research is to investigate other EC implementation drawbacks and their influence on consumers' willingness to provide their personal information online. In addition, concerning the current research's aims, legal theory provides a wider context for the investigation of the impact of privacy regulations on consumers' willingness to participate in e-commerce activities in this research. Law constructs society and politics, according to the modern legal philosophy (Patterson 2010, p.269), and plays a significant role in regulating relationships between people in society. This is achieved by explaining of the meaning of concepts of

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morality, knowledge and law that shape a variety of human practices. These concepts are gathered from people who form our society and are then analysed to give a greater understanding of the social phenomena they describe (Patterson 2010).

Furthermore, IS is concerned with the development and use of information technology in society (Oates 2006), and how these are incorporated within diverse fields such as social sciences and law. It involves people, procedures, data software, and hardware that are used to collect and analyse digital information (Oates 2006). Regarding the aim of this research, people constitute a major component of information systems, which is the reason for studying them.

Finally, according to chua (1986) Behavioural Science paradigms include: Positivist, Interpretive, and Critical research paradigms, each of which will be discussed and will form the subject of the following three subsections. The paradigm framework made up in this chapter follows Davies' (1990) framework in concentrating on the relationship between ontology (theory of reality), epistemology (theory of knowledge) and methodology (theory of method).

5.2.1 Positivism

According to Cooclian (2004) positivism is a "scientific method" and the scientific belief that facts in the world can be discovered only through measurements of what is observable (Oates 2006). Understanding the relationships between these measurements yields scientific laws, so the positivist approach can be seen as oriented towards technical control (Doolin 1998). Thus this approach is based on the assumption that things can be studied as hard facts and the relationship between these facts can be established in the form of scientific laws. For positivists, such laws have the status of

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truth; furthermore, social objects can be studied in much the same way as natural objects (Smith 1998, p.77).

William Outhwaite (1987, pp.5-8), a social science theorist, classified three generations of positivist philosophers as below:

- Traditional positivism, founded by Auguste Comte, Herbert Spencer and Emile Durkheim. This is the generation which founded positivism in the 19th century.

- Logical positivism (logical empiricism) was a branch of positivism developed by major philosophers in the early 20th century. Its exponents include A.J. Ayer and Rudolf Carnap.

- Standard positivist accounts developed in the post-war period in the West are linked with the work of Carl Hempel.

Positivism, which actually has earlier roots from the Renaissance onwards in the work of Bacon and Newton, is not always suitable for studying the social world (Stahl 2007). This is because, according to Oates (2006), positivism is based on two assumptions: the first is that our world is ordered and regular, not random, and the second is that we can investigate it objectively. This method presupposes the existence of a reality that is independent of human behaviour and is not a product of the human mind (Crossan 2003; Stahl 2007), and this is affirmed by the experimental method that seeks evidence of cause and effect.

However, the general elements of positivist research have a number of implications for social research. These implications are:

- Methodological: all research should be quantitative (Crossan 2003).

- Reductionism: this means dividing complex questions into smaller elements, which make them easy to study (Crossan 2003; Oates 2006).

- Repeatability and Independence: the researcher should repeat the experiment more than once, because he cannot rely on a single result, and the researcher should be unbiased and independent of the examination process (Crossan 2003; Oates 2006).

- Value-freedom: objective criteria should be the basis of choosing the kind of research under study (Crossan 2003).

- Refutation: if the researcher cannot repeat the experiment and the same result then this is a basis on which to refute the hypothesis (Oates 2006).

- Causality and operationalization: there is a relationship of proof between cause and effect which explains human behaviour through applying operations that may be measured quantitatively (Crossan 2003).

Depending on the above ontological beliefs about the positivist system, positivists stand on the assumption that objective physical and social worlds exist independently of humanity (Orlikowski and Baroudi 1991; Stahl 2007; Weber 2004). The positivist researcher makes observations and measurements according to hypotheses and theories, and the outcome will be an explanation or a single version of the truth. This truth is produced by the neutral and passive researcher, working independently and uninfluenced by his beliefs and personal values (Orlikowski and Baroudi 1991; Weber 2004).

In addition, the epistemological beliefs of positivists' (empiricists) use empirically testable measurements in order to verify or falsify hypotheses or theories, by applying the hypothetic deductive approach (Stahl 2007). This entails dividing the sample into smaller parts to make it easy to study (Orlikowski and Baroudi 1991), which might be

workable in this research where some respondents have different attitudes towards privacy and online commerce. Positivism has been criticised by other philosophical schools, and this will be discussed in the following sub section.

5.2.1.1 Criticism of positivist research

Interpretivists criticise positivism on the grounds that it is not suitable for understanding human actions (Doolin 1998). For example, in order to study users' satisfaction with information systems, and to gain a complete picture of information systems phenomena, influences in the social context, such as culture and politics, need to be taken into account. Otherwise, the picture of IS that is revealed may be incomplete (Orlikowski and Baroudi 1991).

In addition, one of the criteria of the positivist paradigm is repetition, where the outcome of the research should be results that are generalisable, regardless of the researcher and the occasion. This is achieved through working in a deductive manner that supports the discovery of the relationship between cause and effect, which is the basis of the generalisation of knowledge (Orlikowski and Baroudi 1991). This aim is not possible in social science research, where each researcher sees the world in a different way from other researchers, which means that the generalisability of results is not desirable in social research (Crossan 2003; Oates 2006).

Furthermore, under positivism, participants are not seen as active makers of reality because the researcher has adopted predefined measurements in order to test theories (Orlikowski and Baroudi 1991). In this regard, Parahoo criticised positivist research as follows:

> In physics it is possible to formulate laws relating to the expansion of metal when heated. From such laws, the amount of expansion that will

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occur in particular circumstances can be predicted. However, when a man loses his job and becomes depressed, it does not mean that he will be depressed each time he loses his job, nor can we say that everyone who loses his job becomes depressed. (Parahoo 1997) as cited in (Crossan 2003, p.51).

For the above reasons, this paradigm is not a suitable technique for the purposes of the present research study. This is because it does not provide a means with which to examine human behaviour in any depth and it does not provide sufficient understanding of the phenomena under investigation (Crossan 2003; Stahl 2007). Ultimately, this research is not aiming to prove or disprove a hypothesis or evaluate an existing theory, but to try to discover the impact of privacy regulations on the development of electronic commerce from the perspective of a range of actors (i.e. lawyers, consumers, and businesses). This means that it may not be possible to break the question down into simpler parts, in contrast with the reductivist approach of the positivist technique. To conclude, as the exploration of human behaviours such as feelings and attitudes are beyond the scope of positivism (Crossan 2003), positivism is not an appropriate method for this research.

5.2.2 Interpretivism

Interpretivism in IS research is concerned with understanding the social context of an information system (Oates 2006), where reality is a social product that is defined and constructed by people and is impossible to understand independently of social players (Oates 2006; Orlikowski and Baroudi 1991). This is a descriptive form of research, whereby the researcher aims to get information about what exists prior to formulating his hypotheses (Lehman 2002). This happens by understanding the meaning of human actions and provides contextual knowledge, through uncovering people's experience of particular events.

So, interpretivism does not look to prove or disprove a hypothesis, in the manner of positivism, but aims to look at how people see their world (Oates 2006; Orlikowski and Baroudi 1991), "[a]nd to explain why people act the way they do" (Gibbons 1987, p.3). It is directed at describing, translating, analysing, and otherwise inferring the meanings of events or phenomena occurring in the social world (Covaleski and Dirsmith 1990).

Constructivism is synonymous with interpretivism, constructivist, and interpretivist (Guba and Lincoln 1994). The primary aims of the constructivism paradigm "[…] are to understand the complex nature of people in their social-cultural context and to describe the meaning they associate with their experiences and actions" (Lehman 2002, p.85). Moreover, scientific knowledge is constructed by the researcher him/herself (Lehman 2002). In addition, the researcher has a significant role in learning more about the situation under study and is required to immerse himself in the study (Barnes et al. 2005). This aim could be attained through an inductive approach, in which previous hypotheses are not needed in order to begin the research (Barnes et al. 2005). Therefore, knowledge is conceptualised for a particular set of respondents at a particular time and place (Oates 2006). From a philosophical perspective, Oates argues that this knowledge of human meanings and experiences may be interpreted, but its meanings cannot be exhausted, due to the infinite number of stories that can be told. These interpretations can be achieved through nonnumeric data such as words, images, sounds and so on.

Unlike positivists, interpretivist researchers believe that there is no single version of truth, because "the same physical artefact, the same institution, or the same human action can have different meanings for different human subjects" (Morgan 1980; Orlikowski and Baroudi 1991). Also, whatever the reality, it can only be transmitted to

others by means of social constructions, in which the researcher has a significant role and will not be neutral (Oates 2006), as he is assumed to be in positivist research.

So, ontologically, a human being has a significant role in constructing and reconstructing reality and meanings, and the descriptions they give reveal how they construe phenomena within the social world inside their mind (Morgan 1980; Oates 2006; Orlikowski and Baroudi 1991). Therefore, epistemologically, the researcher's aim is to explore and study people and *how* they currently perceive their world without any influence from his previous expectations of the situation (Oates 2006).

This cannot be neutral and it can be achieved by a researcher immersing himself inside the world under investigation and using the language of participants to describe the social process (Orlikowski and Baroudi 1991). Oates (2006) argues that data will be rich and in–depth, not just numerical. Besides, the interpretive approach is complementary to the positivist one based on the fact that interpretivist researchers use the language and meanings of participants and interpret them from their own personal perspective (Orlikowski and Baroudi 1991). They add that an appropriate method to generate this knowledge is field studies, where the researcher aims to immerse him or herself in an in-depth process of examination. In this way, the researcher can aim to grasp the whole picture from the viewpoint of the participants.

5.2.2.1 Criticism of interpretivist research
Interpretive research has been criticized for a number of reasons, the first of which concerns the lack of generalisability of outcomes in similar situations. Positivists argue that approaches centred on phenomenological and critical foundations cannot achieve universality to the extent that positivist research can. They add that the researcher is

responsible for providing a sufficient description of the context of the sample to help other researchers to make a decision about whether the research findings may be applicable to their situation(Orlikowski and Baroudi 1991). At this point, interpretivists claim that the readers of the interpretations could generalise the outcomes to their own situations. Thus, it is the readers and audiences who are able to make generalisations rather than the researcher himself.

The second criticism of Interpretivism is that due to the role of the researcher in the research process, as active and with a significant role in the data collection process, he might affect the participants' viewpoints, and therefore the outcomes he finds will be tentative and uncertain (Orlikowski and Baroudi 1991). In addition, Interpretivism is said to neglect to explain historical change and how in particular a social order is redefined and varies over time (Orlikowski and Baroudi 1991). Positivists see interpretive research as impressionistic, anecdotal, unsystematic and biased (Oates 2006; Orlikowski and Baroudi 1991).

However, this approach could be used in this research because it is focuses on the understanding of society by the people who shape this society. Also one of the aims of this research is to investigate the other EC implementation hurdles and their influence on consumers' willingness to engage in dealings online. Another aim is to investigate why privacy constitutes an obstacle for electronic commerce, which may be achieved by speaking to people and experts who participate in electronic commerce activities.

5.2.3 Critical research
In contrast to positivist and interpretive approaches, critical research aims to critically evaluate the social reality under examination (Oates 2006; Orlikowski and Baroudi

1991). It is concerned with critiquing existing social systems and "disclosing relations, conflicts and contradictions, and empowering people to overcome them as sources of alienation and domination" (Oates 2006, p.279).

Critical researchers do not accept the *status quo* but try to critique existing traditions and free people from the "power relations" that shape this world. They believe that maximum outputs may be achieved through minimum inputs (Oates 2006). Their intention is "to change the social status quo, overcome injustice and alienation, and promote emancipation" (Stahl 2008, p.138). To summarise, critical research "focuses on what is wrong with world rather than what is right"(Walsham 2005, p.112).

Ontologically, critical researchers agree with interpretivists that reality is produced and reproduced by human beings; however, they believe that reality is historically constituted and that people can act to change the *status quo.* In this regard, they accept the fact that this transformation can be influenced by economic, political, and cultural factors, but the main aim of the critical researcher is to create awareness and understanding of social domination inside the society under investigation and to open up opportunities for people to act and overcome it (Orlikowski and Baroudi 1991). To achieve this, they concentrate on studying society in its totality, regardless of the elements that shape it (Orlikowski and Baroudi 1991). Therefore, critical research rejects projects that aim to increase managerial efficiency and control (Cecez-Kecmanovic 2001; Oates 2006). Thus, they reject the idea that technical solutions are the best approaches to social problems.

Epistemologically, critical researchers are convinced that knowledge is based on historical practice and no predefined measurements can conclusively prove or disprove

a theory (Orlikowski and Baroudi 1991). Alternatively, they believe that knowledge can be achieved through interpreting the discourse used in an investigated area. But they go further and argue that knowledge can also be achieved through critiquing existing conditions and power structures (Orlikowski and Baroudi 1991). Therefore, in practice, the critical researcher plays a significant role in the research process, because he wants to explore and understand the restrictive conditions of the status quo and to help to empower people to bring about a change in social relations and domination (Orlikowski and Baroudi 1991). Kvasny and Richardson (2006, p.201) emphasise that "critical research enables critical awareness of various forms of domination and control, and demands a radicalised view of power, developed with an emancipatory interest."

5.2.3.1 Criticism of critical research

Like positivism and interpretivism, critical research has its antagonists. They argue that knowledge from critical research is uncertain, because it has not been subjected to philosophical standards of evaluation (Chua 1986). Chua stressed that "Critical theorists do not share common philosophical standards for the evaluation of theories. What is acceptable theory or explanation is still debatable" (Chua 1986, p.626).

Furthermore, critical researchers have been criticised that their practice is not reflexive because they do not apply the critical research approach to their own practice (Orlikowski and Baroudi 1991). It has also been noted that critical researchers are not critical enough of their concepts and theoretical models, and they tend to be deterministic in their beliefs and assumptions (Orlikowski and Baroudi 1991).

However, critical research is not appropriate for this research; because critical researchers aim to change the social status quo, which is not consistent with the aims of

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this research where there is no interest in the challenging of power structure. This because the researcher is aiming to uncover and understand the impact of privacy regulations on the development of EC and, investigating the impact of other EC inhibitors on the privacy concerns among consumers; this guides the researcher to looking for a deep understanding rather than changing the status quo.

5.2.4 The Rationale of adopting interpretivisim for this research

Information system researchers use paradigms to explain how they see the social world in a particular way. Burrell and Morgan state "to be in a particular paradigm is to view the world in a particular way (Morgan 1980, p.24). According to this view, the researcher can be described as a positivist, interpretivist, or critical researcher. This happens due to the ontological, epistemological, and methodological assumptions that make everyone see the world in a different way from others.

However, concerning the current research, interpretive research will be used. The current research aims to investigate whether and why privacy constitutes an inhibitor for EC in Jordan and the UK, which is impossible to understand independently of the social players. This clarifies why interpretivisim is suitable to achieve this target rather than positivism, because the researcher is not going to prove or disprove a hypothesis but he is looking to present explanations of how people see their world. In addition, this research aims to investigate the other EC inhibitors and their influence on privacy concerns. This requires a deep understanding of this relationship rather than changing the status quo; which justifies why interpretivisim rather than critical research is appropriate for this study. Thus, the impact of privacy regulations on the development of EC will be investigated through examining the Jordanian and UK privacy regulations to explain how these regulations are ameliorating privacy concerns. This justifies why

interpretivisim not positivism will be utilised in this research, because interpretivism is able to present explanations of how consumers from the public and private sectors see these regulations and how it might encourage consumers to participate in EC activities in both Jordan and the UK.

Therefore, the next section will discuss the research methods that the interpretivist researcher can apply to reach to the social reality he investigates. It is important for each researcher to determine in advance his view about the existence of reality, and whether this is objective or subjective. Having done so, he can then choose a suitable method to explore this reality. A significant role in determining the method chosen is played by the nature of the aims of the research itself.

5.3   Research methods

As discussed in the previous section, a researcher has firstly to determine his philosophical assumptions, which helps him move from the underlying philosophical assumptions to studying how he knows things. Thus, the choice of research method influences the way in which the researcher collects data. Therefore, this section will discuss the appropriate research methods that enable the researcher to obtain the required knowledge.

The term "*method*" has several meanings, but the most abstract one is that it means "*epistemology*" or "*the study of how we know things*" (Bernard 2006, p.3). So, as McNeil and Chapman (2005) argue, to study any aspect of the world, the researcher has to determine which method is going to be used in the research. His decision will be influenced by the kind of things he is studying, for example the natural world or human subjects. This research is going to investigate the impact of privacy regulations on the

development of electronic commerce, and this will be conducted by investigating the reasons why privacy can constitute an obstacle for electronic commerce, and by reviewing national and international regulations concerning privacy. It will also investigate other EC implementation hurdles and their influence on individuals' willingness to provide their personal information online. Therefore, to achieve that, an appropriate research method has to be chosen to address the proposed research questions in the current research.

Regarding research methods, there are several methods that can be used for the research process and to answer research questions. However, there is no method more appropriate than others for all research purposes (Benbasat et al. 1987). These authors stressed that the only reason for the researcher to prefer one method over the others would be the goals and nature of the research.

The methods commonly applied within social research are the design and creation, the survey, the case study, experiments, ethnography, action research and grounded theory (Denscombe 2003; Oates 2006). However, this section is not going to discuss all these methods because some of them are associated with the underlying philosophical assumptions in this research while others are not.

The interpretive design and creation method involves the development of the IT product as an artefact (Oates 2006), and this is not applicable to the current research's goals and objectives and therefore it will be dismissed.

Thus, interpretive experiment is not an appropriate method to achieve the aims of the current research. This is attributed to the fact that an experiment aims to investigate the relationship between the cause and effect and prove or disprove a causal link between

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variables and hypothesis (Kaplan and Duchon 1988). The current research deals with a social phenomenon, and the social systems involve many uncontrolled or unidentified variables (Kaplan and Duchon 1988) due to the different groups that will participate in this research from the government, businesses and consumers perspectives.

Finally, interpretive survey research aims to suggest a general association between cause and effect and to establish generalisation usually relying on the positivist paradigm (Oates 2006). Therefore, the survey as a research method will not be used for this project, because the impersonality of the survey could decrease the keenness of those surveyed to respond to the questions and might also lead them to give answers that do not express their real beliefs (Lundberg and Young 2005; Robson 2002). This contrasts with the aims of this research where understanding the phenomena in more depth and detail through the responses of the respondents is desired (Pinsonneault and Kraemer 1993). Furthermore, survey participants are not seen as active makers of reality, because the researcher has adopted predefined measurements in order to test theories (Orlikowski and Baroudi 1991).

So, the main research methods that will be discussed in this section, are associated with interpretivism and can address the proposed research questions in this research are: case study, ethnography, action research and grounded theory.

5.3.1 Case study
A case study can be connected with positivist, interpretive and critical research paradigms (Oates 2006). Case study research can be found in interpretive research, where the researcher seeks to explore how different people perceive their world, and

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when the researcher aims to gain a detailed understanding in greater depth (Creswell 2007; Khairul 2008).

The case study is a "qualitative approach in which the investigator explores a bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information, and reports of case descriptions and case based themes" (Creswell 2007, p.73).

The case study as a method aims to obtain the same sort of data from a large group of people or events over time (Oates 2006). It is an empirical inquiry that aims to explore a phenomenon within its real life context over time (Creswell 2007; Khairul 2008). Yin (1994) defines a case study as:

> An empirical inquiry that investigates a contemporary phenomenon within its real life context; when the boundaries between phenomena and the context are not clearly evident, and in which multiple sources of evidence are used. It is particularly valuable in answering who, why and how questions (Yin 1994, p.23).

The case study can be classified, according to the number of cases, into a single or multiple case studies. In the single, individual, case study the researcher seeks from the outcome results that can be generalised to a larger population than the selected sample. In this case, the researcher is usually focused on just the one instance to be investigated in the research (Denscombe 2003) and studies it in depth, using multiple sources of information: interviews, observation, documents and questionnaires (Creswell 2007; Oates 2006). On the other hand, the research can select several case studies to investigate, not exceeding four or five cases in total (Creswell 2007).

Using the case study in the research process has numerous advantages and disadvantages. Regarding its advantages, one of these is its suitability for both theory

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building and theory testing (Oates 2006). The second advantage of using the case study is its closeness to people's experiences (Oates 2006). However, the case study also has several drawbacks, including the generalisability issue (Creswell 2007; Oates 2006) and the potential for the presence of the researcher to affect people's behaviour (Oates 2006).

Finally, case study seems to be appropriate to achieve the aims of the current research through the possibility of getting a deep understanding of the phenomenon under investigation. But case study will not be used in this research for numerous reasons. It is found unsuitable for the reason that it has encountered criticism of its lack of rigour and reliability, which leads to generalisation with poor credibility (Denscombe 2003; Khairul 2008; Oates 2006). This is attributed to the fact that in using case study there are no set rules to follow and the researcher cannot know in advance whether he is naturally any good at it (Oates 2006). So, it is better to find another research method that achieves the same objectives of case study through presenting a deep understanding of the phenomenon under investigation, and at the same time presents a solution that reduces rigour and credibility criticisms.

5.3.2 Ethnography
Ethnography as a method is based on interpretive and critical research approaches, which aims to investigate one instance (organisation, department and group of people), and to find out more information about the character of that case. In other words it is a description of a group of people or a culture (Creswell 2007; Denscombe 2003; Feterman 2010; Oates 2006). The ethnographer aims to understand events and actions as the people within the culture researched have seen and understood them (Fairhurst and Good 1991). Ethnographic research as a research method usually, depends on four

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types of data collection: participant observation, interview, questionnaire, and document analysis (Hammersley 1998)

Ethnography aims to understand a culture and the ways of thinking of a particular group of people (Oates 2006). There are three objectives for the ethnographer: to link between theory and practice, to use his/her own knowledge to develop an understanding of people, and to learn about the environment (Fairhurst and Good 1991). Another benefit of adopting ethnographic research is that it can put the researcher on the path to becoming a critical thinker. For that reason, the main advantage of ethnography is to give a detailed picture of the situation under investigation, a result which will come from studying the natural setting and the people studied (Oates 2006).

However this research method is not going to be used in this research, because the researcher does not have access to any of the public and private bodies and he is not a member of any EC programmes in Jordan. In addition, as mentioned above, ethnography aims to understand a culture and the ways of thinking of a particular group of people, and this is not possible in the current research because other economical, technical and organisational factors will be investigated in the current research. So, ethnography might be suitable for some, but not all, proposed objectives in the current research.

5.3.3 Action research

Action research is another research method which can be based on the three research paradigms: positivist, interpretive and critical (Oates 2006). It can be performed through testing, exploring, or challenging a real-life situation. Action research is concerned with change and practice at the same time (Baburoglu and Ravn 1992). "It is used by

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researchers who want to investigate and improve their own working practices" (Oates 2006, p.254).

Thus, the truth is revealed through practical outcomes (Baskerville and Myres 2004). Action research requires the researcher to be working with participants in teams or as part of a community and immerse him/herself in the research field work. For that reason, theorising in action research is collaborative between the action researcher and the participants (Baskerville and Myres 2004).

Furthermore, it is an iterative process which operates through discovering the results of the first trial and then beginning another cycle of planning-action-reflection (Avison et al. 1999; Oates 2006). Therefore, action research unites practice and theory (Avison et al. 1999). This is because the outcomes may be related to actions, through practical achievements; and to research, through learning about the process in order to change the situation (Avison et al. 1999; Oates 2006). However, action research "does not explain very much, but provides a method to help explain why things do/not work (Baskerville and Myres 2004, p.331).

When considering the aims of this research against the basic requirements of action research, it is clear that action research is not suitable to achieve them. This is because action research requires the researcher to conduct his/her study within the setting where the problem has arisen (Baskerville and Myres 2004), and the researcher is not active in any of the regulatory or implementation settings for e-commerce either in Jordan or the UK, which makes this method awkward an approach for this research.

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5.3.4 Grounded theory

Grounded theory as a method is linked with interpretive and critical paradigms (Annells 1996), where the researcher immerses him/her-self in the world of those people under study and observes the participants' environment and the interactions and interpretations that occur within it (Goulding 1999).

Furthermore, grounded theory is embedded in symbolic interactionism, according to which meanings emerge from one's actions and communications (Byrne 2001b), and it is particular to a qualitative research approach (Oates 2006). Grounded theory "looks systematically at qualitative data aiming at the generation of the theory that accounts for a pattern of behaviour that is relevant and problematic for those involved" (Tavakol et al. 2006, p.2). They add that grounded theory aims to focus on and explore how people define events and how they behave based on their beliefs. This is because data collection and analysis procedures help the researcher to capture all relevant aspects of the topic under investigation (Glaser and Strauss 1967; Strauss and Corbin 1990). Glaser and Strauss (1967) argue the value of discovering the theory through generating the conceptual categories and/or their properties from data (evidence). Gathering evidence is performed through applying a technique called *theoretical sampling* − see sub-section 6.2.2. This technique guides the researcher who gets the initial data as to what kind of data he/she should collect next and where to find it.

Grounded theory seems to be the most suitable method from all the above research methods to achieve the aims of the current research. In the socio-technical domain a new methodological must be adopted (Fernandez and Lehmann 2005). They proposed "a [new] methodological alternative: grounded theory building research, where the emerging theory helps explain, in conceptual terms, what is going on in the substantive

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field of research" (Fernandez and Lehmann 2005, p.80). This is because grounded theory is capable of accommodating social issues and is appropriate for socially constructed experiences (Charmaz 2003; Glaser and Strauss 1967; Goulding 1998) due to its capacity to interpret complex phenomena (Charmaz 2003). More justification for choosing grounded theory will be discussed in the following subsection.

5.3.5 The Rationale of adopting grounded theory for this research

Numerous research strategies are designed to assist the researcher to unearth the reality he seeks. The appropriate research method depends on the proposed research questions and the aims that the researcher seeks to achieve. In the current research grounded theory has been utilised as a research method for several reasons.

First of all, this research is of an interpretive nature, which means that the use of grounded theory with such research is possible. This is because the ontological and epistemological assumptions adopted in the current research accept that knowledge is always emerging and transforming, and is interpreted by both researcher and participants.

In addition, GT is an important method for studying topics of a social nature (Jones and Alony 2011). Besides, using grounded theory in comparative studies is workable, because the ability to achieve the generalisation of fact is possible (Glaser and Strauss 1967). The current research will be a comparative study between Jordan and the UK with the aim of investigating the impact of privacy regulations on electronic commerce. Glaser and Strauss (1967, p.23) stress that using a comparative study is a useful way of checking that initial evidence is accurate; another way of knowing *"is the fact a fact?"* Furthermore, the above justification is strengthened when a second reason is considered.

A comparative study is suitable for achieving "*the generalisation of a fact"*(Glaser and Strauss 1967, p.24), and this can be achieved through generating a theory from a comparative study where the researcher aims to generate "*a theory that accounts for much of the relevant behaviour"*(Glaser and Strauss 1967, p.30).

Thus, grounded theory is different from other research methods; particularly case study, because it contains systematic inductive techniques for collecting and analysing data, which assist the researcher to generate a theory that explains the collected data (Charmaz 2006). This is because the grounded theory method contains systematic inductive guidelines for collecting and analysing data to build theoretical frameworks that explain the collected data (Glaser and Strauss 1967). This systematic approach is useful in providing rigorous insight into areas that are relatively unknown by the researcher (Jones and Alony 2011). Finally, as will be discussed in sub-sections 5.5.1 and 6.3, the Straussian grounded theory approach will be applied to achieve the study aims.

To conclude, when the researcher chooses the appropriate research method to be applied in his research, he must also choose the appropriate data collection method/s that will help him to reach the reality and knowledge he is pursuing. Furthermore, choosing one or more types of data collection methods depends on the chosen research method (Pinsonneault and Kraemer 1993), so the following section will discuss the appropriate data collection methods that are workable with grounded theory.

5.4 Data collection methods
To achieve the aims of each of the research methods discussed in the previous section, the researcher should use a data generation method appropriate to those aims in his

research. As discussed above, grounded theory will be utilised as a research method in the current research, which raises the need to determine which sources of data are the most suitable to use with it. Corbin and Strauss (1990) state that the data for grounded theory come from various sources and involve interviews, observation and documents. Therefore, observation, interviews and document analysis will be discussed.

5.4.1 Observation

This is a method of "watching" and "paying attention to" and then recording events, activities, and conditions (Oates 2006; Walliman 2006). The role of the researcher with this method is to look rather than to ask. Nicholas Walliman (2006) argues that people might reveal their experience of the phenomena under investigation better by their actions rather than in speech.

This method can be used to gather both quantitative and qualitative data (Walliman 2006). Buford Junker has classified the observation role into the complete observer, the observer-as-participant, the participant-as-observer, and the complete participant (Gold 1958, p.219). The observer might observe his participants not through the visual sense alone, but also by smelling, touching and hearing (Oates 2006; Walliman 2006).

This method is not going to be adopted as a main source of data in the current research study both due to the time consumed by such methods and difficulty when the activity is not constant (Walliman 2006). Also, bearing in mind for example, that one of the aims of this research is to investigate the other EC implementation drawbacks and their influence on individuals' willingness to provide their personal information online, which calls for an in-depth exploration of the respondents' experience and observation, this method cannot provide an rich enough feedback to provide the researcher with

sufficient understanding about the phenomenon under investigation. Clearly it would be difficult to explore these dimensions using an observational method, due to the obstacles to being present with consumers while they make their purchases (Oates 2006; Walliman 2006). However, the researcher will not completely dismiss this source of data and will use it where possible.

5.4.1 Documents

Documents are known as "available or existing data" and the documents collected might be personal, official, physical or archived (Johnson and Turner 2003). The main reason for using documents as a source of data is the simplicity of access to this kind of data through libraries or websites with low cost (Oates 2006). In addition, documentary data can be gathered quickly and cheaply (Johnson and Turner 2003; Oates 2006). However, the drawback of using documents as a source of data is the question of the credibility of their origins (Johnson and Turner 2003), and they could also potentially give an inaccurate perspective on the situation under investigation (Oates 2006).

Concerning the aims of this research, the researcher will use official documents provided by the public and private sectors as a primary source of data – sub-section 5.5.4 - to investigate the impacts of privacy regulations on electronic commerce privacy concerns. This is because technical and non-technical literature play a significant role in GT studies, because it could be used as primary data (Strauss and Corbin 1998, p.58)

5.4.2 Interview

The interview is a type of conversation between two or more parties, where the interviewer depends on the respondent's willingness to answer the questions in order to acquire information from the interviewee about a particular topic (Keats 2000; Oates 2006).

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There are three types of interviews: structured, semi-structured, and unstructured interviews (Denscombe 2003; Oates 2006). Structured interviews, according to Denscombe (2003, p.61) tend to seem "like [a] questionnaire." In such cases, the researcher asks a set of predetermined questions with predetermined answer options and the respondent answers, and the researcher writes down the answers (Oates 2006). The second type is the semi-structured interview. This is where there is a list of questions, as in the structured type, but the difference here is that the researcher has the option of changing the order of questions according to the flow of conversation, and the interviewee has the opportunity to speak in more detail (Denscombe 2003). The last type is the unstructured type, where the researcher introduces the topic and invites the interviewee expand his/her thoughts on it (Oates 2006).

Interviews can be undertaken with an individual or a group (for example, in the form of a focus group); however, the latter can be problematic in spite of its efficiency. This is because, depending on the experience of group members and cultural norms, some informants might dominate the discussion at the expense of others, due to many issues such as conventional gender roles and expectations, making it difficult for the researcher to gain an understanding of the perspectives of all group members (Denscombe 2003). For this reason and taking into consideration privacy issues, for example, where some members have a different opinion from others, but prefer to keep it quiet (Denscombe 2003), the researcher prefers to conduct interviews on a one-to-one basis.

For the purposes of this research, the interview, particularly the semi-structured interview, is a suitable data collection technique, for a number of reasons. An interview

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is an appropriate research method to use with grounded theory. This is because grounded theory aims to gather in-depth data about the area under investigation from the respondents' perspective, to explore how people define events and how they behave based on their beliefs.

Furthermore, the aim of this research is to investigate the impact of privacy regulations on the development of electronic commerce, which could be achieved by meeting experts in the electronic commerce field and recording accounts of their experience. This is best achieved by interviewing them rather than through other techniques, such as questionnaires or observation.

Moreover, as the nature of an experience, its feelings and emotions, would be impossible to report in one or two words, it is better to give the interviewees the opportunity to express themselves verbally, as they might lack sufficient commitment to the study's goals to want to write down their answers themselves (Denscombe 2003). Also, where the interview is used as tool for collecting the data, this could help the interviewer to determine if the respondent is an appropriate person with whom to discuss issues related to the research objectives (Allan 2003).

Regarding this research, respondents from Jordan and the UK could include representatives of the public and private sectors, decision-makers − who might consist of government employees with experience of regulations concerning privacy and electronic commerce, representatives of the Chamber of Commerce, legal experts, companies − and consumers. The interviews are expected to be a good way to deal with the topic under investigation in more detail, and also to provide a suitable way to check

if the informant is the right person to be answering the questions, by giving them the opportunity to talk about their experience.

However, using an interview as a tool for collecting data can be criticised, on the one hand, for its lack of rigour, based on the risk of researcher-led bias. This risk could be minimised in the transcription of the collected data and checking it for context and content accuracy before starting the analysis process (Allan 2003). On the other hand, the interviews as a data collection method could produce misleading information, and this can be moderated by the role of the interviewer during the interview (Oates 2006).

5.4.3 Summary

Choosing an appropriate research method and data collection method depends on how the researcher sees social reality. The aims of the research play a significant role in determining this attitude. In the current research, it is clear that the interview as a primary data collection method is the most suitable to gather the data which works with the chosen research method; i.e. grounded theory. This data collection method is able to provide the researcher with a deep understanding of the phenomenon under investigation in this research, based on the underlying philosophical assumptions; i.e. interpretative research. However, the following section will summarise the method and methodology that will be in the current research.

5.5   Research process in this project

To achieve the aims of this research as addressed in 1.2 an "***Interpretive Straussian Grounded Theory***", using semi structured interviews as a data collection method approach will be utilised and a further justification for this is given next. In addition, this section will discuss ethical issues, interview protocol, and how the research respondents from both Jordan and UK have been selected.

5.5.1 Justification for the selected research methods and methodology with regards to the research questions

The aim of this research is to understand and explore the reasons *why* privacy constitutes an obstacle for the development of electronic commerce in Jordan and to explore other factors that influence EC and how they influence consumers' willingness to provide their personal information and purchase online. Therefore, this research will be interpretive in its nature. This is because many scholars apply an interpretive research in IS area, such as Klein and Myers (1999), Orlikowski and Baroudi (1991), Koch and Schultze (2011) and Khoo et al. (2011).

Therefore, since the aims of the research are to explore how other factors influencing EC influence individuals' willingness to provide their personal information online and, investigate the impact of privacy regulations on the development of electronic commerce in Jordan and the UK, this can be achieved by the researcher immersing himself in the world under investigation and using the language of the participants. Using interpretivism will help the researcher to explore how respondents see privacy issues and how these can constitute an obstacle that prevents consumers from participating online (Oates 2006; Orlikowski and Baroudi 1991). This is achieved through exploring how people see their world and why they act the way they do (Orlikowski and Baroudi 1991).

In addition, this research aims to investigate the reasons why privacy constitutes an obstacle for the implementation of electronic commerce. It will be appropriate to use interpretivism to achieve this aim. This is because this reality is defined and constructed by people and it cannot be understood independently of social players (Orlikowski and Baroudi 1991). While constituting an obstacle for some a arange of consumers, privacy

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might not be important for another group of people. Therefore it is important to study the different ideas of different people in different cultures to discover how each group sees the problem from their own perspective.

For the purposes of data collection and analysis, grounded theory will be used and applied to data gathered from the primary source of semi-structured interview data, with the ability to use documents as a primary source of data. Grounded theory will be used in this research for several reasons. The research will be a comparative study between Jordan and the UK with the aim of investigating the impact of privacy regulations on electronic commerce. Glaser and Strauss (1967, p.23) stress that using a comparative study is a useful way of checking that initial evidence is accurate. Furthermore, a comparative study is suitable for achieving the generalisation of a fact (Glaser and Strauss 1967, p.24).

In this research the Straussian approach, as will be discussed in section 6.3, will be applied to achieve the study aims. Heath and Cowley (2004, p.124) state: "It is focused on developing the analytic techniques and providing guidance to novice researchers". Furthermore, it is not easy for a researcher to enter this research without surveying the literature, as Glaser stressed. In particular, electronic commerce is a new phenomenon that the researcher has not dealt with before, and he would need to review the literature to help him to know where he should begin, as Strauss and Corbin emphasised. Therefore, Straussian procedures will be further discussed below. The diagram below explains the procedures that may be followed when adopting the Straussian approach.
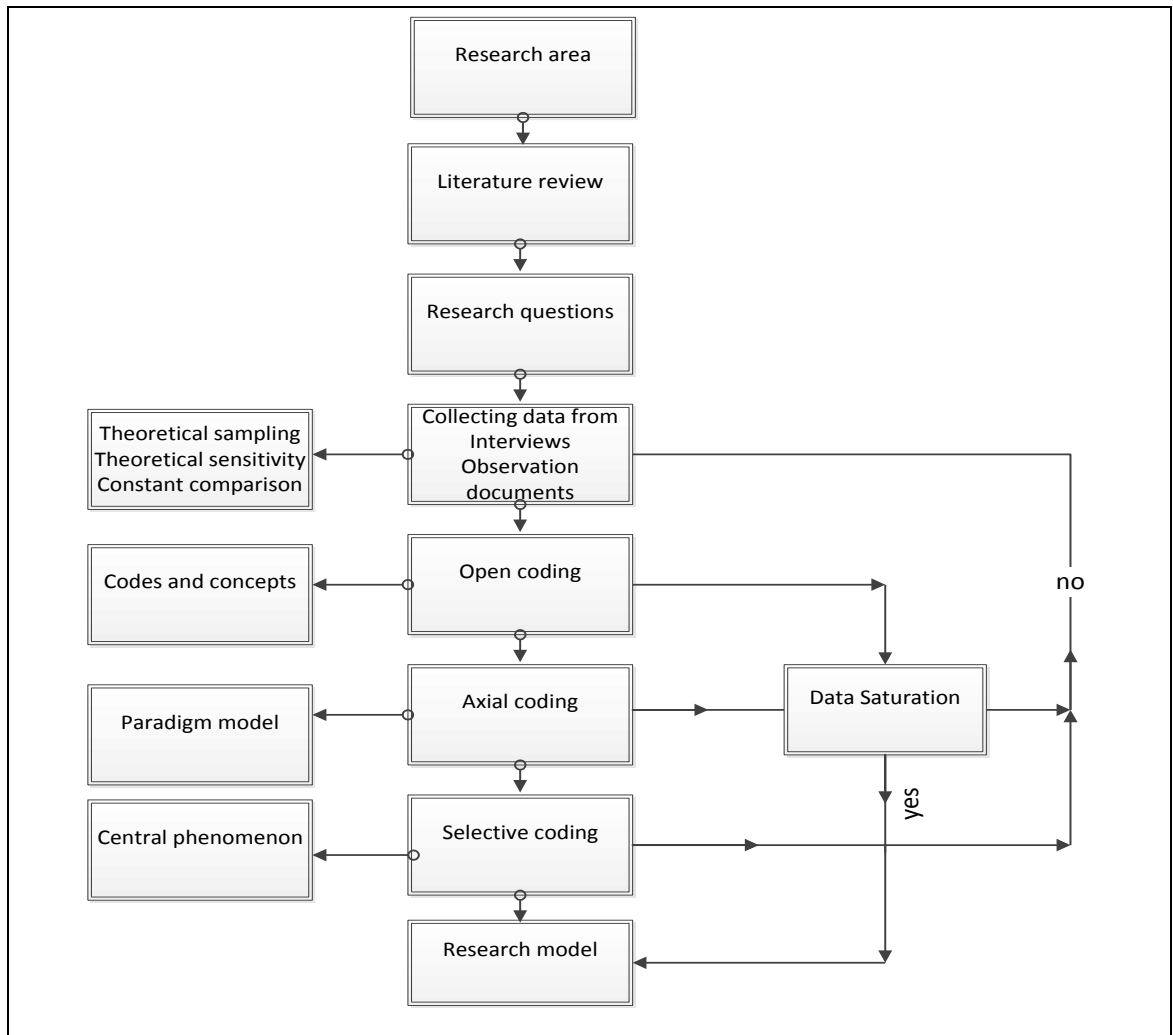
Figure 5-1: Straussian Approach Procedures.

This diagram gives a guideline for researchers intending to apply the Straussian grounded theory approach in their research. It begins by determining the research area that will be investigated, accompanied by revising the literature review and determining the research questions that are being investigated. After this happens, the empirical research will be started and the procedures drawn from Strauss and Corbin will be applied to integrate the theory that explains what is going on in the area under investigation; these techniques will be discussed in greater depth in the next chapter.

However, as clarified by the above diagram, the constant comparison method is the main technique in the data analysis process. This is because this method gives the

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researcher the ability to compare events and incidents with others, which contribute to the development of theory (Urquhart et al. 2010). Thus, as discussed in the following chapters, the constant comparison method enables the researcher to implement theoretical coding that increases the level of abstraction through understanding the relationships between the concepts or factors of a theory. In this respect, theoretical sampling will be used to ensure the comprehensive nature of the theory and emphasis that the development of theory is grounded in the data. As Urquhart et al (2010) stresses this helps the researcher to scale up his theory and achieve the desired level of abstraction by coding around one or two core categories or themes. Finally, when a substantive theory emerges it equips the researcher with the capability to compare this emerged theory with the other theories from the same or similar field (Urquhart et al. 2010).

Finally, people who participate in this research should be confident and feel that their participation in the research will be confidential and that the data they provide will be protected and kept secret. This raises the ethical issues which will be discussed in the following sub-section.

5.5.2 Ethical issues

Before collecting the data, the researcher needs to conduct some procedures to be confident about the success of the research process in a number of dimensions. One of these procedures concerns the protection of the human subjects being investigated in the research. Human beings being investigated have the right to be protected during and after the interview (Byrne 2001a). People have the right to "self-determination, confidentiality, privacy, anonymity, and protection from discomfort and harm" (Byrne 2001a, p.401).

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De Montfort University regulations require formal approval for each research student if he/she is engaged in research activities that require the gathering of information from and/or about individual human beings and organisations through interviews. This approval is called an "*ethical approval*". The author of this thesis gained ethical approval for this research from the human research ethics committee (enclosed in appendix B).

The 2010 code of practice for research degree students[50], particularly Section 4, presents the principles that should be observed. The first one declares that the participant should not be harmed due to his/her participation, and each of the participants should be aware that they have the opportunity to refuse to participate in this research. They must also be informed about the purposes and nature of this research. The participants were fully informed before conducting the interview and were accordingly asked to sign the consent form (enclosed in Appendix C). This consent form includes the following contents, according to Byrne (2001a, p.402).

- Introduction of research activities.
- Statement of research purpose.
- Selection of research subjects.
- Explanation of procedures.
- Description of risks and discomforts.
- Description of benefits.
- Disclosure of alternatives.
- Assurance of anonymity or confidentiality.
- Offer to answer questions.
- Non-coercive disclaimer.
- Option to withdraw, and
- Consent to incomplete disclosure.

To achieve the spirit of the ethical guidelines, the researcher tried to be honest with the participants about everything that they raised. Furthermore the researcher did not

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[50] Available at: http://www.dmu.ac.uk/documents/research-documents/graduate-school/current-students/code-of-practice/codeofpractice2010final.pdf

intrude on the participants' private lives through his questions. Finally, the researcher promised the participants that he would keep the interview data secure and confidential, and would keep their identity anonymous as well.

5.5.3 Interview protocol

Another procedure that was be undertaken to guarantee the success of the research process is producing the interview protocol. Explanations of its objectives, procedures, and some of the structured data discussed with interviewees are given below. (For more explanation see appendix D).

Interview protocol

This guidance includes a plan for the outline, format, and audience. Prior to conducting the interviews, the researcher will contact the participants and agree with them a date and time for the interview. Data will be collected through semi-structured interviews − as mentioned above − with interviewees who have been informed about the purpose of the research and have given their informed consent to participate prior to the interviews. The consent form will also clearly state the interviewees' rights regarding their confidentiality and privacy through the use of pseudonyms in the reporting of the research.

In addition, the researcher will ask the interviewees for their permission to record the interviews on a digital recorder and will respect their decision. In the case that interviewees do not wish to be digitally recorded, the interviewer will record their answers from memory after the conclusion of the interview.

In Jordan, the interviews were conducted in two cycles. The first cycle was conducted between 09/2009 and 10/2009, and the second cycle from 07/2010 to 09/2010. The UK interviews were conducted in one cycle from 03/2011 to 05/2011. When the researcher arrived in Jordan interviewees were contacted again and reminded about the date and time agreed upon for the interview. Before each interview, the researcher gave the

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participant a summary of the aims of the research and then gave them a consent form confirming that they have given their permission to be interviewed. They read and signed the form to show that they accepted its contents.

Concerning the interviews conducted in Jordan, all were conducted in Arabic, the interviewees' first language, and conducted individually. All of the interviews were recorded on a digital MP3 recorder except one, where the participant refused to have her voice recorded. In this case, the interview proceeded as normal except that immediately after it had finished the interviewer made a note of his memory of her answers.

The next step after interviewing the participant was the transcription of the content of the recording from audio into text form. The time for transcription varied depending on the duration of each interview. For example, a 30 minute long interview takes around three hours to transcribe.

Also, the same techniques applied to the interviews conducted in the UK, where the interviews were conducted in the English Language.

5.5.4 Jordanian and UK respondents

As mentioned above, this research stages a comparison between two different countries and cultures. Furthermore, the aim of this research is to investigate the impact of privacy regulations on the development of e-commerce, emphasising the existing regulations in Jordan and the UK. Each of the participants was included in the study for a particular reason, connected with their role and knowledge, as justified below.

Prior to this explanation, it should be noted that literature plays a significant role in research that applies GT as a research method, because it can be used as a source of data (Strauss and Corbin 1998, p.55). Non-technical literature will be drawn upon for this

research. For example, the Jordanian National Strategy for Electronic Commerce will be used as a primary data source. This strategy - as depicted in table 4-2 and presented in figure 2-1 - specified the enabling actions that need to be undertaken to create an appropriate atmosphere for conducting electronic commerce activities in Jordan. The reason for choosing this national strategy is attributed to the fact that this strategy has determined all inhibitors that influence EC implementation in Jordan. This guides the researcher to depend on this strategy in choosing the required sample from consumers, both public and private sectors, because one of the research aims is to investigate the other EC inhibitors and their influence on privacy concerns. So, this was the basis of selecting people to be interviewed in Jordan and the UK sample.

The researcher will meet different people from the three main stakeholders, i.e. the consumers, the private sector and the public sector. This means that some questions asked of consumers will be different from those asked of the private and public sector representatives and vice versa (as clarified in appendix D). In addition, this sample could not represent the whole of the Jordanian population's points of view. This is due, in particular, to the presence of multi-nationals who now live in Jordan and the political instability of the Arab countries. These factors will be discussed later in the current research. In addition, the size of the sample in the UK is small compared to the size of the sample involved in quantitative research, which raises the issue of generalisability and representation of the whole population. Thus, the opinions of respondents are presented in this research without testing their qualifications to express those opinions.

The enabling actions, as mentioned in the National Strategy, are listed below, alongside the related experts included in the sample to cover each issue.

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- The law (including tax and custom matters): the factors relating to the laws and regulations that should be enacted to arrange all matters that promote using e-commerce. As this research aims to investigate the impact of regulations, particularly privacy and electronic commerce regulations, on the development of electronic commerce, it is very important to speak to policy makers and legal experts in the electronic commerce sector. In Jordan, the researcher met lawyers who have experience in the field of electronic commerce. One of them has a degree in e-commerce and the second is a practising lawyer and has experience in e-commerce issues.

In addition, to cover all perspectives, the interviewee sample included people who are responsible for enacting laws and regulations at their initial stages. The researcher met the ex-director and the current director of electronic commerce programme in the government, particularly in the Ministry of Industry and Trade. This department is responsible for the e-commerce project in partnership with the Ministry of Information and Communications Technology and the Ministry of Justice. Therefore, members from these ministries have been interviewed for the purposes of this research. In the UK, the literature has been chosen as a primary source for the data. The researcher has chosen the literature because using theoretical sampling in the data collection process from respondents did not guide the researcher to speak to legal experts in this field.

- Security, electronic payments: this dimension is related to the actions that should be undertaken in the field of security issues and electronic payment facilities. With regard to this sector, in Jordan, two experts from the Ministry of Information and Communications Technology, the originating department for the

National Strategy of Electronic Commerce, were interviewed about security and privacy issues.

In addition, three company representatives were interviewed to talk about their experience with e-commerce security and its impact on consumer willingness to buy from their website, and it is impact on encouraging consuemrs to provide their personal information to a faceless seller. In the UK, by contrast, using theoretical sampling in the data collection process from respondents did not guide the researcher to speak to legal experts in this field.

- Awareness and skills among Jordanian companies: regarding this dimension, and in addition to the above experts who talked about their role with regard to awareness issues, the researcher interviewed one expert from the Jordanian private sector, specifically from the *Amman Chamber of Commerce,* which gathers all companies under its umbrella, to talk about factors that electronic commerce companies in Jordan encounter, and about the role of awareness for both companies and consumers in encouraging e-commerce activities in Jordan.

- Consumers' Attitudes. This research aims to study why privacy constitutes an obstacle for electronic commerce, and to investigate the impact of other EC hurdles on the consumers' willingness to provide their personal information online. Thus, the researcher has interviewed different kinds of consumers in Jordan and the UK, as will be seen in the following table, to speak about their attitudes towards adopting the new technology in their daily practices, which is using technology to purchase and sell through the internet.

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The table below summarises the sources of data that were used in this research and contains participants from Jordan and the UK.

Interviewee	Gender	Age	Characteristics	Country
Respondent 1 (**R1**)	M	30s	Engineer, consumer	Jordan
Respondent 2 (**R2**)	M	20s	Graduate, consumer	Jordan
Respondent 3 (**R3**)	F	20s	Graduate, consumer	Jordan
Respondent 4 (**R4**)	F	20s	Graduate, consumer	Jordan
Respondent 5 (**R5**)	M	40s	Legal expert	Jordan
Respondent 6 (**R6**)	M	30s	EG programme expert at ministry of ICT	Jordan
Respondent 7 (**R7**)	M	40s	Director of EC strategy in the ministry of Trade and Industry	Jordan
Respondent 8 (**R8**)	M	40s	Ministry of Justice representative	Jordan
Respondent 9 (**R9**)	F	30s	EC company's representative	Jordan
Respondent 10 (**R10**)	F	30s	Director at the ministry of ICT	Jordan
Respondent 11 (**R11**)	M	50s	Ex Director of EC strategy in the ministry of Trade and Industry	Jordan
Respondent 12 (**R12**)	M	40s	Director in Amman Chamber of Commerce	Jordanv
Respondent 13 (**R13**)	M	30s	Director at the ministry of ICT	Jordan
Respondent 14 (**R14**)	F	30s	An EC company' representative	Jordan
Respondent 15 (**R15**)	M	30s	Legal expert	Jordan
Respondent 16 (**R16**)	M	30s	Employee at EC programme in the ministry of Industry and Trade	Jordan
Respondent 17 (**R17**)	M	60s	Elder consumer	UK
Respondent 18 (**R18**)	M	20s	Student consumer	UK
Respondent 19 (**R19**)	M	20s	Student consumer	UK
Respondent 20 (**R20**)	M	60s	Elder consumer	UK
Respondent 21 (**R21**)	F	30s	Young employee, consumer	UK
Respondent 22 (**R22**)	M	40s	Young consumer	UK
Respondent 23 (**R23**)	M	40s	Young employee	UK
Respondent 24 (**R24**)	F	30s	Employee consumer	UK

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Respondent 25 (**R25**)	F	40s	Young consumer		UK
Respondent 26 (**R26**)	F	20s	Young consumer		UK
Respondent 27 (**R27**)	M	30s	Young consumer		UK
Respondent 28 (**R28**)	F	40s	Young consumer		UK
Respondent 29 (**R29**)	M	60s	Elder consumer		UK
Respondent 30 (**R30**)	F	40s	Young consumer		UK
Respondent 31 (**R31**)	F	20s	Young consumer		UK
Respondent 32 (**R32**)	M	30s	Young consumer		UK

Table 5-1: The Source of Data from Jordan and UK.

From the table above, it is clear to what extent the data sources collected from Jordan and the UK diverged. The main reason for this can be attributed to the use of theoretical sampling as a data collection technique, as the Glaser and Strauss method ideally promotes. According to Tavakol and colleagues (2006) Glaser argues that theoretical sampling differs from purposive and selective sampling due to the fact that with purposive or selective methods, the researcher chooses respondents at the beginning of the research process because the research questions determine who is of interest for the research. But, in the theoretical sampling method the respondents are chosen in the course of the research process, and it is for this reason that divergence between the two samples emerged. The size of sample in this research might be small compared with quantitative research where it is large. This is because quantitative studies aim to generalise its findings, while this study conducts a GT method, which aims to present an explanation and understanding for the phenomenon under investigation rather than a generalisation. The use of a theoretical saturation technique led to a small size sample, particularly, considering that 92% of total number of codes developed after twelve interviews (Guest et al. 2006).

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5.6 Conclusion

This chapter has discussed the philosophical paradigms, positivism, interpretivism and critical studies; that information systems researches use. In addition, research methods and data collection instruments have been clarified in this chapter.

To sum up, regarding the aim of this research to investigate the impact of privacy regulations on the development of electronic commerce in Jordan, the researcher supports the idea that reality is a social product that is defined and constructed by people and impossible to understand independently of social players (Oates 2006; Orlikowski and Baroudi 1991). It follows from these two positions that the interpretivism stance will be the most suitable approach for understanding the impact of regulations on the development of electronic commerce in this research. To achieve this goal, a grounded theory approach will be applied, in particular, one that compares Jordanian and UK regulations around electronic commerce and privacy. In terms of data collection methods, semi-structured interviews and documents will be used as the main sources of data.

The next chapter will discuss how data that has emerged from the empirical field work is to be analysed, and how the techniques of a Straussian approach, in terms of data analysis, are implemented on the data collected from Jordan and UK.

6 Data Analysis

6.1 Introduction

This chapter will discuss in detail the findings from analysis of the data collected by the study from Jordan and the UK, from the consumer, legal and business perspectives. This will be achieved by describing how the analytical codes and categories emerged from respondents' discourse, and through implementing grounded theory techniques as a data analysis tool. The chapter is structured into two main parts, the first of which presents the divergence between the originators of grounded theory. The second part will present the concepts and categories emerging from the Jordanian and UK contexts as a consequence of implementing the Straussian approach.

6.2 Grounded theory

The grounded theory method has its roots in the Symbolic Interactionism approach, which itself stems from the pragmatist ideas of James, Dewey, Cooley and Mead (Heath and Cowley 2004). The term 'Symbolic Interactionism' was coined by Blumer in 1937 (Manning and Smith 2010) and, together with 'Naturalistic Inquiry', has had a significant role to play in the development of grounded theory (Heath and Cowley 2004).

The grounded theory method was first introduced by the sociologists Anselm Strauss and Barney Glaser. They presented this theory in their book "The Discovery of Grounded Theory". Grounded theory emerged as a successful cooperation during their studies of hospital deaths in the early 1960s (Charmaz 2006). Strauss and Glaser in effect suggested that theory could be generated through applying systematic qualitative analysis (Charmaz 2006). However, their book was followed by series of publications which articulated a divergence between the authors' two points of view.

Grounded theory has been presented in many versions since its initial development (Heath and Cowley 2004), such as those of Charmaz (2003), Chenitz and Swanson (1986) and Schatzman (1991). But the most visible variation is between the ideas of the two initiators of grounded theory, that is, Glaser and Strauss (Heath and Cowley 2004). The differences between the two versions will be discussed below, followed by an explanation of the reason for choosing the version to be used in this research. Then the procedures of the chosen version will be reviewed.

According to the originators of grounded theory, the aim was to discover theory through a systematic analysis of data. According to Glaser and Strauss (1967, p.3), this theory is able to: (1) present predictions and explanations of behaviour, (2) further theoretical advances in sociology, (3) enable practitioners to understand and gain control of situations, (4) provide a perspective on behaviour, and (5) provide a style for research on a particular area of behaviour.

The theory that meets all of these requirements should be fit in the following regards: theoretical categories should fit the data in a way that is relevant and understandable; the core idea should be allowed to emerge and should explain what happened, predict what will happen, and interpret what is happening; and it should be modifiable, in such a way that the theory can be modified every time new data is collected (Backman and Kyngas 1999; Corbin and Strauss 1990; Glaser 1978).

To fill the above requirements, the authors propose "the systematic discovery of the theory from the data of social research" (Glaser and Strauss 1967, p.3). They argue that the main characteristics of such theory are that it should be difficult to refute when confronted with more data or to replace by another theory.

Grounded theory stands on a method of constant comparative analysis, which is a process of looking for patterns in the data and then conceptualising them, entailing further coding and analysis (Glaser and Strauss 1967). This may be achieved through applying a theoretical sampling method, defined as "a process of data collection for generation of theory" (Glaser and Strauss 1967, p.45). These themes will be discussed in the following sub-section.

6.2.1 Constant comparison

The Constant Comparative Method aims to generate theory systematically through beginning to analyse and to code data at the same time (Glaser and Strauss 1967). It is used jointly with theoretical sampling and allows for the flexibility and vagueness that helps the analyst in generating his theory (Glaser and Strauss 1967).

Constant comparison is designed to compare incidents to each category, integrate categories and their properties, delimit the theory, and write the theory (Glaser and Strauss 1967, p.105). The analyst aims, by using the constant comparison method, to find the critical points in respondents' speech that seem related to issues under investigation that remain vague; and tries to address these in greater depth from the respondents' perspective.

Strauss and Corbin (1998, p.78) state that theoretical comparison "is to stimulate thinking about properties and dimensions and to direct theoretical sampling", and has the potential to suggest further interview questions based on the evolving theory. Comparative analysis can generate two kinds of theories, *substantive and formal.* "Substantive theory is developed for a substantive area of sociological inquiry, while

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formal theory is developed for a formal area on sociological inquiry" (Glaser and Strauss 1967, p.32).

This research is going to develop a substantive theory due to the concentration of the researcher on a substantive area of inquiry, that is, privacy regulations and their impact on the development of electronic commerce. Furthermore, as this research focuses on a substantive area of inquiry through a comparative approach, looking at the situation in Jordan and the UK, the generation of a theory through a comparative analysis is possible (Glaser and Strauss 1967). Moreover, Glaser and Strauss argue that the likelihood of successful comparisons is increased deeply by choosing different and widely contrasting countries, which certainly fits with the comparison envisaged by this study.

6.2.2 Theoretical sampling

Theoretical sampling is a cumulative process of data collection for generating theory (Glaser and Strauss 1967; Strauss and Corbin 1990). It is "a sampling on the basis of concepts that have proven theoretical relevance to the evolving theory" (Strauss and Corbin 1990, p.177). They note it aims to *sample incidents not persons per se.* It helps a researcher to determine what kind of data he should collect and where he can find it. It also helps the researcher to discover the gaps in the theory and research questions (Glaser and Strauss 1967, p.47). This leads to the arguement that theoretical sampling is a deductive activity grounded in inductive categories or hypothesis (Backman and Kyngas 1999; Fernández 2004).

The theoretical sampling technique is designed to be applied during the data collection and analysis process (Glaser and Strauss 1967). Strauss and Corbin (1990) argue that it

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helps to create a relationship between emergent concepts and categories through their properties and dimensions.

Bearing in mind the aims of this research, the researcher has chosen interviews as the main data collection instrument. This is because the researcher aims to draw from a rich source of data in the people who are included in the study, who have knowledge and experience of electronic commerce regulations and activities. From this perspective, Strauss and Corbin (1990) have stressed that theoretical sampling is a form of purposive sampling. Furthermore, it is useful to use where data analysis is carried out in conjunction with data collection (Strauss and Corbin 1990, p.183), which helps the researcher to choose the correct people to interview during the data collection process. Finally, the theoretical sampling process can stop when the emergent categories reach a point of saturation. *Theoretical Saturation* is the criterion for judging at what stage the researcher can stop sampling and collecting data (Glaser and Strauss 1967). When concepts start getting repeated, the researcher can feel confident that a category has been saturated and can move on to saturate another one.

However, after their work on the "discovery of grounded theory", there arose a divergence in views between Glaser and Strauss about the best way to generate theory from data. This will be discussed in the following sub-section.

6.3 Glaserian vs. Straussian approaches

Locke (1996) classified the two diverging schools of grounded theory as "Glaserian" and "Straussian". She emphasised the lack of significant differences between Glaser and Strauss in the main analytical procedures of the method, such as constant comparison and theoretical sampling. But she noted that they disagreed about the relationship

between the researcher and the domain of investigation. Glaser asserts that Strauss and Corbin's approach is not grounded theory but is a "full conceptual description" of it (Glaser 1992). For his part, Robrecht (1995) identifies the divergence between Glaserian and Straussian approaches as methodological rather than ontological and epistemological in character, in that the Straussians' developed their own analytic techniques (Heath and Cowley 2004). The overall differences between the two originators will now be summarised.

While, according to Strauss and Corbin, the researcher has an active role in the research process, he or she does not have this role according to the Glaserian approach (Onions 2006). Furthermore, one of the main differences between Glaserian and Straussian approaches relates to the conceptualisation process (Smit and Bryant 2000). With the Straussian approach the researcher must give each observation, paragraph and sentence a conceptual name that represents a phenomenon. On the other hand, Glaser argues that this constitutes a process of over-conceptualisation and suggests instead that the researcher should compare each incident with other incidents or concepts (Smit and Bryant 2000).

The third difference between the two concerns the Straussian suggestion of using questions such as when, who, what and which, that, as Glaser stated, could force the data and its analysis into preconceived categories (Charmaz 2006). She adds that Glaser suggests a few neutral questions like "what is this data a study of?" "What property of a category does this incident indicate?"

One more difference between the Glaserian and Straussian approaches is due to the role of literature in the research process. Both authors agreed on the fact that the researcher

will not enter the field free of ideas but they disagree on the role of literature (Heath and Cowley 2004). According to Strauss and Corbin (1990) the researcher needs to gain familiarity with previous knowledge about the phenomenon under investigation. They emphasise that the use of literature in the research study is a basis for professional knowledge (Allan 2003).

Furthermore, Heath and Cowley (2004, p.142) argue that using literature provides guidance for the novice researcher. Nevertheless, Glaser (1978) criticised this trend based on its potential to bias the researcher in his or her interpretation of data. This is because previous knowledge could direct the researcher's attention, thus the researcher would need to suspend his knowledge about the phenomenon under investigation (Backman and Kyngas 1999).

Consequently, Glaser emphasises that Grounded Theory should investigate the reality and analyse the data with no preconceived hypothesis (Allan 2003), and an exploration of the literature should only occur once the emergent theory has been developed (Heath and Cowley 2004). However, Carpenter (2011) summarises the differences between the two approaches as displayed in table below.

	Glaser&Strauss/ Glaser	Strauss and Corbin/Corbin and Strauss
Epistemology	No preconceived ideas about the area of study. No literature review is to be conducted. The researcher begins from a position of naiveté and learns from the experts.	The researcher can gain insights into data through literature review. Theories are considered as a lens through which the researcher approaches the data and should be named, if used
Research question/ research problem	The researcher studies an area of interest; a specific research question is not needed.	A research question is stated.
Ethical considerations	Grounded theory is about concepts, not people. Transcription of interviews is not necessary, but information about specific individuals should be confidential	Interviews can be transcribed, and this is recommended for novices. Data should be stored securely. Confidentiality should be ensured.
Data gathering	No interview guide is needed because these are based on preconceptions. The participants are	Unstructured interviews are recommended. Observations are also part of the data, but are subject to

	considered the experts and will reveal their main concern. Field notes can be used, as well as photos, news articles, historical documents, and other information that clarifies the concepts.	interpretation and should be clarified with the participants.
Data analysis	The researcher sorts and re-sorts memos until the major concepts become clear. After this, the theoretical connections among the concepts should be stated	Computer programmes can be used to aid data analysis
Results	The results of the study should be "written up" from the memos. The study will result in a substantive theory that explains what is going on in the area of interest. Numerous theories can be discovered from one study.	Data analysis, at a minimum results in themes and concepts. Theories can also be developed from the data, but this is not a necessary outcome.
Evaluation	Fit, work, relevance, and modifiability	Fit, applicability, concepts, contextualisation of concepts, logic, depth, variation, creativity, sensitivity, and evidence of memos.

Table 6-1: Glaserian vs. Straussian Approaches.
Source (Carpenter 2011, p.127)

To conclude, the researcher has opted to use the Straussian approach as a data collection and analysis technique. This decision relates back to several factors, as follows. First, the researcher does not have sufficient previous knowledge about electronic commerce. The Straussian approach is particularly appropriate for such novice researchers, in allowing an exploration of the literature and familiarisation with previous knowledge prior to entering upon field work, rather than the Glaserian approach, where the researcher enters the field work directly and then goes back to the literature afterwards.

Furthermore, while there are no ontological and epistemological differences between the two approaches, there is a methodological difference in the method's analytical procedures. The Straussian approach is more systematic than the Glaserian approach, giving the researcher a more active role in deploying these analytic procedures in the

research, which is an appropriate approach for this study. The next section will therefore discuss the procedures that are applied within the Straussian approach.

6.4 Straussian approach procedures

This section will discuss coding procedures according to Straussian approach. Coding in grounded theory is the fundamental analytic process used by the researcher (Corbin and Strauss 1990, p.12). Strauss and Corbin define coding as the process of analysing data. Strauss and Corbin advised coding by "micro-analysis which consists of analysing data word by word and coding the meaning found in the words or groups of words" (Strauss and Corbin 1990, p.65). Crawford and colleagues (2000) criticised the coding process as time consuming, and tending to lead to over-conceptualisation; according to Glaser (1992). However, there are three types of coding, open, axial, and selective, which will now be discussed.

1. Open coding:

This is "the process of breaking down, examining, comparing, conceptualizing, and categorizing data" (Strauss and Corbin 1990, p.61).

The first step in coding the data is the "*conceptualisation process*". Analyse text process begins with undelying key phrases because they make some as yet inchoate sense (Sandelowski 1995). In this stage of coding, (for more explanation see sub-sections 7.2.1, 7.2.2, 7.2.3 and 7.3.1) the researcher has to compare one incident with other incidents or any other part of the data, such as the sentence and paragraph, and then give it a name that represents the phenomenon (Corbin and Strauss 1990; Strauss and Corbin 1990). It might be achieved by focusing on the interview text line-by-line, or by sentence, or paragraph (Strauss and Corbin 1998).

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Labelling concepts could be arrived at by asking normal questions such as: what is this? What does it represent? Consequently, analysis tools in grounded theory are dependent on the "making of comparisons" and "asking questions". This is why grounded theory is referred to in the literature as "the constant comparative method of analysis" (Glaser and Strauss 1967). In this step, the researcher could use a *memo*, which is the researcher's record of analysis, thoughts, interpretations, questions, and directions for further data collection (Strauss and Corbin 1998).

The second stage is "*categorising*". In this step the discovered concepts will be compared with each other, and thus grouped the concepts which seem to pertain to the same phenomenon can be organised into a higher group (Corbin and Strauss 1990; Strauss and Corbin 1990). To do this, the question should be asked: what does the concept seem to be about? This will make it easier to categorise the concepts.

Alternatively, a simple way to remember the categories is by giving each category a "name" that distinguishes it from other categories. This name could come from the researcher *per se*, from the literature, or the informants, or from 'in vivo' codes themselves. It does not matter where the name comes from, but the important thing at the first analysis is the naming of the categories (Strauss and Corbin 1990, 1998).

The categorising of concepts is very important because it enables the number of units to be reduced (Strauss and Corbin 1998). Together with a category, there is a sub-category, which is related to the main category and goes around it. To link between categories and sub-categories is an important aspect of open coding. This could be done by using properties and dimensions. Properties are "attributes or characteristics pertaining to a category", dimensions are the "locations of properties along a continuum" (Strauss and

Corbin 1990). To discover the properties of each category, the investigator could ask questions like *how*, *where*, and *when.* Properties might also have sub-properties.

2. Axial coding:

Strauss and Corbin defined this as "a set of procedures whereby data are put back together in new ways after open coding, by making connection between categories" (Strauss and Corbin 1990, p.96). This operates by making connections between categories and their sub-categories. But, it is still the researcher's responsibility to develop the categories.

In axial coding, subcategories are related to their categories through the paradigm model; (for more explanation see sub-sections 7.2.4 and 7.3.2) which enables the researcher to think systematically about data. Using this model will provide the researcher with the power of density and precision (Corbin and Strauss 1990; Strauss and Corbin 1990). To conduct axial coding according to the true path, there should be a focus on the following variables:

(A) CAUSAL CONDITIONS ⟶ **(B) PHENOMENON** ⟶

(C) CONTEXT ⟶ **(D) INTERVENING CONDITIONS** ⟶

(E) ACTION/INTERACTION STRATEGIES ⟶

(F) CONSEQUENCES
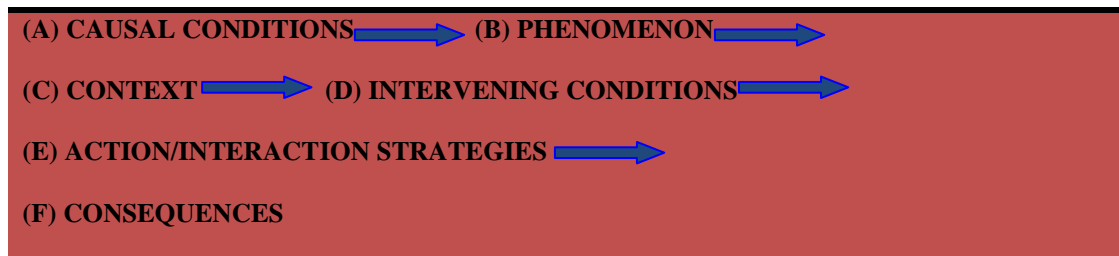
Figure 6-1: Paradigm Model in Axial Coding.
Source (Strauss and Corbin 1990)

- **Causal conditions**: events, incidents, happenings that lead to the occurrence or development of a phenomenon.

- **Phenomenon**: the central idea, event, or incident which a set of actions or interactions are directed at managing, handling, or to which the set of actions is related.
- **Context**: this represents the particular set of conditions within which the action/interactional strategies are taken.
- **Intervening conditions**: the structural conditions bearing on the action/interactional strategies that pertain to a phenomenon.
- **Action/Interaction**: strategies devised to manage, handle, carry out, and respond to a phenomenon under a specific set of perceived conditions.
- **Consequences**: the outcomes or results of action/interaction

3. **Selective coding**:

In axial coding the researcher should develop the basis for selective coding, which is the final step of coding. Selective coding is defined as "the process of selecting the core category, systematically relating it to other categories, validating those relationships, and filling in categories that need further refinement and development" (Corbin and Strauss 1990, p.116).

The technique here, as applied in sub-sections 7.2.5 and 7.3.3, is to look at the categories that have already been discovered and to see if one of them is abstract enough to encompass all that has been described in the story (Strauss and Corbin 1990). This category will be the core category, which is the central phenomenon around which all the other categories are integrated. To achieve the integration it is important firstly to create the *story line,* which is the conceptualization of the narrative (Strauss and Corbin 1990).

Finally, the proficient grounded theorist should be skilled in the coding procedures (Strauss and Corbin 1998). The grounded theorist might be supported by the use of computer software, to assist him in the analysis process. The importance of such software will be discussed below.

6.5 Computer-Assisted Qualitative Data Analysis Software (CAQDAS)

The design of the chosen software influences analysis procedures at all levels; therefore, many scholars have written about qualitative data analysis software such as Fielding and Lee (1991), Kelle (1995) and Weitzman (1999). Until the beginning of the 1980s most qualitative researchers were analysing their data by hand, although by the mid 1980s, some researchers has begun to incorporate word processing technology into their data analysis strategies (Weitzman 1999).

From the 1980s several software programs were created to help researchers in the data analysis process. The purpose of using computer-assisted qualitative data analysis software is to meet the challenges of managing large data sets, keeping track of data and keeping track of the ongoing analysis conducted. This kind of software also supports the transparency and accuracy requirements of the analysis process (Welsh 2002).

A great deal of software has been created in recent years to deal with the requirements of qualitative researchers (Walsh 2003). Thus, Computer Assisted Qualitative Data Analysis Software (CAQDAS) is divided into several categories (Morison 1998; Weitzman 1999):

1. Text retrievers (content analysis): such as sonar Professional, The Text Collector, and zyindex, Metamorph, tams, varbrul, Word count, and word cruncher

2. Text based managers: such as askSam, folio views, idealist, infotree32 xt, and textbase alpha.
3. Code-and retrieve programs: such as hyperqual2, kwalitan, qualpro, martin, and The data collector, answr, cisaid, cdc ez-text, esa, ethno2, hypersoft v. 3.01, kit, kwalitan v. 4.0, qda miner, qed analysis, the ethnograph, weft qda
4. Code-based theory building: such as after, aquad, atlas/ti, code-a-text, hyperresearch, nud-ist, qca, the ethnograph, winmax, maxqda, qualrus,and nvivo.
5. Conceptual network builders (concept maps and diagrams): such as Inspiration, metadesign, and visio. atlas/ti, ihmc concept map software, and decision explorer.

Whatever type of software is chosen for the analysis process, this does not mean that using software is a substitute for the role of the researcher in the analysis process (Morison 1998; Tallerico 1991; Weitzman 1999). Thus the researcher still has the main role, while the software just simplifies the analysis process.

NVivo is one of the computer-assisted qualitative data analysis software programs mentioned above, and it has been chosen to be used in the analysis process in this research. The introduction of NVivo has resolved problems that are created in dealing with the other software (Welsh 2002), although the researcher's IT skills are likely to influence his ability to use this type of software. Thus, he might need to invest considerable time in learning everything about it, and as a result this could affect the research process (Bringer et al. 2006; Morison 1998; Weitzman 1999). However, this does not alter the benefits of using the computer in data analysis (Morison 1998), and it is easy to become familiar with using NVivo over time (Walsh 2003; Welsh 2002).

The reason for using NVivo in this research is its suitability in dealing with large amounts of data (Walsh 2003; Welsh 2002), its capability of reducing the volume of work (Rouse and Dick 1994), and its capacity to speed up the analysis process and save a lot of time in analysing data.

In addition, NVivo is suitable to be used with the grounded theory method. Grounded theory relies upon revising concepts and codes many times within the analysis process (Strauss and Corbin 1990), and using NVivo as assisted software helps in building theory from data, and enables the researcher to revise his concepts and codes at any time of the analysis process (Walsh 2003; Welsh 2002).

The coding process in grounded theory is conducted by using the constant comparative analysis method, which needs an on-screen coding process rather than coding on hard copy (Weitzman 1999). So NVivo software enables the researcher to do that and gives him the ability to know what was said and who said it (Morison 1998; Richards and Richards 1994).

Where computerised software is used, it is possible to revise emergent categories and concepts easily (Tallerico 1991), because NVivo works like the old loose leaf binder that many qualitative researchers have gained familiarity with in the past (Walsh 2003), and helps the researcher with tasks in the analysis process that are not feasible by hand (Weitzman 1999).

Finally, using NVivo in the analysis process can increase rigour in interrogating data through the search option, to a degree that could not be achieved by analyzing manually (Walsh 2003; Weitzman 1999). It also increases trustworthiness and reliability through opening results up to debate (Welsh 2002). It increases consistency and comprehensiveness (Crowley et al. 2002; Weitzman 1999), and as Bringer and colleagues (2006) have noted, it increases efficiency. So, Nvivo 8 was the used version in this research.

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To conclude, the Straussian approach will be used on the data collected from Jordan and the UK, and will be applied based on the procedures discussed above. The next part of this chapter will implement what has been said on the data collected to see how it works in practice.

6.6 Data analysis from the Jordanian and UK contexts

As mentioned above, the Straussian approach has several techniques and procedures that must be followed in order for grounded theorists to generate their theory. In line with what has been discussed in the previous section, therefore, the researcher has implemented these procedures and techniques to generate the required theory. Data have been collected from Jordan and the UK which means that two grounded theories will emerge. To balance the structure of this chapter, this will be discussed in two sub-sections. The first sub-section will discuss the Jordanian context, and the second will describe the context in the UK.

6.6.1 Grounded theory from the Jordanian context

This sub-section will discuss the findings that emerge regarding the impact of privacy regulations on the development of electronic commerce in Jordan from three viewpoints: the consumers, companies and governmental experts. The following paragraphs will examine how GT is implemented in this research with regard to the Jordanian context.

First of all, interviews were conducted in Arabic, see 5.5.3. At this stage the analysis procedure started, and the researcher analysed the Arabic text by applying GT techniques, subsequently translating the emergent concepts into English text.

The second stage was the actual commencement of the analysis process, in which the data was broken down and examined line-by-line and incident-by-incident to generate a large number of concepts and label phenomena [*more examples are attached in appendix E*].

This was achieved by asking questions such as: What is this? What does it represent? It helped the researcher to make comparisons between the emergent concepts, to categorise similar concepts that represent the same phenomena under one category, and helped the researcher to intimate what kind of further data may exist and where to find them. Each category has been named, which characterises it under one category distinct from the other categories.

By following the above-mentioned techniques, as discussed in 6.4, the researcher obtained several concepts that represent different phenomena. For example, the researcher asked one respondent this question: Could you describe your concerns when buying/selling online? He said:

> *The first thing is that I buy from Amazon and eBay, so, the websites should be secure,……, However, the important issue is that the consumer should know the kind of dealer he is going to deal with [e.g. on eBay] and he can learn that from the stars next to the dealer's name, and he should know the source of the product because it should be trusted, and I think he should not buy products online in large quantities due to hacking threats and should buy from known sources.*" (R1. Online Consumer, male, 30s, Jordan, 10th August 2010)

This text has been broken down and examined by the researcher. The main words and sentences provided by the respondent have been underlined to allow a deeper examination of it. Several concepts have been revealed by the respondent about e-commerce websites and consumers' concerns in shopping online. One of the main concerns of consumers when buying/selling online is *website security*. This comes explicitly from the mouth of a respondent, so this phenomenon has been given the same name as was given by the respondent in 'in vivo' coding.

Moreover, when the consumer wants to buy online, they should know the kind of seller they are going to deal with. This comes from both experience *(the consumer should*

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know the kind of dealer he is going to deal with) and from the practice of e-buying (*and he can learn that from the stars next to the dealer's name). * Other phenomena have been revealed such as *trust (the source of the product because it should be trusted), * and as when he said *"he should not buy products online in large quantities due to hacking threats and should buy from known sources"*.

These emergent phenomena, *website security, experience, practice and trust, * have been compared with each other by asking questions such as: What is this? What does it represent? The same phenomena which share the same properties have groups in the same category. Three categories have been characterised: *technical factors*, *consumers' characteristics factors, and personal factors*. Website security is grouped under the *technical factors* category. Experience and practice are grouped under the *consumers' characteristics category*. From the first interview, the researcher get some initial categories that guide the data collection process by using theoretical sampling and constant comparison methods.

Other phenomena have been revealed by continuing the analysis process and using a constant comparative method, such as *awareness in the minds of consumers. * This emerged when the researcher asked: "How do you know if the website is secure and safe?" He replied:

> *"Some websites use an https portal and the consumer should check the antivirus inside his PC for the sake of the protection of credit card details. Any respectable website should send a confirmation message that confirms the success of transactions or they should send a message to you asking you to confirm to complete your transaction.* (R2. Online Consumer, male, 20s, Jordan, 17th August 2010)*"*

All of the underlined concepts have emphasized the importance of awareness in the minds of consumers regarding electronic commerce when buying or selling online, in

order to make themselves safe from hacking. These phenomena are grouped under the *personal factors category.* In addition, the reputation of a company influences consumers' willingness to buy from it. This concept emerged when the respondent was asked if he bought from Jordanian websites or not he said, *"No, I did not […] because I prefer to buy from global and famous websites. Furthermore I still do not trust our Jordanian websites and to be honest I have not gone onto any of these websites"*. This concept has been grouped under the *personal factors* category.

Furthermore, other phenomena have been uncovered by this respondent's discourse. When he answered this question "*In your opinion, could you describe the factors that influence Jordanian consumers to be keen to buy/sell online?"* two phenomena emerged: *confidence* which was grouped under the *consumer characteristics factors* category and *recommendation from others* which shares similarities with "confidence" in its properties and dimensions, and for that reason was grouped in the *consumer characteristics factors* category. Both phenomena were apparent when he said:

> *"The main issue is trust and fear of using the internet to buy anything. Sometimes someone hears something about e-commerce without practising it that makes them inexperienced in e-commerce and means they miss the experience of buying online."*

At this point, the next stage of axial coding is commenced. At this stage, the data were put back together to make connections between categories and to create links between categories and sub-categories. This happens through a *paradigm model - see 6.4 -* which makes the analysis process more solid and accurate. Through the open coding stage in the supported example, three categories have emerged: the *personal factors, technical factors,* and *consumer characteristics factors* categories.

It seems that personal and cultural factors categories have similarities which led the researcher to apply the paradigm model to connect them together. Let us review what has been said by the respondent regarding personal factors that influence e-commerce in Jordan. As the respondent said, privacy is one of the main concerns of consumers when dealing online: "*Consumers buy with concern for their privacy, so if we protect their privacy we can talk about EC in Jordan. (R15. Legal expert, male, 30s, Jordan, 17th August 2010)*", which underlines that privacy constitutes a problematic issue for consumers when they deal online.

This allows, through applying the paradigm model, the deduction that the central idea or phenomenon in this situation is ***privacy concerns***. This arises due to a lack of experience in using dealers' websites. The respondent says that "*The main issue……… is [the] fear of using internet to buy anything. Sometimes someone hears something about e-commerce without practising it that makes them inexperienced in e-commerce […].R15. Legal expert, male, 30s, Jordan, 17th August 2010*". He adds that awareness is another problem because the consumer should be aware about the benefits of electronic commerce and how to distinguish between secure and non-secure websites. This emerged when he said "*the important issue is that the consumer should know the kind of dealer he is going to deal with [e.g. on eBay] and he can learn that from the stars next to the dealer's name, and he should know the source of the product because it should be trusted, and I think he should not buy expensive products online due to hacking threats and should buy from known sources.*"

A set of strategies could be set in place to challenge this issue, by emphasising the importance of awareness in the minds of consumers and enabling them to use e-

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commerce. Otherwise, he thinks that some steps should be taken to protect consumers' personal details. He said, based on his own experience in his company, that "*we have an e-payment service if consumers want to pay their bills online and we carried out all the procedures that protect consumers and their privacy from hacking. R1. Engineer, male, consumer, 30s*".

Following this, since more than one respondent mentioned them, these concepts were reassembled and re-sorted into one category that encompasses various other concepts under its umbrella. These categories emerged from consumers, organisational, and governmental perspectives as discussed in sub-section 5.5.4. The table below summarises all emerged concepts from all respondents in the open coding stage – as discussed in section 6.4.

Attitudes of Jordanian consumers	Lack of awareness within companies in Jordan about electronic commerce
The lack of awareness in the minds of Jordanian consumers	Readiness to practise e-commerce
Trust	Infrastructure
Confidence	Internet penetration
Experience	Marketing strategy
Language	The impact of successive e-government initiatives
Ability to use computer and internet	Tax and customs issues
Age of consumer	Logistical factors
Educational level	
Lack of regulations	

Table 6-2: Emerged concepts from open coding stage from Jordan context.

The next steps of analysis are the axial and selective coding that takes place, to discover the core category that encompasses all the other categories identified. This is done by validating and filling the gaps between categories and deciding if one of them is more abstract and able to encompass other categories. These steps will be discussed in detailed later on, in sub-section 7.2.4. However, the emerged categories from axial coding are "Consumer's Attitude" "Companies' Readiness" and "Government

Response", while the core category – see sub-section 7.2.5 – is the Collaboration Responsibility to overcome the privacy concerns and develop EC implementation.

6.6.2 Grounded theory from the UK context

The previous sub-section discussed the implementation of grounded theory within the Jordanian context, and thus this sub-section will move on to implement the grounded theory procedures within the UK context. This helps to discover the theory that reveals the role of privacy regulations in the development of electronic commerce in the UK.

First of all, interviews were conducted in the English language: see 5.5.3. At this stage the analysis procedure commenced, and the researcher analysed the English text by applying Straussian grounded theory techniques.

Subsequently, the data being ready for analysis, the first step of the grounded theory techniques, open coding, was applied, with data broken down and examined line-by-line and incident-by-incident to generate a large number of concepts and to label phenomena [*more examples are attached in appendix F*]. This is achieved by asking questions such as: What is this? What does it represent? This helps with the creation of comparisons between concepts and categories and to label those concepts that have similar properties to represent a particular phenomenon under one category.

For example, the researcher asked one respondent this question: Do you have any concerns about transmitting your personal information through the internet? He replied:

> *"When I first starting buying online I had a concern about giving my details but when I regularly started using the saving websites, the more popular ones, I get the experience. I became aware if the website was secure or not. So before I completed a transaction, I would see if the website was secure or not and recently I bought from a website I had not seen before, but I checked that the website was secure or not."* (Online Consumer, UK, 21st April 2011)

The Straussian procedures were applied as discussed in 6.4. The main concepts in this text are underlined. From examining the text, several concepts are revealed through the respondent's discourse concerning the factors that affect his decision to buy online. "*Experience*" is an important issue for giving consumers the willingness to provide their personal information and engage in electronic commerce. This concept emerges explicitly from his speech when said "*When I first started buying online I had a concern about giving my details but when I regularly started using the saving websites, the more popular ones, I get the experience.*"

Besides this one, further concepts emerged from the respondent's speech. These concepts show the consumers' concerns toward their Privacy, as when he said, for example, "*....I have a concern about giving my details...*", and added "*Security issues constitute another problem for non e-commerce users*". Furthermore, some people had a bad experience with electronic commerce; this prevented them from buying online again and made them take more care about transmitting their personal information online. He said "*I know some stories about people's accounts being stolen and obviously they are not confident to buy online again.*" Additionally *awareness about electronic commerce* is another drawback, as when he said "*I got experienced. I became aware if the website is secure or not.*" He says in a different place "*I prefer buying online, because on the internet I can get more offers and it's cheap as well. It is cheaper than buying directly from the shops.*"

From continuing the analysis process, several concepts have emerged from the respondent's answer, namely: *age*, *the ability to use a computer and the internet*, and *trust (website reputation)*.

The next step of axial coding - as discussed in 6.4 - in the analysis process will be applied after new phenomena have finished emerging. At this stage the researcher categorises all the concepts that share the same properties into one category. Each category encompasses all concepts that share the same properties. These categories are *personal factors*, *consumer characteristics factors*, and *demographic factors*.

The *personal factors category* contains the role of awareness concept. This phenomenon plays a significant role in encouraging people to provide their personal information online and practicing electronic commerce. This phenomenon is different from one individual to the next. Some people consider that electronic commerce makes their life easier, while others do not. Some people are interested in electronic commerce and know everything about it, while others do not. However, some people know how to keep their information safe, while others do not.

The *consumer characteristics category* includes the ability of individuals to use the computer and the internet, and the notion of trust. By contrast, the age of individuals comes under the *demographic factors category*. The following table summarises all emerged concepts from the open coding stage – as discussed in section 6.4.

Consumers' Attitude	Trust
Confidence	Experience
Ability to use computer and internet	Age of consumer
Educational level	

Table 6-3: Emerged concepts from the open coding stage from the UK context.

The next steps of analysis are the axial and selective coding, undertaken to discover the core category that encompasses all the other identified categories. This is done by validating and filling the gaps between categories and finding if one of them is more abstract and can encompass all the other categories. The emerged categories from the axial coding stage – see 7.3.2.1 – are "Demographical Factors" and "Consumer's

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Attitude", while the emerged core category, see sub-section 7.3.3, is the "Consumer's Attitude" to overcome the privacy concerns and develop EC implementation in the UK.

6.7 Conclusion

This chapter has discussed the grounded theory approach in more detail through presenting differences between the two original approaches, the Glaserian and Straussian. It explains the reasons why the Straussian approach was chosen instead of the Glaserian to be used as a data collection and analysis method in this research. The chapter ends by discussing the Straussian procedures through giving two examples from the Jordanian and UK field work.

The next chapter will discuss the findings of the data analysis in more detail. It will discuss the factors that influence the consumers' privacy concerns and electronic commerce implementation in Jordan and the UK, and explain how the emerging theory relates to those factors.

7 Findings

7.1 Introduction

This chapter is concerned with the findings from the analysis of data from both contexts, Jordan and the UK. This chapter is divided into two sections: the first one discusses Jordan, and the next discusses findings from the UK. This chapter implements the procedures determined by Strauss and Corbin (1990), as mentioned in chapter 6, and clarified in the guidelines in Urquhart et al. (2010). The process implies three stages of analysis, open, axial and selective coding, and as will be seen below these procedures are implied in data collected from Jordan and the UK. In open coding, the similar emerged codes are categorised under one category due to using the constant comparison method, theoretical sampling and theoretical memos which encourage the interviewer to compare codes with each other and categorise them under one category until the saturation point is reached where no new concepts emerge. As discussed in the previous chapter, the same procedures are applied in the axial and selective coding stages where the emerged categories are recategorised from the open coding stage. This is conducted by implementing the paradigm model until the emerged categories are scaled up from axial coding to show the broader themes that represent the core category.

7.2 Findings from the Jordanian context

This section will discuss the results that emerged from the Jordanian context. The factors that emerged from the Jordanian context from the three perspectives of consumers, public and private sectors as shown in sub-section 6.6.1 and discussed in sub-section 5.5.4, will be discussed individually in the next sub-sections of this chapter. The emerged categories and concepts have been revealed from the open coding stage. These categories can be broken down into properties and dimensions which strengthen

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the gathering of such concepts into one single category. This will be discussed in the following sub-sections to explain how these properties and dimensions play their role in the analytic process.

7.2.1 Privacy concerns based on the consumers' perspective (Open Coding Stage)

Three categories have been revealed with regard to consumers' perceptions from the open coding stage as discussed in 6.4. The following subsections will discuss each of these categories. These categories are grouped under one heading because of the properties and dimensions that distinguish them from other categories. The sub-categories that have emerged in this perspective are: demographic, consumers characteristics and personal categories.

7.2.1.1 Demographic factors

With regard to demographic factors, two factors have emerged from the field study in Jordan: age of consumer and level of education. With regard to the age of consumers, this aspect was mentioned by some respondents. This was apparent in their replies when the researcher asked them about the relationship between the age of consumers and its impact on their privacy concerns. However, respondents did not talk directly about the impact of age on the privacy concerns rather than talking about the impact of age on the willingness of consumers to buy online. One respondent said:

> *"The age of consumer is one of these obstacles. You can see that young people and the new generation are enthusiastic about using electronic commerce. In contrast the old generation is afraid of using technology. In addition, fear of the new technology is one of those barriers such as, the fear of personal data theft or the fear of using technology".R13.* Director *at the ministry of ICT, Male*

Respondents feel that the age factor impacts the consumer's privacy because young

people are more motivated to participate in electronic commerce activities due to their ability to use new technology, in contrast with the older generation, who are less willing to use it due to their apprehension of using new technology and their fear that their personal details will be stolen. This raises the necessity to acquire more data from respondents about the reasons that make elder people more cautious in using technology and more concerned about their privacy. Therefore more data has been collected from another expert in EC, who attributes this fear to the following reason when he said:

> *"Absolutely yes because <u>the majority of the previous generation didn't use a computer before, so how can they buy online? Another thing is that most of them are not convinced about electronic commerce</u>." R12. Director in Amman Chamber of Commerce .*

When looking back at official literature it was found that age has a significant role on EC activities in Jordan. This appears in the records of the Hashemite Kingdom of Jordan Department of Statistics, in a study conducted in 2010. This study mentions that most internet users in Jordan are in the age group 14-25 which shows that most e-commerce users are grouped in the new generation, which declares that young people in Jordan are more capable of online transactions than older people. However, more comparisons of this concept and more data collection leads some experts in the EC field to understand why young people are more capable of using EC rather than their elders. This familiarity with technology gives them the ability to understand when, how and to what extent they have to provide information about themselves.

As an example, a third respondent gave some reasons that make young people less concerned about their privacy and more capable of using electronic commerce in contrast with the older generation. From this respondent's replies it was clear that teaching young people how to use technology is easier than teaching their elders; this

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makes young people more confident about dealing with technology. For example one respondent observed that:

> *"By default the <u>youth segment is the target of the national strategy, because when they all finish at school, they know everything about the computer and have many email addresses</u>. I think this happens <u>because the internet and computer have become a significant part of their life</u>. But this doesn't mean we don't need the previous generation to use electronic commerce. <u>Some of this generation wants to learn technology and to use the computer and internet</u>. So, if they become familiar with the internet, it will be easy to contact them and let them make use of electronic commerce".* R11, Ex Director of EC strategy in the ministry of Trade and Industry.

This came out more saliently when another respondent made links between the age of a consumer and their objectives in using the internet. This respondent confirms that the desire to transact online is affected by the reasons for using the internet, and this desire is not the same for the young and the elders. This respondent said:

> *"The youth is more confident about using electronic commerce than their elders. Because <u>they are more willing to use the internet to buy what they need,</u> and <u>they have greater awareness about information technology than others</u>. In contrast, <u>most of the older people have limited their use of the internet to getting information, rather than for buying</u>."* R7. Director of EC strategy in the ministry of Trade and Industry.

On the other side, the level of education constitutes a factor that influences consumers' concerns about their willingness to participate in electronic commerce activities and as a result influences their privacy. Based on the respondents' returns, this factor is closely connected with the previous factor when the participants mentioned the reasons that differentiate youth from the older generations. For example, several experts in the EC sector from different backgrounds argue that a lack of knowledge about the security features of internet websites discourages consumers' from providing their personal information online. Respondents mention that education directly influences their knowledge about security features, which leads them to be cautious about providing their personal information online. The following respondents said:

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> *"In Jordan..... <u>one of the main factors is the level of consumers' education.</u>" R15. Legal expert."*

> *"There is still <u>a duty on the consumer to know the tools that make him safe from hacking and to be assured that the website is secured. He can do that from the padlock sign, https portal,</u> and from the age of the website. <u>And the problem is that not all of our citizens know about these issues.</u>" R16. Employee at EC programme in the ministry of Industry and Trade."*

In this regard, the level of education has a significant role in increasing the knowledge of consumers about computers and the internet and this is shown in the Hashemite Kingdom of Jordan Department of Statistics in its study conducted in 2010. This shown that 84% of graduated students are able to use a computer, and 66% of students who finish the primary and secondary stages of education are able to use a computer. This shows that educational level influences the ability of students in dealing with technology, and as a result to practice EC and complete online transactions with no concern toward the security and personal information protection.

The way this factor interrelates with other factors can be seen clearly in the discourse about the age of the consumer. For example, respondents state that the willingness of the consumer to shop online is affected by their age. For this reason, the following respondent mentions that the government has introduced modules about the computer in schools and universities to teach students to deal with technology. This is proposed, explicitly, in this respondent's Word of Mouth (WOM):

> *"……For example <u>going back 10 years there were just 6 or 7 schools that taught English language in their programmes and this is why the previous generation were not computer users. Now it is different and all schools teach English and computer modules from the primary stage on. For that reason I think primary school students are better able to use the internet than university students from the previous generation.</u>" R12. Director in Amman Chamber of Commerce .*

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The age of the consumer and their levels of education are interrelated factors and that is why they have been categorized under one heading. Both of those factors affect privacy concerns because of their impact on their understanding about how online transactions are conducted and familiarity with the security features of websites. As a consequence there is an effect on consumers' willingness to participate in ecommerce activities.

7.2.1.2 Consumers' characteristics factors

Several concepts have been revealed in the discourse by respondents with regard to these factors: trust, confidence, experience, language and the ability to use computers and the internet. Trust constitutes a hurdle for respondents to overcome if they are to shop online. Most respondents' suggested links between trust and confidence.

Consumers have to trust when dealing online, which affects their willingness to provide personal information through the internet. Furthermore, when reviewing the literature it is found that trust has a significant role on the consumers' willingness to provide their personal information to a faceless dealer. Here, respondents indicate that trust influences the consumer's concerns towards providing their personal information through the internet and this appeared in one respondent's discourse when he said that:

> *"People still do not have the trust to disclose their credit card number through the internet and we need to increase their awareness to get them to do that." R7. Director of EC strategy in the ministry of Trade and Industry.*

The lack of trust within consumers prevents them providing personal information online. However, this guides the researcher looking for the character of this trust. Does this trust attribute to the fear of using technology? Does this value ascribe to a lack of trust in Jordanian companies? In the previous section, the lack of knowledge of older people about internet shopping was shown to make them prefer purchasing directly from a shop. In addition, concerns about personal information by Jordanian consumers

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are based on the lack of trust in Jordanian companies, as previously mentioned. For example, one respondent explicitly stated that he does not trust Jordanian websites, and for that reason he does not feel confident to buy from them. He said:

> "I bought from global websites because I do not trust in the Jordanian websites" R1. Engineer, male, consumer, 30s.

To confirm whether this situation is an exceptional example the researcher asked other respondents to give an explicit information if Jordanian people trust Jordanian companies or not. Jordanian customs service records show that some Jordanian consumers buy from global websites:

> "The evidence is that the Jordanian customs records mention the number of consumers who buy outside Jordan through the internet." R11. Ex Director of EC strategy in the ministry of Trade and Industry.

In addition, during data collection and comparison of incidents with each other and when talking to different people; it is found that trust and confidence among consumers are affected by experience, language and the fear of using the computer and the internet. For example, this is displayed in the answers of an officer from the ministry of trade and industry when he said:

> "If they bought one time they will be habituated to buy another time and so on." R11. Ex Director of EC strategy in the ministry of Trade and Industry.

It is clear by comparing these impressions that are related to trust and confidence and by collecting further data that a lack of experience could be due to personal resistance or based on the negative experiences of other people. According to the respondents, this leads to a lack of confidence within the consumer, which makes him/her more concerned about providing his/her personal information. This is shown by the evidence of this respondent:

> "Sometimes they may hear something about e-commerce without engaging in it which makes them inexperienced in e-commerce and

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> *lacking in experience of how to buy online." R1. Engineer, male,*
> *consumer, 30s.*

The lack of experience in conducting online transactions creates a lack of confidence and trust among consumers so they prefer to purchase directly from a shop, even though they want to buy through the internet. Therefore, this situation leads them to withhold their personal information, particularly their name and financial information in an environment that feels unsafe for them.

Furthermore, the language of the internet, based on respondents' answers, constitutes another obstacle for the Jordanians' concerns towards shopping online and the provision of their personal information and therefore for the take-up of e-commerce in Jordan. This attributes to the lack of Arabic websites taking into consideration that not all Jordanians can speak another language apart from Arabic, particularly English. For example, this was displayed when one respondent said:

> *"going back 10 years there were just 6 or 7 schools that taught English*
> *language in their programmes and this is why the previous generation*
> *are not computer users. Now it is different and all schools teach English*
> *and computer modules from the primary stage on. For that reason I think*
> *primary school students are better able to use the internet than university*
> *students from the previous generation." R12. Director in Amman Chamber of*
> *Commerce.*

From the above, it is clear that the ability to speak another language – as respondents clarified in 7.2.1.1 - gives Jordanians the ability to browse foreign websites, and therefore helps them to gain experience and confidence in using the internet and shopping online. However, as not all Jordanian consumers speak another language this gives them only one choice, to buy from Arabic websites or not. Unfortunately they are not willing to buy from Jordanian companies through the internet because they do not trust Jordanian companies and there is a lack of Jordanian companies with Arabian context websites. This issue emerged in this respondent's discourse when he said:

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> *"The problem is constituted by the lack of Arabian websites that are supported by Jordanian companies. There is a concern from consumers who prefer the existing companies like these."* R10. Director at the ministry of ICT. Female.

Finally, by comparing the above factors with each other, it guides the research to look in the main issues related to consumers' ability to use computers and the internet, which constitutes another problem making consumers concerned about providing their personal information online. This lack of knowledge and awareness toward using technology and the slow adoption of e-commerce in Jordan is a consequence. One of the consumer respondents attributed this concern to:

> *"...The fear about using the internet to buy anything."* R1. Engineer, male, consumer, 30s

This trepidation could be attributed to the lack of knowledge about how to use a computer. On this subject the Hashemite Kingdom of Jordan Department of Statistics mentioned that 40% of the Jordanian population who do not use a computer give the reason as being that they do not know how to use it. Respondents agree that this ability to use a computer and the internet explains why the older generation are more concerned about their personal information than the younger generation. For example one respondent said that:

> *"The previous generation did not know anything about computers before they went to university to complete their studies. This is different from the new generation where computer modules are taught from the primary stage at school."* R12. Director in Amman Chamber of Commerce.

Therefore, respondents agree that if the consumers have the skills in using computers and the internet then they will be more confident in assuring themselves if a website is secure or not. At this point, respondents link security and privacy. This is because when they feel that both the PC and the website are secure then the personal information they provide will be protected from invasion. For example one respondent said:

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> *"I know there are a lot of safe and secure websites, but the problem happens if I go onto unsecured websites, and particularly if I purchase from my PC. If I have a virus on my PC this can help the hackers to get access to my PC and illegally obtain my bank details, which gives them the ability to use my account without my permission." R2. Graduate male, 20s.*

Furthermore, the concerns of people outside the Jordanian capital of Amman about their personal information are greater than those of people living in Amman. This is due to the digital divide between Amman and other Governorates:

> *"One of the main barriers that the government encounters is the centralisation of using the internet in Amman, which creates a gap between people in Amman and other people in different places." R10. Director at the ministry of ICT. Female.*

These emergent concepts are categorised under the consumers' *characteristics factors* due to the relationship between them and the relationship between their properties and dimensions. Consumer concerns over providing personal information online are influenced by trust, computer and internet literacy, confidence, experience and the ability to speak a foreign language.

7.2.1.3 Personal factors

Different phenomena have been revealed by respondents with regard to the impact of personal factors on the willingness of Jordanian consumers to provide their personal information online. Respondents talked about the attitudes of Jordanian consumers and how they perceive e-commerce and consumers' lack of awareness about e-commerce.

Privacy concerns of Jordanian consumers are influenced by the attitudes of Jordanian consumers, their purchasing habits and their attitudes towards Jordanian companies. For example, some Jordanian consumers are more interested in shopping online from foreign websites not from the Jordanian websites. This is because they do not trust the Jordanian companies' websites which makes them less inclined to provide their

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personal information to Jordanian websites. One respondent clarified this situation by saying:

> *"No, <u>I did not buy anything from a Jordanian website</u>, because I prefer to buy from global and famous websites. Further, I still <u>do not trust our Jordanian websites and to be honest I have not gone onto any of these websites.</u>" R1. Engineer, male, consumer, 30s*

At this point, the researcher tried to find information from companies themselves to ask them about whether Jordanian consumers have faith in dealing with Jordanian companies through the internet. To achieve that, he met a representative from a Jordanian company that deals online and asked her whether Jordanian consumers accept dealing with this company through the internet. She replies by saying:

> *"We have a highly secured and safe website but this does not persuade consumers to buy from our website. This is because <u>Jordanian consumers are not convinced about e-commerce benefits</u>." R9. EC company's representative, female*

Even though this company has ahighly secure website, Jordanian consumers still prefer dealing with globally well-reputed companies rather than Jordanian companies. This is shown in the following answer from a consumer who does purchase regularly online from global websites. When the researcher asked him about the reason that prevents him providing his personal information to the Jordanian companies, he said:

> *"<u>I still do not trust our Jordanian websites</u> and to be honest I have not gone onto any of these websites." R1. Engineer, male, consumer, 30s*

Furthermore, when the researcher met a director in Amman Chamber of Commerce, he confirmed that Jordanian consumers who buy online are buying from global high reputation websites rather than Jordanian companies:

> *"From our studies in Jordan, <u>we found that Jordanians buy from well known global website</u>s." R7. Director of EC strategy in the ministry of Trade and Industry.*

In addition, Jordanian consumers are more concerned about the security of internet websites. It makes them anxious and reluctant to provide their personal information online. At this point, respondents were convinced that Jordanian consumers were more willing to buy directly from real shops rather than online because they fear using technology. This was clarified by one respondent when he said:

> *"One of the main factors that influence consumers' willingness to participate in electronic commerce activities is the fear of using technology. This is due to the fear of their personal details being stolen."* R13. Director *at the ministry of ICT . Male.*

Completing the data collection process by using the theoretical sampling method and constant comparison method the disquiet about privacy is shown to be one of the main concerns preventing Jordanian consumers from buying online. Jordanian consumers have an exceptional purchasing culture. They want to touch and see the product, and communicate with the seller. This can be seen in the consumer's response as follows:

> *No, I did not buy anything through the internet, because I like to touch and see the product. This makes me more comfortable."* R3. Graduate female, 20s.

Another consumer added:

> *"Honestly, I find everything in the shops and I like to touch the product with my hands before deciding to buy it. Furthermore, when I buy from a shop I will be convinced that I buy what I see, not what I see in the picture when I buy online. Besides, when I buy from a shop the price is not fixed and there is the possibility of buying it for less than the fixed price. This is different if I buy through the internet because the price is fixed, and the options in front me are limited with regard to colours and characteristics."* R4. Graduate female, 20s

This exceptional purchasing culture makes those consumers unwilling to buy through the internet and they have no interest in how to ensure the safety of websites they browse. For example the following consumer said:

> *"Honestly, I have no idea about these features because I am not*

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interested in buying through the internet." R3. Graduate female, 20s

From the above, it can be seen that some Jordanian consumers see electronic commerce as remote from their concerns. This is due both to their attitudes about electronic commerce in general and in particular to their purchasing habits. In this regard, they have become habituated to making their purchases in shops, where they are able to communicate with the seller, to interact with the product itself, and they are not compelled to provide their personal information to the merchant they deal with. Therefore, if they want any product they go to the shops to get it; it is an easier way of doing things from their perspective. This led to the director of EC strategy in the ministry of trade and industry explaining the situation in the following way:

> *"This makes seller and buyer look for the easiest way to conduct their transaction; the way that guarantees the least risk for both of them. They found that making deals off-line is preferable for both of them. They see e-commerce as an abnormal way to make such deals." R7. Director of EC strategy in the ministry of Trade and Industry.*

So the reason that makes them buy online, according to the respondents, is when it is the only way to get something they need. Thus, they go online and buy only in cases where they need particular items they cannot get off-line. In this situation they can accept the notion of providing their personal information, taking into consideration their ability to use both computer and the internet and their awareness about the benefits that EC activities present. This came in the words of the EC director in the ministry of trade and industry when he explains that:

> *"The main factor that makes people buy online is need. Some of them cannot get to the shops which takes a long time, so they prefer buying online which positively affects their time, effort, and cost". R7. Director of EC strategy in the ministry of Trade and Industry.*

When asked about the way to convince consumers to provide personal information he replied by saying:

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> *"If the consumers are convinced about the benefits of electronic commerce, this means that electronic commerce will grow in Jordan. The government has a significant role in this situation." R7. Director of EC strategy in the ministry of Trade and Industry.*

It is seen from the above description that Jordanian consumers prefer to give their personal information to, and deal with, global companies rather than Jordanian companies. Moreover, both younger and older people are concerned about privacy. This can be seen in this respondent's reply when they said:

> *"Privacy is the main concern for the consumer in younger and older generations. Both are concerned about giving credit card details and they are not willing to give them through the internet. The older generation is more concerned about this than is the younger." R6. EG programme expert at ministry of ICT.*

Therefore, to make consumers more willing to provide their personal information online, they have to feel that putting such this information, particularly financial information, through the internet is secure. A legal expert in EC matters stresses that consumers must be able to feel trust about transmitting their personal details through the internet and credit card details constitute the main element for the success of e-transactions. He said:

> *"I am convinced that our citizens are concerned about privacy and do not trust using a credit card but [instead] they use the prepaid card, and for that we see a small number of transactions on the internet." R5. Legal expert*

Here, concerns about privacy can be seen in EC matters by both qualified and non qualified consumers. For example, a qualified person in the ministry of the ICT who is working in the EG programme said

> *"I am an employee of the ICT ministry and working on the e-government project but I have not bought anything through the internet since last year. This is because I am concerned about my privacy and my bank details. This requires a high level of security from the public and private sectors." R6. EG programme expert at ministry of ICT.*

This respondent has provided an example that explains how the Jordanian government deals with the privacy issue:

> *"We can see more than one example of the breach of the citizen's right to privacy. We are still not aware about the importance of this right. For example, when the ALTAWJIHI results were published on the Ministry of Education website, there was no respect for the privacy of students. You can put any name you want and you can get access to the results of that student. I know in the banking sector the story is different, but we are still not aware about the importance of this right." R6. EG programme expert at ministry of ICT.*

However, due to the lack of interest in providing their personal information through the internet for security purposes, the amount of people who buy through the internet is stated by a representative of an online Jordanian company when she said that:

> *"From our statistics, there are 3% of Jordanian people who buy tickets through the internet, which constitutes a low number out of the total buyers." R9. EC company's representative, female*

The respondent's reply has been compared with the literature review and the research finds no contradiction between what has been said by this respondent and what has been found in a study by the Arab Advisors Group which is a member of the Arab Jordan Investment Bank Group and is a specialised research, analysis and consulting company. This study is entitled "Jordan internet users and e-commerce survey 2010" and gives some relevant facts about internet and e-commerce users in Jordan. It reveals that: *"15.4% of internet users in Jordan are e-commerce users"* It also notes that: *"The estimated number of internet users who use e-commerce is 181,000 of the Jordanian population. This constitutes 3% of the Jordanian population."*

However, the researcher tried to find an explanation for this low proportion and asked respondents about that. The response and some examples are provided below:

> *"I have had good experience with e-commerce, and I tried buying from a Jordanian website. I went onto this website but to be honest it takes a long time*

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and for that reason I left it without completing the transaction." R10. Director at the ministry of ICT. Female.

Another one was more explicit and said

"The problem is that our Jordanian companies are still not ready to sell their products online." R12. Director in Amman Chamber of Commerce.

This means consumers still do not trust Jordanian websites which makes them more concerned about providing their personal information to such companies. For example, the two respondents base this lack of trust on:

"The problem lies in the companies and this is displayed in the fact that some Jordanian students bought their books from Amazon." R12. Director in Amman Chamber of Commerce.

"The problem is due to the lack of Arabic content on websites." R10. Director at the ministry of ICT. Female.

Jordanian consumers' lack of awareness about EC constitutes another personal factor that increases the concern of consumers about their personal information. Respondents mentioned the issue of consumer awareness as a factor that influences EC in Jordan. When the researcher asked them about these barriers they answered:

"Awareness on the part of the consumers about the benefits of electronic commerce is one of the main problems that affect its success in Jordan. We conduct seminars to increase this awareness in merchants, citizens, students, and legal experts." R7. Director of EC strategy in the ministry of Trade and Industry.

From this respondent's answer it is clear that a lack of awareness constitutes a problem for consumers in the e-commerce field, but the main issue with regard to the lack of awareness is the consumer's ability to ensure whether the website is secure or not. If they are not aware about how e-transactions can be conducted and the differences between secure and non-secure websites, then they will not be willing to provide their personal information online. One online consumer talks about his awareness in EC activities by saying:

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> *"[...] the website should be secure, and the consumer should be aware about this issue. There are a lot of secured websites but it is the consumer's duty to know if the website is secured or not. He/she can be assured by [...] the dealer's name, like the displays in Amazon for example. Otherwise, the consumer should be aware about the website he or she going to make a deal with. It should be secured and safe. "* R1. Engineer, male, consumer, 30s

Another consumer who does not like dealing online responds to the question about whether she knows how to ensure if the website is secure or not, saying:

> *"I do not know how to ensure if the website is secure or not."* R3. Graduate female, 20s.

Continuing the data collection process, the researcher met an expert from the Amman Chamber of Commerce and asked him about the impact of awareness on the consumers' willingness to buy online; he comments by saying:

> *"With regard to the digital certificate for example, if the consumer has any awareness about this then he/she should not buy from any website which does not have it, because it could be fake. To be honest, the Jordanian consumer has no idea about this certificate and I argue that some professional users of the internet also have no idea about the padlock sign."* R12. Director in Amman Chamber of Commerce.

As a result, the following respondents see there is a responsibility for the government to increase consumers' awareness about electronic commerce and encourage them to buy via the internet. If consumers become willing to deal online they will be less concerned about their personal information. Respondents argue that it is the role of government to solve this problem, as in the following example:

> *"We can increase the consumer's awareness of EC by conducting seminars in the schools and universities. One module about EC will be taught in the universities to increase this awareness. Additionally, we can increase their awareness through the media. If we do that, consumers will be convinced about EC and they will be willing to buy through the internet."* R7. Director of EC strategy in the ministry of Trade and Industry.

The way that Jordanian consumers perceive electronic commerce influences their willingness to provide their personal information. This is revealed from their desire to

see the product in question and to deal face to face with the seller. Besides this concern, they have received warnings about providing their personal information through the internet, which generates specific feelings about using the internet and electronic commerce. The lack of awareness of consumers creates these concerns and makes them see no benefits in using electronic commerce. Therefore, on the one side, a higher awareness on the part of the consumer about electronic commerce could decrease his concerns about personal information, and his motivation towards purchasing online could be increased. On the other hand, a lower awareness will increase his concerns about electronic commerce, and as a result his motivations towards EC will be decreased.

Finally, EC implementation in Jordan has been influenced by the privacy concerns of consumers which, in turn, are affected by several factors. However, the table below summarises these factors that emerged from the consumers' perspective.

Age of consumer	Educational level
Trust	Confidence
Experience	Language
Ability to use computer and internet	Attitudes of Jordanian consumers
The lack of awareness in the minds of Jordanian consumers	

Table 7-1: Factors influencing privacy concerns from consumers' perspective.

From the consumers' viewpoint these are demographic factors, consumers' characteristics, and personal factors. The next part of this chapter will discuss the factors that influence privacy issues and their impact on electronic commerce implementation from the private sector viewpoint.

7.2.2 Privacy concerns based on the private sector perspective (Open Coding Stage)

Three categories have been revealed as pertaining to the private sector's perception: organizational, technical and economic factors. These three categories will be discussed

in more detail in this sub-section, to explain how these factors influence privacy concerns of consumers which as a result influence electronic commerce implementation in Jordan.

7.2.2.1 Organisational factors

With regard to organisational factors, two concepts have been revealed by respondents about the factors encountered by Jordanian companies concerning privacy issues. Through the open coding stage and the breaking down of data it is found that privacy concerns are influenced by the lack of awareness about EC inside companies and the readiness of companies to practise e-commerce. These factors affect consumers' concerns towards providing their personal information online, as will be discussed and, as a result the further development of electronic commerce.

With regard to the awareness of electronic commerce inside companies as a potential problem for developing EC in Jordan, respondents have mentioned the possibility of developing EC if companies have enough awareness about the benefits of electronic commerce on their activities. Otherwise, it is difficult to talk about the desired development.

The impact of electronic commerce on the scale of companies' operations is still not clear for businesses, it is argued by respondents. Some of them realize the potential benefits of electronic commerce on their activities, but the majority of Jordanian businesses do not realize what impact EC might have. This is displayed in the discourse of one respondent, who works in the Royal Jordanian Airlines Company. This company released the impact of EC technology on their activities, and this is shown in the conversation of the researcher with a representative of this company when she said:

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> *"The main benefits of EC on our work are the ability to reduce the consumption of effort, time, and costs. We encourage our consumers to buy through the internet by offering them a price that is lower than the price of buying through our office."* R9. EC company's representative, female

As seen, because this company realises the importance of EC on their activities it accepts the concept of dealing online and makes an effort to convince consumers about the benefits of dealing online. Moreover, if consumers are convinced about that they will not be worried about providing their personal information online. Therefore, they should realize the impact of EC on their activities because the time of EC as an important mode for transactions is coming. Further explanations were mentioned by the representative of the EC programme in the government when he revealed that:

> *"This era is the time of technology and electronic commerce. Merchants should improve themselves in order to be able compete with others. They should be convinced about the benefits of electronic commerce, such as the reduction in advertising costs".* R7. *Director of EC strategy in the ministry of Trade and Industry.*

So, do Jordanian companies have sufficient awareness about the benefits of electronic commerce? The answer to this is linked with the number of companies that practise EC. According to the respondents' replies, if they engage in it, then they are convinced about its benefits. So, if they are not convinced about practicing EC and selling their products online then Jordanian consumers have to buy their goods directly from the shop. However, when the researcher asked the following respondent about the number of companies that practise EC and the reasons that prevent most Jordanian companies from using EC, he said:

> *"There is no government department that can give us accurate records about EC in Jordan. This because each company engages in EC by itself and on this matter they are not willing to publish their records. But from our records as a Chamber of Commerce, 4% of our members have a website, and 1% of them practice EC."* R12. *Director in Amman Chamber of Commerce.*

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When the researcher asked the same respondent about the relationship between awareness among companies and their ability to persuade consumers to buy online, he replied that selling online means that most of products' prices should be less than prices in the physical shop. This is because the main benefit for EC on the companies' activities reflects on the cost of practicing its activity, which should lead to reduction in the price of products. However, in the Jordanian context this respondent said:

> *"One of the main barriers is the price of the product or service which is advertised online. Sometimes it is more expensive than the price from the shop."R12. Director in Amman Chamber of Commerce.*

The aforementioned example shows the lack of awareness within companies about strategies for conducting electronic commerce effectively. This decreases the number of people who trust such companies and makes them prefer purchasing directly from the shop due to their concerns about providing personal information to a distrusted party. This lack of awareness requires the public and private sectors to work together to raise the level of understanding inside companies. This was displayed in respondents' answers, for example one who said:

> *"We are working with the private sector to increase awareness on the part of their members. We are working with the Chamber of Commerce, the Chamber of Industry, and the banking institution. The main interest for us is to encourage them to use e-commerce by explaining the benefits of EC on their activities." R11. Ex Director of EC strategy in the ministry of Trade and Industry.*

As a result:

> *"if the companies have realized the benefits of electronic commerce on improving of their activities, and then we will see a large number of companies willing to sell their products and services online. The private sector should be encouraged to practise EC. R10. Director at the ministry of ICT. Female.*

The next organisational factor influencing Jordanian companies to practise electronic commerce is their E-readiness. Respondents have mentioned that Jordanian companies

are still not ready to practice electronic commerce. This makes respondents more concerned about providing their personal information to Jordanian companies and is why they prefer dealing with global companies, due to the lack of trust between the Jordanian consumers and companies. For example, consumers need to ensure that Jordanian companies are able to implement all procedures that protect the online transaction and fulfil the requirements of delivering the purchased goods or services as soon as the transaction is completed. However, in Jordan the researcher met some different authorities in EC matters from the public and private sectors and they speak in specifically about the readiness of Jordanian companies to practice EC. For example, the first one said:

> *"Jordanian companies are not ready to practise EC. This is because practising EC necessitates procedures that should be followed to enable companies to adopt e-commerce in their activities." R12. Director in Amman Chamber of Commerce.*

In this regard, for example, the delivery service – as will be seen in 7.2.3.1 - influences the implementation of EC in Jordan, he adds:

> *"We still face some problems with delivery services, because delivering the product takes at least one week which makes the consumer buy the product from the shops. The target of e-commerce is simplicity for consumers; otherwise they will buy the product offline." R12. Director in Amman Chamber of Commerce.*

The seond expert from the public sector mentioned another example which is actually embedded in the companies' websites, he said:

> *"The problem lies in the lack of Arabian websites that are supported by Jordanian companies. Consumers would prefer the existence of such websites." R10. Director at the ministry of ICT. Female.*

A third expert from the public sector emphasised that another hurdle is embedded in the diffusion of the credit card as a method of payment due to insufficient awareness among people on the benefits of using credit cards:

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> *"One of the main hurdles is in <u>the banking sector where the credit card is still not used widely in Jordan. This is because Jordanians think that dealing with cash is more secure than using a credit card</u>." R7. Director of EC strategy in the ministry of Trade and Industry.*

Awareness within companies towards electronic commerce and the readiness of these businesses can be grouped in the same category. As respondents stated, where awareness exists inside companies regarding electronic commerce, the number of companies willing to practise EC will be increased. As a result, companies will fulfil the requirements of practising electronic commerce and the consumers will be more willing to provide their personal information for such companies. However, if companies perceive that electronic commerce adds nothing to their activities, they will not be eager to implement the requirements of engaging in electronic commerce and the consumers will be even more perturbed about providing their personal information to those companies.

7.2.2.2 Technical factors

One phenomenon has been mentioned by respondents with regard to technical factors. They have talked about infrastructure as a factor influencing the private sector to enter the e-commerce environment and, as a result, affecting the consumers' concerns towards their privacy and providing their personal information online.

Respondents have talked about infrastructure as a factor. The infrastructure concept according to the Cambridge dictionary is "basic systems and services that a country or organisation uses in order to work effectively". A director in Amman Chamber of Commerce summarised the Jordanian situation by saying:

> *"<u>The infrastructure environment is not complete</u>. I mean by infrastructure the communication tools, payment gateway, digital certificate, and regulations. <u>With regard to the payment gateway, it forms a problem for our companies because they have to source it from foreign</u>*

As a result of this weak infrastructure he commented that:

"From our records as a Chamber of Commerce, 4% of our members have a website and 1% of this number practise e-commerce." R12. *Director in Amman Chamber of Commerce.*

For those that have a website, the lack of Arabian content on the website constitutes a further problem, as another expert from the public sector explained:

"The problem is the lack of Arabian content for the existing websites. Language constitutes a problem for some consumers." R10. Director at the ministry of ICT, Female

Another technical factor is embedded in the payment tools. On the one hand, this is rooted in the low number of citizens who hold credit cards and their willingness to use them online, and in payment tools which still constitute a problem for practising e-commerce in Jordan. This situation, according to the following expert from the public sector, is due to the fact that companies are still afraid of using payment tools. For that reason they give their clients a pre-paid card and waive any responsibility if this card is hacked. This action makes consumers more worried about participating in such activities. For example, one respondent raised this issue and said:

"There is a problem in the electronic payment. This is because the banks give their clients a pre-paid card with a limited amount of money and free themselves of any responsibility for it." R10. Director at the ministry of ICT. Female.

However, the researcher continues comparing and collecting data from people from the private sector, particularly those who could give more details about the banking sector in Jordan. One director in Amman Chamber of Commerce is not worried about payment gateways which according his answer is not a big problem and will be resolved with time and will not impede EC implementation in Jordan:

will be resolved with time but hard work is needed to do that. For

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example, <u>with regard to the payment gateway, Jordanian companies have</u> <u>been able to source this from Jordanian banks over the last two</u> <u>years</u>"R12. Director in Amman Chamber of Commerce.

Therefore, as the following respondent mentions, the payment gateway will not be a big problem for EC implementation but companies have to fulfil all requirements that protect personal information from invasion. At this point, if the companies want to adopt e-payment tools they have to ensure the protection of consumers' personal information. They should apply the procedures that protect consumers' personal details. Companies wanting to practise e-commerce should consider these procedures. The following respondent talked about security as a requirement for protecting privacy. He said,

"The <u>important thing is the protection of the personal details of</u> <u>consumers who put their details online</u>. <u>A company should follow all</u> <u>procedures that make it safe and secure</u>." R15. Legal expert.

According to respondents, Jordanian companies realize the importance of this issue and have taken into consideration the procedures that make the consumers' details safe and secure. For example, the researcher met the following consumer, and when he answered the questions he talked about his experience in working with one of the main telecom companies in Jordan, by saying:

"<u>As a telecom company in Jordan we have an e-payment service if</u> <u>consumers want to pay their bills online</u> and <u>we carried out all the</u> <u>procedures that protect consumers and their privacy from hacking</u>." R1. Engineer, male, consumer, 30s

All respondents linked security and privacy and they confirmed the positive impact of using security tools for the protection of consumers' personal information in making e-purchase safe and secure. To ensure the fulfilment of security and privacy protection, there is a framework that contains globally agreed standards that should be adopted to

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fulfil the requirements of online transactions. For example the following experts from the public sector said,

> *"On the global level, there are ten agreed standards for companies wanting to deal in payment cards. For example, these requirements include the protection of the credit card holder's name, using a security channel, protecting the card number, and using a firewall. In Jordan, we demand these requirements and add some extras." R6. EG programme expert at ministry of ICT.*

Another respondent stated that:

> *"Each website should provide a privacy policy which illustrates its duties with regard to protecting the consumer privacy." R6. EG programme expert at ministry of ICT.*

However, due to the to the lack of Jordanian companies that fulfil these requirements the concern of Jordanian consumers about privacy is high, and therefore, electronic transactions in Jordan are limited to the banking and shipping sectors. One respondent said:

> *"In Jordan, we can see electronic transactions in the banking and shipping sectors. This is because the companies in these sectors have highly secured systems." R15. Legal expert.*

As a consequence, if companies have secure systems and receive a digital certificate from a Certificate Authority (CA), then, as the following respondent says, the consumers will trust these companies and buy from their websites.

> *"If the companies adopt a highly secured system to protect their website, then the consumer will trust the website and be convinced that it is secured and certified." R8. ministry of Justice representative.*

Therefore, the quality of the infrastructure is not good enough to encourage engagement in electronic commerce in Jordan. This shortfall leads to an increase in consumers' privacy concerns with regard to engaging in electronic commerce. Where the organisation does provide the basic systems and services that will enable EC to work

effectively, then the consumer's concerns about privacy will decrease and they will become motivated to purchase online.

7.2.2.3 Economic factors

Internet penetration, tax and customs and marketing strategy are the economic factors revealed by respondents when they talk about what induces Jordanian companies to include electronic commerce in their activities. These factors are related to organisational and technical factors which together affect the consumers' trust towards dealing online and, as a result, their privacy concerns.

When the researcher asked respondents about these factors, they mentioned that internet penetration is one of the main factors. As will be seen through comparing the emerged concepts from different experts in EC matters from public and private sectors, poor internet penetration impedes EC implementation in Jordan and as a result the consumers' willingness to provide their personal information online. For example, an EC's representative reveals that internet penetration affects the spread of their activities in Jordan, she said:

> *"Internet penetration is one of the main reasons that prevent our consumers from buying through our website. This is because they do not have the internet in their homes." R14. An EC company' representative.*

The researcher continued to meet people from the public sector, including a person who is responsible for the EG programme in the ministry of ICTs and asks her about the governmental studies on the communications sector in Jordan: she replied:

> *"One study conducted in 2009 mentioned that internet service covered 30% of the Jordanian population. This is a good rate compared with our neighbours but we are looking for more. There are two factors that influence the spread of the internet; i.e. infrastructure and cost. With regard to the infrastructure, the government is working to resolve this factor by issuing decisions that encourage the spread of the internet in*

> *Jordan, such as encouraging competition between companies in this sector."* R10. Director at the ministry of ICT. Female.

In addition, during the data collection process, the researcher returned to the literature review and found a recent study conducted by the Harris Interactive Global Network of Independent Market Research Firms. It was produced in 2009 as a part of the United States Agency for International Development (USAID) programme in Jordan. This study revealed that

> *"Thirty-six percent of Jordanians use the internet, an increase of 100% from 2007"*[51]

At this stage of data collection, the infrastructure sector in Jordan as viewed in the previous sub-section does not support the spread of the internet in all 12 governances. Therefore, a quick search in the formal published studies suggests an analysis of the cost of internet subscriptions, which according to the records of the Hashemite Kingdom of Jordan Department of Statistics, 2010 report, 55% of Jordanian families who do not have computers in their homes attribute this to their financial capacities. This report shows that the average monthly income for 50% of Jordanian families is less than JD400 (£350), which affects Jordanians' willingness to purchase a computer and participate in electronic commerce activities. This is clear from the same study which attributes the unwillingness of Jordanians to use the internet to several factors: *"They do not need it; they do not have computers in their homes, and the high internet subscription fees."*

However, the interviewees in the following interviews agreed with these studies, but at the same time they reveal that good progress has been achieved year on year, and this is clearly displayed in this respondent's discourse:

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[51] More details are available from:
http://www.harrisinteractive.com/NewsRoom/PressReleases/tabid/446/ctl/ReadCustom%20Default/mid/1506/ArticleId/385/Default.aspx.

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> *"There is some progress related to internet penetration in Jordan. The number of users is greater than the users in the previous year. Besides this, the internet subscription prices have decreased sharply." R7. Director of EC strategy in the ministry of Trade and Industry.*

Another qualified person from the private sector agrees and added that:

> *"Computer prices and internet subscriptions have broadly reduced." R12. Director in Amman Chamber of Commerce.*

The next economic factor is related to companies' concerns about taxation and customs issues. This issue affects companies' willingness to enter the world of electronic commerce due to controversial and unclear taxation policies in Jordan. In addition, bad faith among some Jordanian companies and the lack of awareness among the Jordanian companies about EC, creates confusion among companies and consumers about taxation and customs rules which leads to an unwillingness to deal online. Illustrating this point, the EC programme director in the ministry of trade and industry said:

> *"We do not have any kind of contact with companies that practise electronic commerce in Jordan. This is because they are not willing to provide their activities in this regard for taxation reasons. Some of the companies would rather not pay tax and they think practising electronic commerce would push them to provide their activities and benefits." R7. Director of EC strategy in the ministry of Trade and Industry.*

Moreover, marketing strategy is another problem. As discussed elsewhere in this chapter, most companies do not have enough awareness about the strategies that should be followed to encourage consumers to deal online. For example, the price of an online product should be on most occasions less than the price in the physical shop. But, Jordanian companies due to the lack of awareness and knowledge about how to market their online products sell these products at prices more expensive than its partners in the shop. As a result consumers prefer buying directly from the shop rather than the internet. This emerged from a director in Amman Chamber of Commerce when said:

> *"Jordanian companies should be aware of how to market themselves. If they do that they will encourage consumers to buy from their websites. I*

The above two examples illustrate that Jordanian consumers distrust the Jordanian companies and this makes them more concerned about providing their personal information online to these companies, due to bad faith or less experience in e-commerce activities.

Finally, internet penetration, tax and customs, and marketing strategies are three economic factors that influence the willingness of businesses to practise electronic commerce in Jordan and affect the consumers' willingness to deal online. These factors affect the consumers' willingness to provide their personal information due to lack of experience and confidence in using the internet as a result of low internet penetration in Jordan, leading to a lack of experience of using the internet. Besides, the unstable rules of customs make Jordanian consumers less inclined to enter into online transactions and, sometimes, pay more than the price of the product, as one respondent said, if they buy it directly from the shop.

Finally, from the private sector's viewpoint, privacy concerns of Jordanian consumers are influenced by several factors, and the table below summarises these factors.

Lack of awareness within companies in Jordan about electronic commerce	Readiness to practice e-commerce
Infrastructure	Internet penetration
Tax and customs issues	Marketing strategy

Table 7-2: Factors influencing privacy concerns from private sector perspective.

As mentioned above, these factors range across organisational, technical and economic factors and affect the consumers' willingness to provide their personal information online. In addition, those factors influencing privacy concerns of consumers and their

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impact on EC implementation from the public sector's viewpoint will be discussed in the following sub-section.

7.2.3 Privacy concerns based on the governmental perspective (Open Coding Stage)

Two categories have been revealed with regard to the public sector's perception of the factors that influence EC implementation in Jordan and privacy concerns of consumers about providing their personal information online.

7.2.3.1 Governmental factors

The phenomenon of governmental procedures has shown respondents' viewpoints with regard to governmental factors. Governmental procedures embrace logistical factors and their impact on the readiness of the government to encourage companies to engage in electronic commerce, and encouraging consumers to participate online and provide their personal information. A second factor is related to the electronic government programme and its impact on the development of electronic commerce in Jordan by encouraging citizens to buy governmental services online and habituate them to provide their personal information through the internet. These two factors could decrease the concerns of Jordanian consumers towards their personal information.

Respondents have talked about logistical factors that influence the government's willingness to adopt electronic commerce. They discussed delivery issues and internet penetration in Jordan as the main drawbacks. For example, delivery services in Jordan are not in a good position because it is not easy to reach a required address due to the lack of a digitisation system in Jordan. To make it easier delivering the purchased product, the seller has to know clear information about the address of the buyer, such as the building number and street name. However, the digitisation system is still not

implemented in Jordan except in 3 governances out of 12 in Jordan. This discourages Jordanian consumers from buying online and providing their personal information with a non-delivery risk. This factor was revealed by the current and Ex- EC programme directors in the ministry of trade and industry when they said:

> *"In the past, we encountered a problem with delivery matters because people's addresses were unclear. But now the Amman municipality has issued an addressing policy that gives each building and street a specific number and name respectively." R7. Director of EC strategy in the ministry of Trade and Industry.*

And

> *"In related to delivery matters, Jordan has become digitised through satellite technology and all companies now have access to the Jordan map, which makes delivery easier than before. Besides this, the Amman municipality has issued an addressing policy that gives each building in Amman a number and gives each street a specific name. In the coming years, all Jordan will be covered by this policy." R11. Ex Director of EC strategy in the ministry of Trade and Industry.*

From this example, it is clear that not all cities in Jordan have yet applied the addressing policy as happened in Amman. This leads to the disquiet of people in other cities towards shopping online and providing personal information if there is a possibility of non-delivery. The long time that the purchased item needs to be delivered is also a problem and this was explicitly stated by a representative of Amman Chamber of Commerce when he said.

> *"We still face some problems with delivery services, because delivering the product takes at least one week which makes the consumer buy the product from the shops. The target of e-commerce is simplicity for consumers; otherwise they will buy the product offline." R12. Director in Amman Chamber of Commerce*

Another factor is internet penetration which constitutes a barrier for the practice of electronic commerce in Jordan. This factor has been discussed in the previous sub-section, particularly when discussing the economic factors. However, further data collection was needed to explain this factor from the government's view of point. When

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meeting a director of the EG programme at the ministry of ICT, she clarified that the problem is the centralisation of this service in the capital – Amman – which makes people in other cities more concerned toward their personal information due to their limited experience and confidence in using the internet. She says:

> *"One of the main barriers is the centralization of the internet in the capital. To resolve this problem, the government is spreading knowledge stations across all the Jordanian provinces to teach the citizens internet use skills. Besides this, the government has given telecommunications companies some customs exemptions if they spread knowledge stations across all Jordanian provinces."* R10. Director at the ministry of ICT. Female.

The second factor is related to the importance of the successful e-government programme and its impact on the willingness of consumers to participate in EC activities and provide their personal information and, as a result, on the success of electronic commerce implementation in Jordan. Respondents from the public sector link the success of EC on the success of EG implementation. For example the ex director of EC strategy in the government clarified that:

> *"The success of the e-government programme will affect the success of e-commerce. This is because when Jordanian citizens are habituated to buy governmental services online, they will be encouraged to practise electronic commerce."* R11. Ex Director of EC strategy in the ministry of Trade and Industry.

It is obvious from his response the clear understanding for the impact of EG programme's success on EC implementation. But the researcher asked another respondent who is working in the EG programme at the ministry of ICT to ask him about EG implementation in Jordan he answered that negative signs have appeared and affected the government's credibility with regard to achieving this vision. For example, he raised two examples that show the lack of commitment within the government body that affects successive e-government initiatives. This respondent said:

"When we talk about e-government, we have to talk about business continuity, particularly if there is an interruption for the service due to force majeur *such as war or earthquakes. We should have an emergency plan to deal with this matter. To be honest, we issued the national strategy to guarantee business continuity, but it has become frozen without any reason."* R6. EG programme expert at ministry of ICT.

This respondent adds that the Jordanian government launched a national e-government initiative in 2000 and, after 10 years, the e-government programme is still in its infancy in Jordan. He explained that this means citizens are not habituated to e-government services due to the lack of seriousness in the government to implement them, and the above example illustrates this.

However, the low level of penetration of e-government services in Jordan makes citizens less experienced in using the internet to deal online, so they are less habituated to ordering online and, as a result, they are less interested in providing their personal information online due to their lack of experience. Respondents mentioned that the shortfall in solving logistical issues and implementing the e-government programme affects privacy concerns among consumers due to their lack of confidence and experience, as elaborated in sub-section 7.2.1.2. It is obvious, according to respondents, that the success of e-government is highly dependent on the availability of logistical services; if the logistical prerequisites are fulfilled then e-government implementation will be successful. Correspondingly, the success of e-government means that electronic commerce requirements will be fulfilled and consumers will be more willing to provide their personal information online. For example, if citizens become habituated to buying government services online, then they will be better able to participate in electronic commerce.

7.2.3.2 Legal factors

The second factor is the effectiveness of the legal environment in Jordan in regulating the issues related to electronic commerce in general, and privacy issues in particular. One category has been revealed from respondents' replies regarding legal factors that influence the willingness of consumers to provide their personal information and undertake electronic commerce in Jordan. This factor is the lack of regulations, which in consequence, affects the development of legal expertise in electronic commerce matters.

The lack of regulations is one of the legal factors that influence electronic commerce development in Jordan. On the one hand, respondents talked about the fundamental regulations that should be enacted concerning electronic commerce. On the other hand, they concentrated on the privacy issue as the main factor that influences consumers' willingness to practise electronic commerce and which needs to be regulated by the law.

When the researcher asked a legal expert in EC matters about the capability of the existing regulations to regulate electronic commerce in Jordan, he explicitly states that:

> *"The existing regulations <u>are not enough </u>to regulate electronic commerce in Jordan."* R15. Legal expert.

The ex director of EC programme in the government goes further and states the required regulations in the field of EC which are still not enacted to push both consumers and companies to practise electronic commerce. For example, he affirms that:

> *"<u>Our regulations are not enough to regulate electronic commerce in Jordan</u>. Now we are working to enact several regulations. We are working on <u>cyber crime law</u>, the <u>electronic transaction act</u>, <u>consumer protection law</u>, <u>digital certificate law</u>, and <u>electronic signature law</u>."* R11. Ex Director of EC strategy in the ministry of Trade and Industry.

Respondents agree that one of the main existing regulations is the Temporary Electronic Transactions Act 2001 No.85. This law is the cornerstone of business regulations with

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regard to electronic commerce. This appears in the following respondents' discourse in such statements as:

> *"The basic regulation in regard to electronic commerce is the Temporary Electronic Transactions Act of 2001."* R5. Legal expert

However, through continuing the data collection process and interviewing more experts from the public sector, a lot of drawbacks to this law are notable. For example, it is a temporary law, enacted a while ago and needs to be updated and amended to address all matters relating to electronic commerce. Additionally, it fails to regulate issues regarding privacy concerns and digital certificates. For example, the director of the EC programme at the government said:

> *"The Temporary Electronic Transactions Act was enacted in 2001 and it is a long time ago, especially taking into consideration that this law is a terminology draft of the UNCITRAL model law. For example, this law does not contain any regulations on people who commit cyber crime."* R7. Director of EC strategy in the ministry of Trade and Industry.

The researcher also met another expert from the public sector and asked her specifically about the ETA nd its influence on EC development in Jordan. Her response was that the government is working on enacting a new draft of the Electronic Transactions Act. This regulation was supposed to be issued in 2010 but, up to the present time, nothing has happened with this law. However, the suggested revised Act contains some relevant recommendations, as this respondent revealed:

> *"The proposed Electronic Transaction Act that will be enacted has determined how transactions will be protected. This happens through issuing the accreditation and licensing bodies' electronic authentication and the issuance of documentation system. This law will grant companies a digital certificate that gives the consumers a sense of protection when dealing online. Several regulations will be enacted such as the consumer protection law, digital signature law, and the Data Protection Act. The Electronic Transactions Act that will be enacted states that the Data Protection Act should be enacted."* R10. Director at the ministry of ICT. Female.

It can be seen from this interviewee's reply that a lot of regulations with regard to EC should be enacted, but one of the fundamental regulations, according to the interviewees, that must be enacted concerning electronic commerce is the Data Protection Act. Continuing data collection and meeting further authorities to speak about the data protection act revealed that the main reason for this law, according to the respondents, is to give consumers greater protection when they shop online. When the researcher asked them about the current situation regarding privacy issues in Jordan, they answered along these lines:

> *"Legal protection is very important to encourage electronic commerce in Jordan. So, if we have technical protection for privacy without legal protection, then this will influence the development of electronic commerce in Jordan."* R15. Legal expert.

> *"A lot of companies want to practise electronic commerce in Jordan, but they are not keen to do so, due to the lack of regulations that regulate the privacy matter."* R6. EG programme expert at ministry of ICT.

However, according to the following interviewee, and to achieve legal protection for privacy concerns, the government will take diverse procedures to protect the consumers' right to privacy and promote electronic commerce in Jordan. :

> *"Some efforts on the road map with regard to privacy issues will be taken."* R6. EG programme expert at ministry of ICT.

Following this, he adds

> *"We have a national strategy for electronic commerce issued in 2008. We recommended issuing an appendix for the policy of ensuring safety and security of information specified in electronic commerce. Nothing has happened in regard to this policy."* R6. EG programme expert at ministry of ICT.

From the above, it is obvious that privacy regulations have to be enacted to protect the consumers' privacy, but at the same time, interviewees state that consumers are responsible for protecting their own privacy by fulfilling all requirements that keep them safe from incursion. This appears in this respondent's statement:

> *"The protection of the right to privacy is a cooperative matter between the government and citizens. From the governmental side, there are some regulations that should be enacted. From the citizens' side, there should be an understanding of these regulations." R5. Legal expert*

The lack of regulations in the EC and data protection issues leads to a lack of legal expertise in EC matters, due to lack of knowledge and awareness about such regulations, which means a lack of cases in the Jordanian courts and, in consequence, Jordanian judges and lawyers lack pertinent experience. For example, this legal expert clarifies this by saying:

> *"We do not have judges and lawyers qualified in electronic commerce matters. They are not trained to understand the entirety of issues related with electronic commerce." R5. Legal expert*

However, this shortage in the number of legal experts makes the government responsible for conducting training sessions for both judges and lawyers to render them qualified to settle the kinds of cases that are likely to arise in the Jordanian courts. This is shown in the following interviewees reply when he stated:

> *"After enacting all the regulations we will conduct training sessions for the judges and lawyers to increase their awareness about electronic commerce and these regulations." R7. Director of EC strategy in the ministry of Trade and Industry.*

To conclude, EC implementation and privacy concerns have been influenced by several factors. One of these factors, from the public sector's viewpoint, is governmental procedures. The table below summarises these factors.

Logistical factors	Lack of regulations
The impact of successive e-government initiatives	

Table 7-3: Factors influencing privacy concerns from public sector perspective.

The government plays a significant role in the legislation process, because any law should be sent as a draft from the government to the legislators, as stated in the constitution. Furthermore, the government is responsible for implementing the

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provisions of the enacted laws. This responsibility constitutes the issuing of appropriate regulations that support effective implementation. For example, Article 41 of the temporary electronic transaction act 2001 states that the "*prime minister and ministries shall be responsible for the implementation of the provisions of this law*." As a result, the lack of laws and regulations creates deficiencies in terms of legal experts in the field of privacy and electronic commerce matters, and both of these factors influence electronic commerce implementation in Jordan. However, the next section will discuss the relationship between the categories and sub-categories that have emerged from the open coding stage.

7.2.4 Relationships between categories (Axial Coding Stage)

As discussed in 6.4, the next step in the analysis process is conducting the axial coding procedure where the connection between categories and sub-categories is identified. This connection, as discussed before, is achieved through applying the paradigm model.

As discussed in the open coding stage, eight categories appeared, which enabled the researcher to initially categorise the emerging concepts. The number of categories in the axial coding stage will decrease by comparing and re-categorising similar categories into one by using the constant comparison method and theoretical coding, which facilitates the development of theory as Urquhart and colleagues' guidelines explain.

Therefore, the initial categorising has been amended because of the new data that was collected and analysed in the axial coding step due to continuing theoretical sampling and constant comparison methods. Three categories emerged from the axial coding step. All factors and characteristics that related to the consumers were grouped under one category named the ***consumers' attitude*** category. All the factors that related to the

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private sector and business were re-categorized and grouped under one category named *companies' readiness* to practice EC. The last category that emerged from the axial coding stage was named *government response*. These three categories are discussed in section 6.4 with respect to the implementation of the paradigm model. These three categories will be discussed in the following sub-sections.

7.2.4.1 Consumers' attitudes

The central phenomenon chosen in this sub-section is the Consumers' Attitudes towards providing their personal information online and purchasing online. This category is chosen because it is able to put data together after open coding through making connections between categories. For example, the director of the EC programme in the government mentions the impact of consumers' attitudes about providing their personal information online.

> *"We do not see a large number of e-transactions in Jordan. This is due to the belief among the consumers that this kind of transaction is not secured and there is possibility for another party to know their personal details. The main concern for them is their credit card details which could be under threat." R7. Director of EC strategy in the ministry of Trade and Industry.*

This was confirmed by one Jordanian company's representative by saying that

> *"We have a secure website but the problem is the mentality of our consumers. Some of them have a credit card but they are not interested to use it through the internet due to their concern about their privacy which shaped in stealing of their personal details." R9. EC company's representative, female*

The event that leads to the occurrence of this phenomenon is the lack of awareness and knowledge - as discussed in sub-sections 7.2.1.1 and 7.2.1.3 about electronic commerce. This is because this lack in their awareness, described in figure 7-1 as R2, and knowledge, described in figure 7-1 as R3, affects their concerns about their personal information. For example, the researcher met an employee from the public sector and

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asked him about the impact of knowledge on consumers' attitude towards dealing online and providing personal information, he responded by saying

> *"We have some companies that sell through the internet. But <u>the problem is inside the people. They do not know about these companies</u> because the concept in regards to selling and buying through the internet is still vague."* R8. Ministry of Justice representative.

Another respondent mentions the impact of this drawback on the consumer's attitude, saying:

> *"We have a problem with electronic commerce implementation in Jordan, and <u>this is due to the lack of awareness inside the consumers about the ways to be ensured about the website if it is secured or not</u>."* R5. Legal expert

In addition, through constant comparison and theoretical sampling methods, trust was related as another causal condition that affects consumers' attitude toward dealing online and providing personal information through the internet, as discussed in sub-section 7.2.1.2. For example, the ex director of the EC programme in the government reveals the impact of trust, which is described in figure 7-1 as R1, on the consumer's attitude by saying:

> *"<u>So the trust and confidence are the main reasons that encourage me to provide my personal information to unknown party</u>."* R11. Ex Director of EC strategy in the ministry of Trade and Industry.

In addition, trust affects consumers' attitudes to buying online and this attributes to their concerns toward privacy, which depends on their willingness to buy from safe and secure places, e.g. the shop's physical location, rather than risky places, e.g. the shop's websites, where they are required to provide their personal information online. This is obvious from the following legal professional who mentions an example that clarifies the impact of trust on consumers' attitudes toward dealing online. He said:

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> *"Electronic transactions have started in the banking sector but <u>the trust inside the Jordanian citizens is not enough to encourage this field. So, they prefer to go to the bank and withdraw money from the teller and don't use the ATM</u>."* R15. Legal expert

The particular context within which the action/interaction strategies are taken to handle the phenomenon, according to the respondents' speech and displayed as R4 in figure 7-1, is the desire to increase the consumers' literacy in computer and internet use. In other words, the need to change consumers' attitude about their personal information becomes important when the skills in using both computer and internet differ from one consumer to another. In regards to the impact of computer and internet literacy, all respondents - as mentioned in sub-section 7.2.1.2 - who have not bought online have no awareness about how to ensure if the website is secure or not; this raises the need to increase their knowledge and awareness. For example, the following respondent, who works at Amman Chamber of Commerce, refers to the ability to use a computer and the internet.

> *"<u>The previous generation did not know anything about computers before they went to university to complete their studies</u>. This is different from the new generation where computer modules are taught from the primary stage at school."* R12 . Director in Amman Chamber of Commerce.

This lack of awareness and knowledge affects their ability to differentiate between secure and non-secure websites which, in turn, affects their attitude to purchasing and providing their personal information online. This is clarified in this respondent's answer when he said

> *"<u>There is still a duty on the consumer to know the tools that make him safe from hacking and to be ensured that the website is secured</u>. He can do that from the pad-lock sign, https portal, and from the age of the website. <u>And the problem is not all of our citizens know about these issues</u>."* R16. Employee at EC programme in the ministry of Industry and Trade.

In addition, there is a second set of structural conditions that affect the action/interaction strategies that pertain to the phenomenon under study, the intervening conditions. In this

example, according to respondents' replies, these conditions can be seen in the age of consumers. As mentioned by respondents in sub-section 7.2.1.2 and shown as R5 in figure 7-1, the targeted generation for the electronic commerce strategy in Jordan is the new generation. This is because it is easy to contact and deal with this generation, in schools and universities, compared with the older generation. For example, this respondent indicates the impact of consumers' age on their attitude to providing their personal information online.

> *"The age of the consumer is one of these obstacles. You can see that young people and the new generation are enthusiastic about using electronic commerce. In contrast the old generation is afraid of using technology.".R13 .* Director *at the ministry of ICT . Male.*

This was clearer when the director of the EC programme at the government mentioned that the young are more confident in using technology rather than older people due to their skills in using computers and the internet. He clarifies:

> *"The youth is more confident about using electronic commerce than their elders. Because they are more willing to use the internet to buy what they need, and they have greater awareness about information technology than others. In contrast, most of the older people have limited their use of the internet to getting information, rather than for buying." R7. Director of EC strategy in the ministry of Trade and Industry.*

Therefore, the action/interaction strategies that are undertaken to handle this phenomenon, according to respondents' recommendations, are concentrated in the type of education that is presented to students, as mentioned in sub-section 7.2.2.1. As described in figure 7-1 as R6, the government is able to introduce suitable modules that give students the required knowledge about electronic commerce and security issues. For example, one governmental representative said

> *"In regarding to the awareness, we are working with our partners from public and private sectors to solve this problem. We are working with the higher education ministry to change the legal and commercial modules about electronic commerce." R11 . Ex Director of EC strategy in the ministry of Trade and Industry.*

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Due to a lack of websites with Arabic content, the necessary ability to speak a second language, particularly English, will be achieved through teaching languages in the primary schools. If this happens - see R7 in figure 7-1 - then the outcomes of action and interaction will revolve around the increase in experience and confidence among individuals, which might change their attitude toward electronic commerce and allowing their personal information to be used online, as described in figure 7-1 as R8. However, the relationships between this category and all other sub-categories are identified in the following figure. Symbols R1, R2,...,R8 were labelled for each relationship and the illustration of each is shown below.
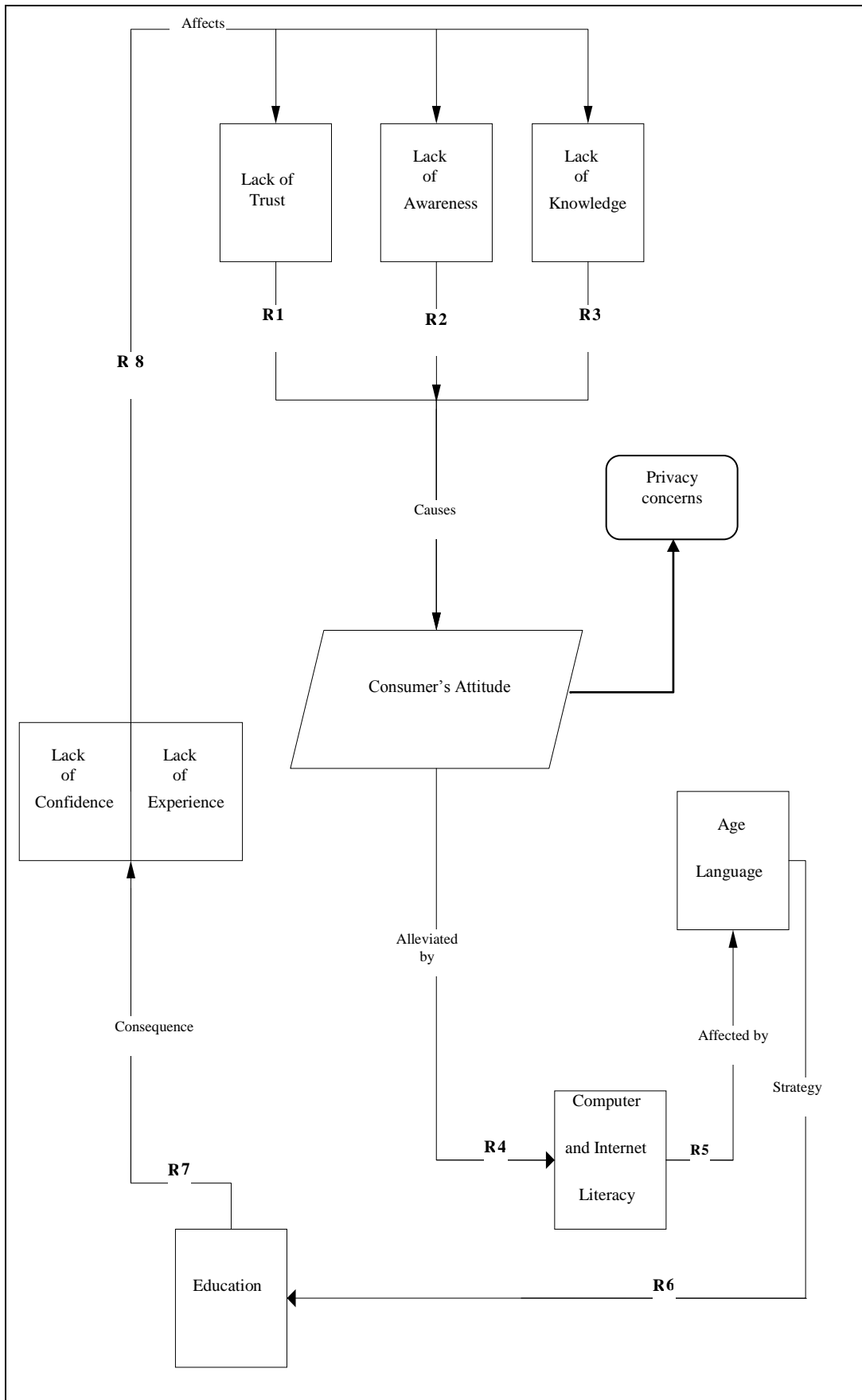
Figure 7-1: Relationship between Consumer's Attitude Category and its Sub-Categories.

"Relationship R1: consumer characteristic - trust" identifies the impact of consumer's characteristics, particularly the lack of trust among the consumers, on their attitude to providing personal information online.

"Relationship R2: personal factors - awareness" identifies the impact of personal factors, particularly the lack of consumers' awareness about EC on their attitude to providing personal information online.

"Relationship R3: consumers' attitude - knowledge" identifies the impact of the lack of consumers' knowledge about EC, on their attitude to providing their personal information online.

"Relationship R4: consumer characteristic - computer literacy" identifies that the capability to use a computer and internet, reduce their concerns about providing their personal information which is related to R7 through increasing confidence and experience among consumers.

"Relationship R5: demographical and consumer characteristic factors - age and language" shown that demographical factors, particularly age, and characteristics factors, particularly language, play a significant role in affecting the consumers' attitudes.

"Relationship R6: knowledge and awareness - education" identifies that those factors could be realized through focusing on the demographical factors, particularly the type and quality of education that is taught to students in schools and universities.

"Relationship R7: demographic factors - consumer characteristic" identifies the impact of arranged strategies on the consumers' characteristics, specifically their confidence and experience in using EC technology.

"Relationship R8: consumer characteristic - trust" identifies the impact of increasing the consumers' confidence and experience on their trust, knowledge and awareness about EC which changes their attitude to providing their personal information online.

The above figure clarifies how the consumers' attitude category is able to arrange data together in new ways after open coding by applying the paradigm model, and how this attitude affects the consumers' concerns toward their privacy.

7.2.4.2 Companies' readiness

The same process has been followed in identifying Company Readiness as a central category for its sub-categories. The chosen criterion, company readiness, is identified because of its impact on the consumers' willingness to provide their personal

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information online, which is caused by a lack of trust in Jordanian companies. The situation that leads to the occurrence of this phenomenon, labelled as R1 in figure 7-2, is the lack of companies which have sufficient infrastructure to practise EC. Jordanian companies - as mentioned in sub-section 7.2.2.2 - must fulfil the requirements of practising electronic activities, such as e-payment tools, security and privacy software, and websites written in Arabic. For example, a director in Amman Chamber of commerce is convinced that:

> *"Selling strategy is not easy because it needs a good and fast website which should be hosted in a good place. This website should be safe and secured and the consumer should be convinced about that. Payment gateway and delivery facilities are other factors"* R12. Director in Amman Chamber of Commerce.

In addition, the particular context, labelled as R3 in figure 7-2, within which the action/interaction strategies are taken to handle the criterion of, companiy readiness, is the desire to increase awareness of companies about electronic commerce. In other words, as discussed in sub-section 7.2.2.1, the need to increase the concerns of Jordanian companies' towards fulfilling the requirements of participating in E-activities requires an increase in their awareness about the benefits of EC on their profits and sales. This is shown from the number of companies that practise EC when this respondent said

> *"The main issue is to encourage companies to sell their products online. We have three or four companies in Jordan that sell online and this is a good start but still a little."* R11. Ex Director of EC strategy in the ministry of Trade and Industry.

Besides, the intervening conditions can be seen in the logistical requirements, shown as R2 in figure 7-2. As mentioned in 7.2.3.1, logistical services, such as roads and electricity, constitute a big drawback for EG and EC implementation. If these services are realised and fulfilled by the government side then the implementation of EG and EC

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will be improved. But, due to a poor digitalisation system in the majority of Jordan and weak delivery services, online purchases take longer than usual to be delivered to the consumers. One expert in EC matters from Amman Chamber of Commerce revealed that:

> *"We still face some problems with delivery services, because delivering the product takes at least one week which makes the consumer buy the product from the shops. The target of e-commerce is simplicity for consumers; otherwise they will buy the product offline."* R12. Director in Amman Chamber of Commerce.

Therefore, the action/interaction strategies, marked as R4 in figure 7-2; that should be used to handle this phenomenon, company readiness, are concentrated in the electronic government programme implementation. This is because the failure of EG affects the companies' readiness and, as a result, the consumers' experience in dealing online; this leads to an increase in their concerns about providing their personal information online. As discussed in sub-section 7.2.3.1, EG implementation has an important impact on the infrastructure sector and logistical services, described R5 in figure 7-2, which makes companies ready to practise EC as provided in sub-section 7.2.2.3 and labelled R6 in figure 7-2. This respondent believes that

> *"The success of the e-government programme will affect the success of e-commerce. This is because when Jordanian citizens are habituated to buy governmental services online, they will be encouraged to practise electronic commerce."* R11. Ex Director of EC strategy in the ministry of Trade and Industry.

Therefore, companies will be more capable of convincing consumers to trust dealing online, labelled R7 in figure 7-2, and purchase their products online with less concern about their personal information. However, the following figure explains the relationships between this category and all other sub-categories. Symbols R1, R2,...,R7 were labelled for each relationship and the illustration of each one is identified below.
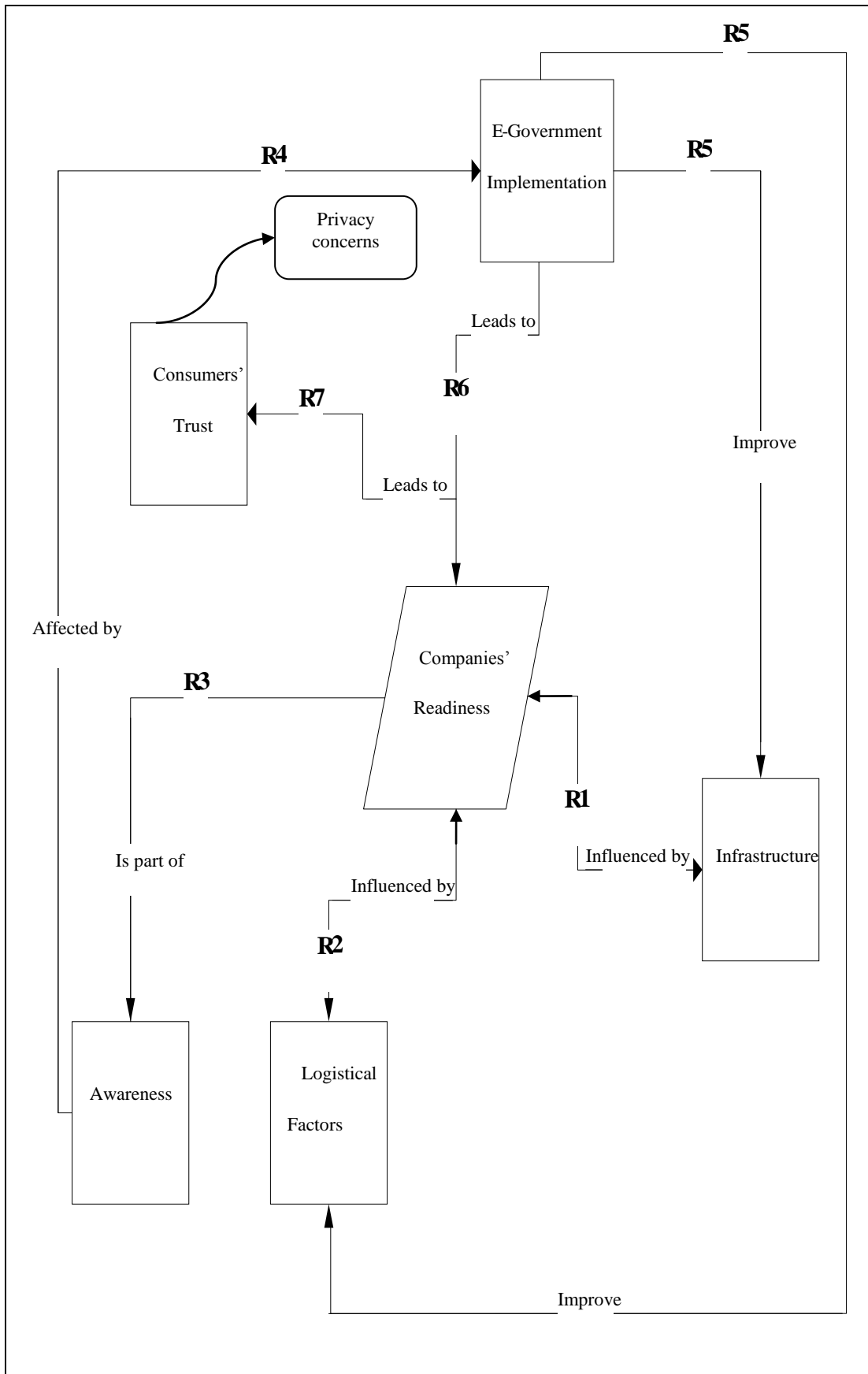
Figure 7-2: Relationship between Companies' Readiness Category and its Sub-Categories.

"Relationship R1: technical factors-infrastructure" identifies the impact of technical factors, particularly in the infrastructure sector, on the companies' readiness to practise EC in Jordan.

"Relationship R2: governmental factors-logistical factors" identifies the impact of governmental factors, particularly logistical services, on the companies' readiness to practise EC in Jordan.

"Relationship R3: organizational factors-awareness" identifies the impact of increasing awareness inside companies about the benefits of EC on their sales and profits, and how this affects their willingness to be ready to practise EC.

"Relationship R4: EG programme-companies attitude" identifies the relationship between implementing EG strategy in Jordan and the companies' desire to be aware about E-activities.

"Relationship R5: EG programme-logistical and infrastructure sectors" identifies the impact of implementing EG in Jordan on the improvements of the infrastructure sector and logistical services.

"Relationship R6: RG implementation-companies readiness" identifies the impact of EG services on the companies' readiness to practise EC.

"Relationship R7: companies' readiness-consumer" identifies the impact of companies' readiness to practise EC on the consumer's trust with regard to online purchasing and providing their personal information through the internet.

The above figure clarifies how the companies' readiness category is able to gather all other concepts by applying the paradigm model. It appears that consumers' trust in providing their personal information through the internet is influenced by the companies' capability to enhance the technical and non-technical requirements to solve all matters related to EC, particularly the privacy issue. For example, a Jordanian consumer said: "I do not buy anything from Jordanian websites, because I prefer to buy from global and famous website. Further, I still do not trust our Jordanian websites and to be honest I did not enter any of these websites." R1. Engineer, consumer.

7.2.4.3 Government response
The same process has been followed for identifying "government response" as a central phenomenon for its sub-categories. The chosen phenomenon for this example is

identified due to its impact on the consumers' enthusiasm in participating in EG and EC activities. Besides, the situation that leads to the occurrence of this phenomenon - described in figure 7-3 as R1 - is the absence of governmental procedures to implement EG strategy since 2000. For example, the absence of regulations for the protection of personal information in e-transactions plays a significant role in the absence of this interest among consumers to practice e-activities. The following legal expert in EC matters speaks about his personal experience with Jordanian companies and explains how these companies do not respect the right of privacy due to a lack of appropriate regulations:

> *"The Jordanian companies do not respect the right of consumers' privacy. For example, I receive advertising messages from different companies without any permission from me. How does this happen? It is easy; the mobile service provider sold my details."* R15. Legal expert

In addition, the second set of structural conditions that affect action/interaction strategies can be seen in the absence of regulations for personal information processing, tax and customs issues. According to the respondents' reply, as mentioned in 7.2.2.3 and 7.2.3.2 and represented as R3 in figure 7-3, this absence makes consumers and companies less keen to enter this type of activity, and affects the consumers' willingness to participate in such activities due to lack of trust about dealing in this risky commercial atmosphere.

> *"Customs and taxes constitute a problem for practising electronic commerce in Jordan. There is no regulation that regulates these matters and makes consumers and companies not keen to deal online."* R8. Ministry of Justice representative.

Therefore, as discussed in 7.2.3.2, the action/interaction strategies that should be taken, to deal with this phenomenon, according to respondents' opinions, are concentrated in the enacting of suitable regulations for practising e-transactions. This activity, as

represented as R2 and R4 in figure 7-3, will encourage consumers and companies to deal in e-transactions.

> *"To encourage people practising electronic commerce, appropriate regulations should be enacted and understanding of these regulations from our citizens should be conducted." R15. Legal expert.*

If this happens they will have the feeling that legal issues related to such matters as personal information, tax, customs, and e-signature are regulated. This makes consumers and companies, as illustrated as R5 in figure 7-3, more comfortable and more enthusiastic to deal through the internet. Indeed, if regulations are enacted then - as illustrated as R5 in figure 7-3 - the likelihood of the existence of legal experts in the field of electronic transactions will be increased. The following figure describes the relationship between the government response category and its sub-categories.
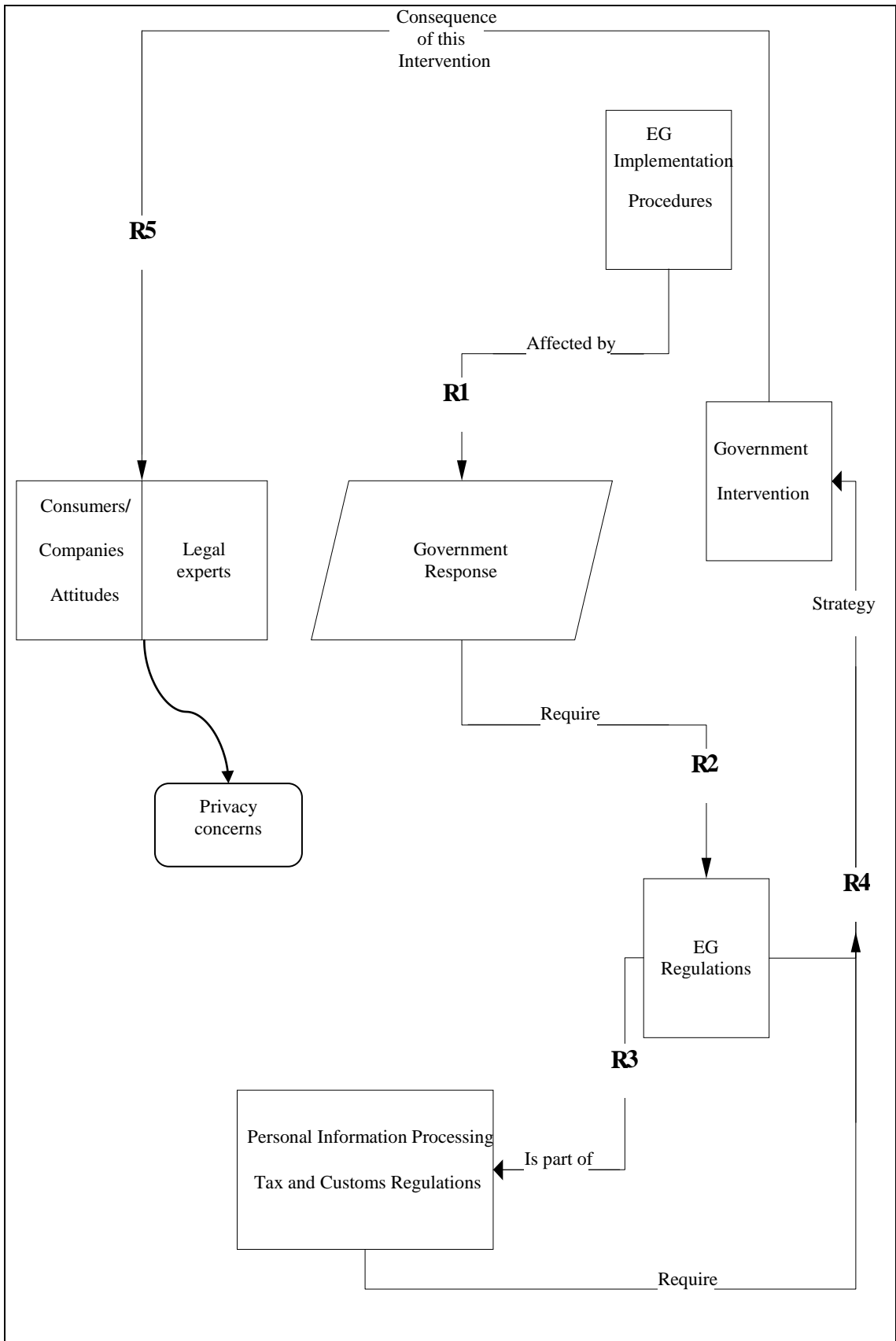
Figure 7-3: Relationship between Government response Category and its Sub-Categories.

"Relationship R1: governmental factors-EG programme" identifies the impact of governmental factors, particularly the EG programme failure in Jordan, on the potential to get the necessary policies that regulate e-transactions.

"Relationship R2: governmental factors- legal factors" identifies the impact of governmental factors, particularly the required regulations for e-transactions, on the government response.

"Relationship R3: legal factors-consumer and companies" identifies data protection law, tax law and customs law as the essential regulations that affect the consumers' and companies' willingness to participate in online transactions.

"Relationship R4: government role - EG and EC" identifies the need for a political will and governmental intervention to promote EG and EC activities in Jordan by enacting the essential regulations.

"Relationship R5: government role-consumer and companies" identifies the impact of government intervention on consumers' and companies' attitudes toward E-transactions, besides its impact on the creation of legal professionals in EC matters.

Finally, three categories have emerged from the axial coding stage; "consumers' attitudes", "companies' readiness" and "government response". In addition, it is clear that each category affects EC implementation and the privacy issue from three different perspectives, government, companies and consumers. Indeed, privacy concerns among Jordanian consumers arise from several issues caused by the government, companies and consumers themselves. The government's underperformance, such as impairment of the EG programme implementation, does not encourage companies and consumers to participate in electronic transactions, which increases concerns among consumers about providing their personal information online. Besides, the lack of companies' determination to adopt EC affects consumers' willingness to purchase from Jordanian companies and provide their personal information online. Moreover, consumers' attitude towards purchasing online increases their concerns about providing their personal information online. However, the following sub-section discusses the core

category that can bring together all of these categories that emerged from the axial coding stage.

7.2.5 Core category from Jordanian context (Selective Coding Stage)

For integrating the theory, the central category (core category) needs to be decided. This central category should be able to explain *"what this research is all about"*, and be able to pull together all the other categories to form an explanatory whole (Strauss 1987). Scaling up the theory is the fourth step in the proposed guidelines by Urquhart and his colleagues. This step involves re-writing the method where the theory is re-written to omit theory specifics. This forms a starting point for increasing the level of conceptualisation. Therefore, it generates the theory from the Jordanian context. The chosen core category has emerged by applying Strauss and Corbin's technique; see section 6.4. This technique depends on giving a general descriptive overview story, as depicted in 7.2.4.1 and 7.2.4.2 and 7.2.4.3. Respondents from different backgrounds revealed that:

> *"The problem is awareness among the consumers about EC. For that we work to teach students a module about electronic commerce."* R7. The Director of EC strategy in the Ministry of Trade and Industry.

> *"There is still a duty on the consumer to know the tools that make him safe from hacking and to be ensured that the website is secured."* R16. Employee at EC programme in the ministry of Industry and Trade.

> *"We share with our partners from public and private sectors in conducting seminars to increase the awareness among the citizens and merchants about electronic commerce."* R10 . Director at the ministry of ICT. Female.

> *"Awareness should be increased inside the private sector members and businessmen, and this is a collaborative responsibility between the public and private sectors."* R8. Ministry of Justice representative.

> *"In regard to the awareness, we are working with our partners from public and private sectors to solve this problem. We are working with the higher education ministry to change the legal and commercial modules*

about electronic commerce." R11 . Ex Director of EC strategy in the ministry of Trade and Industry.

"We have a problem with electronic commerce implementation in Jordan, and this is due to <u>the lack of awareness among the consumers about the ways to be ensured about the website if it is secured or not</u>. At this side, <u>there is a duty on the government to increase the awareness inside them about this issue</u>." R5. Legal expert

These examples give some indication about the situation in Jordan with regard to privacy concerns and EC implementation, which assist the researcher to move from the description to the conceptualisation stage where it can help to specify the core category. As mentioned above, the process of grouping higher level categories into broader themes is the scaling up process (Urquhart et al. 2010). To achieve the integration between the core and other categories, it is important first to create the story line that conceptualises the narrative, as following:

The story seems to be about how privacy issues influence Jordanian consumers to provide their personal information through the internet. It is interested in studying the impact of the existence or absence of privacy regulations on electronic commerce development in Jordan. It is interested in studying the other inhibitors of EC in Jordan and its impact on privacy concerns. Consumers' concerns about their personal information are influenced by their attitudes to EC, and therefore their attitude to providing their personal information online. This is because this perception is affected by awareness and knowledge about EC which affects their trust about providing personal information to an unknown party. Young people's concern about providing their personal information is different from their elders due to their greater skills in using technology. With regards to knowledge and awareness, the kind of education that is given to the students in schools and universities will increase their experience in using the internet and computers. This changes their attitude towards their personal information through increasing their confidence about using technology.

In addition, collaboration between government and companies is needed, because the readiness of companies to sell their products and services online influences EC implementation and consumers' concern about their personal information. The companies' readiness is influenced by infrastructure requirements that support companies with the capability of practising EC, such as e-payment tools and privacy protection software. Besides, the logistical services, such as roads and the post-coding system that are provided by the government, have an impact on the companies' readiness to practise EC. Therefore, the government and companies have to cooperate to implement an EG programme which has an important impact on the EC success and consumers' willingness to provide their personal information online.

Furthermore, consumers' willingness to provide their personal information online is influenced by the government's response. This concentrates on the essential regulations that control all matters related to EC and e-activities. For example, data protection regulations and all other essential regulations, such as E-signature act, consumer protection act, tax and customs are not enacted which affects EC implementation in Jordan.

Figure 7-4: The Story Line from the Jordanian Context.

These paragraphs give the reader a description of the current situation in Jordan concerning the need to overcome the factors that influence the privacy concerns of consumers. It is important, however, to move from the description to the conceptualisation stage and tell the story analytically. This means that the central phenomenon should be given a name, as discussed in section 6.4. Many categories have emerged from the axial coding, but there is not one broad enough to encompass the main idea that is expressed through all the categories. Each one contains a part of, but not the whole, story. The researcher has chosen, through applying the paradigm model, the phrase *"Collaborative Responsibility"* as the core category which will be related to the other categories through applying the paradigm model. By conducting the paradigm model the relationship between the core category and all other categories are justified, which enables moving from the description stage to the conceptualisation stage and scaling up the emerged themes.

Collaborative responsibility has been chosen to be the central phenomenon in this research because the need to reduce consumers' concerns about their personal information requires collaboration between consumers, companies, and government to overcome the privacy issues as a main drawback to practising EC in Jordan. The majority of respondents, for example as mentioned above by respondents R7, R16, R10, R8, R11, and R5, speak about the need for collaboration between all stakeholders to decrease the consumers' concerns about their personal information.

The event that leads to the occurrence of this phenomenon, as it appears in figure 7-5, is consumers' attitudes to providing their personal information online which leads to decreasing their motivation towards participating in EC activities. Their attitudes are

influenced by the divergence in awareness and knowledge between individuals in Jordan, which affects their trust in dealing with faceless dealers.

In addition, the particular context within which the action/interactions strategies are taken to handle the phenomenon - according to the respondents' opinions - is the desire to concentrate on the companies' readiness - as shown in figure 7-5 - to practise EC in Jordan. Companies' readiness affects the consumers' attitudes to dealing online and providing their personal information online. In this respect, the companies' desire to fulfil the requirements of practising EC is affected by the implementation of EG in Jordan. This is because the EG programme in Jordan was initiated in 2000 and nothing has yet been achieved in this initiative due to the lack of infrastructure and logistical services that promote the implementation of EG services. Therefore, this causes the lack of awareness in the majority of Jordanian companies about EC due to their poor motivation and interest in this type of activity.

Furthermore, the conditions that affect the action/interaction strategies that pertain to the phenomenon under study are simplified in the government response – as depicted in figure 7-5 - that governs privacy issues which affect the consumers' decisions towards dealing online. Therefore, the action/interaction strategies that should be taken to manage this phenomenon are concentrated in the need to fulfil the requirements of practising EC.

On the one side, this requires the government to enact the essential regulations that regulate EC, in particular a data protection act, to regulate all issues related with processing personal information. Besides, the government and private sector are required to improve the infrastructure sector which includes roads, electricity, delivery

services, telecommunications and all other logistical services that are needed to encourage consumers and companies to practise EC.

On the other side, this requires companies to be convinced about the impact of EC on their activities and profits. They should maintain all requirements that provide them with the ability to trade online, and keep consumers safe from having their personal information stolen. According to the people who participated in this research, this could be achieved by enhancing the tools and techniques that protect their privacy.

Therefore, both government and companies share the responsibility about overcoming the concerns of consumers about providing their personal information online. If this happens then - as illustrated in figure 7-5 - the outcomes of action and interaction will revolve around the capability of encouraging consumers to participate in online activities and less concerned about their privacy.

To conclude, according to the respondents' observations, if the government is serious about the adoption of electronic commerce, it should collaborate with companies and resolve all privacy issues that are currently hampering its implementation in Jordan. As seen above, the government is the essential element in the electronic commerce formula. This is because all factors that influence privacy concerns of consumers in Jordan need governmental intervention otherwise there will be no further progress in this sector. This intervention by the government will not succeed if companies do not collaborate and help the government to change consumers' attitudes to dealing online and providing their personal information through the internet.

Finally, as data are related on the conceptual, property and dimensional levels for each major category, then data completes its grounding and it may be presented

diagrammatically or narratively. In the above pages the theory was presented narratively and in figure 7-5 below it will be presented diagrammatically clarifying the relationship between the core category and all other categories.
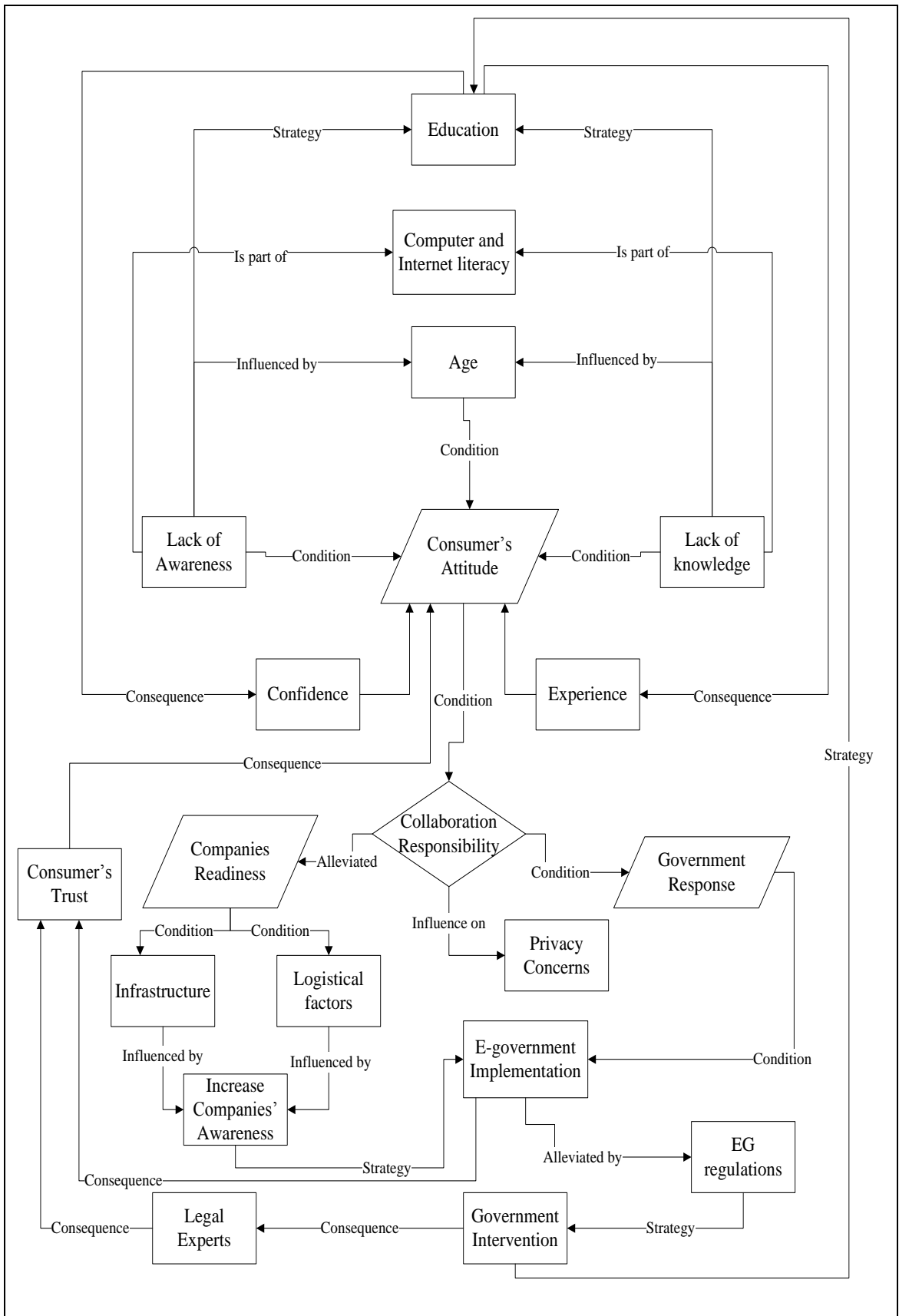
Figure 7-5: Relationship between Core Category and other Categories from the Jordanian Context.

Figure 7-5 clarifies the relationship between the sub-categories and the core category. Furthermore, it reveals the impact of the core category on privacy issues and the development of electronic commerce in Jordan as a consequence. This model presents all the factors that affect privacy concerns, emphasising the privacy regulations, of the Jordanian consumers and as a result the implementation of electronic commerce in Jordan. It shows that collaboration between government and companies is the essential element in overcoming the pitfalls that affect the consumers' willingness to provide their personal information online.

The next section will discuss the findings that emerged from the UK context with regard to electronic commerce implementation and factors that could influence consumers' concerns about providing their personal information online.

7.3   Findings from the UK context

This section will consider the results that have emerged from the UK context. The factors that emerged from the UK context from the consumers' perspective as shown in 6.6.2 and discussed in 5.5.4, will be discussed individually in the next sub-sections of this chapter. However, these results have been revealed from the consumers' perspective not from businesses and government sectors as in the Jordanian situation; this is due to the use of constant comparison and theoretical sampling methods, discussed in sub-sections 6.2.1 and 6.2.2 that do not channel the interviewer to collect data from them.

7.3.1 Privacy concerns based on the consumers perspective (Open Coding Stage)

Three categories have been revealed from consumers' perceptions: demographic, consumers' characteristics, and personal factors. The following subsections will discuss each of these categories in detail.

7.3.1.1 Demographic factors

With regard to demographic factors, one phenomenon that has emerged from the field study in the UK is the consumers' age and their educational level. Most respondents think that the age of individuals might influence consumers' decisions to provide their personal information and buy online. When the researcher asked the respondents about the impact of the age of individuals on their willingness to buy online, two attitudes emerged. The first attitude is that age does not affect people's willingness; the second attitude affirms the impact of age on the willingness to provide personal information and buy online. The first attitude appeared in the following young consumer's answers when she said:

> *"No really I think any age can buy from the online shops. I think old people can use the internet and they can buy online".* R31. Young consumer, female, 20s

She believes that all people from all generations can buy through the internet and affirm that age does not affect individuals' willingness to buy online and provide their personal information.

The second attitude considers that the age of the individuals could influence their decision to provide their personal information and participate in online activities. All respondents with this attitude gave a justification for their beliefs. For example, the following respondent is young and he speaks about his family and if they buy online. He said:

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> *"I know that a lot of consumers who buy from the internet are young people...........Older people are not interested in buying online because their usage of the internet is just for normal use, reading an article, newspaper, not for shopping."* R22, Young consumer, male, 40s.

Most respondents differentiated between the old and new generation and their willingness to provide their personal information through the internet. Respondents indicated that young people are more inclined to buy online than their elders. They based their beliefs on several reasons, such as computer and internet literacy and attitudes of each generation towards buying items over the internet. When researching the reasons that make older people less likely to buy online, respondents said:

> *"I think the younger people are more encouraged to buy through the internet than older people because they are more experienced in using computer and internet."* R24, Employee consumer, female, 30s.

Furthermore, respondents argue that educational level has its impact on consumers' willingness to provide their personal information and their capability of buying online. This is because if they have enough knowledge and awareness about computers and the internet, then they will be able to deal with technology and this gives them the capability to deal with EC in a secure way. If they do not have this knowledge then they will not be able to browse the internet and they will not be willing to deal online and provide their personal information. For instance, the following respondent is a student at university and he talked about the impact of education on increasing his knowledge about using the internet. He said

> *"From my education study I've been told about the security data protection act and computer misuse sites and I know that all websites should have policy guidelines so I know what to look for."* R19. Student, male, 20s

In adition, through comparing the replies of respondents and reviewing to the literature it is found that education has an impact on the number of individuals who can access the internet, which constitutes a factor that influences their ability to buy online. This is

because more educated people are better able to deal with technology than those who are less educated. It appears from the answer of Mark Williams from the Office for National Statistics in its 2010 news release that "*Usage is closely linked with a number of socio-economic and demographic indicators with those less **educated** and on lower incomes less likely to access the web.*" This was offered as his interpretation of the reasons that prevent 9.2 million UK adults (15%) of the UK's population from never having accessed to the internet.

Finally, privacy concerns might be affected by the age and education level of consumers. Respondents argue that young people are more willing to provide their personal information through the internet compared with the older generation. This is because the new generation receives specialised education about computers and the internet compared with the older generation who did not receive such education. This gives them the ability to differentiate between the secure and non-secure websites and be keen to provide their personal information online.

7.3.1.2 Consumers' characteristics factors
Several concepts have been revealed by respondents with regard to the characteristics that might influence consumers' willingness to buy online: ability to use the computer and internet, experience, trust, and confidence.

The ability to use a computer and the internet was one of the main factors that influenced their ability to buy online and at the same time be confident about providing their personal information. The following respondent is a student at university and he talked about this factor when he said:

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> *"The main thing is the experience and the knowledge of how to use the internet and computer well that would be the main factors."*
> *R19. University student, male, 20s.*

The researcher took this description and went on to collect further data about the consequences of the inability to get online, on consumer willingness to buy online and to provide personal information. This appears when the following respndent mentioned that she has not bought online in the past, and when the researcher asked her about the reason, she answered:

> *"No, because I am not online and do not have access to the internet".*
> *R25. Young female,40s*

The above respondent cannot use computers and the internet at all, which justifies why she does not buy online. However, not all of the people who use the internet are online shoppers. However they are influenced by their attitudes toward using the internet for shopping, which affects their decisions to buy from online shops. This is shown in this elderly gentleman's answer when he stressed his ability to use computers and the internet, but says that he would not prefer to use them much and that is why he is not an online buyer and does not like providing his personal data online. He says:

> *"Oh yes and I know how to use it and buy through the internet. But actually I do not use it a lot, but my daughter has got a laptop and uses it for buying some products online. Actually she prefers to buy online as well."* *R29. Elder consumer, 60s.*

Other respondents linked the ability to browse the internet with the age of individuals. Most respondents argued that the new generation are more willing to buy online because they are more skilled than the older generation in using computers and the internet. This suggestion comes from both older and young people; as an example, the following older gentleman agreed when he said:

> *"I think the younger generation are more experienced in using computers and the internet than our generation."* *R29. Elder consumer, male, 60s.*

In addition, a youthful respondent clarifies why older people are not online shoppers in compared with the young by saying that:

> "*Most old people are not confident to buy online, because might they not be confident with shopping online. Probably most of the older generation have no experience with the internet. And that is why the younger age group are more willing to buy online: because they can get online.*" R30. *Young female,40s*

So, respondents feel that the ability of the individual in using a computer and the internet grants him the potential for gaining familiarity with surfing websites and determining whether they are secure or not. This is obvious in the dialogue with the following respondent:

> "*Interviewer: can you use a computer and surf the internet?*
> *Interviewee: Oh yeah.*
> *Interviewer: Do you know when the website is secured or not?*
> *Interviewee: Oh yes there are some features on the page telling me if the website is secure or not, such as the padlock sign or https protocol.*"R32. *Young consumer, male, 30s*

Other respondents go further and make links between EC and the fear of using the new technology as an impediment to its success. This fear makes them unhappy to provide their personal information online. Some people noted this explicitly, for example:

> "*I think some people are still frightened of the new technology.*" R21. *Young employee, female,30s*

The second factor that might influence the individual's willingness to buy online is his/her experience of dealing online. If this individual has habitually bought online, then he/she will be more confident to transmit his/her personal information online. This appears in the respondents' answers when they talked about their experience in dealing online and the impact of their experience on the decision to buy through the internet in the future. One of them said:

> "*Not recently no, but I did in the past. Actually I do not have any problem with buying online.*" R32. *Young consumer, male, 30s*

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This respondent had some experience of electronic commerce. From this experience he became more confident about buying in the future. Another one talked about the impact of his experience upon his ability to differentiate between a secured and a non-secured website. He said:

> *"When I first starting buying online I was concerned about giving my details but I regularly started using the saving websites, the more popular ones, I got the experience. I became aware of if the website is secure or not. So before I completed a transaction I would see if the website is secure or not and recently I bought from a website I had not seen before but I checked that website was secure or not". R19. Student, male, 20s*

Another reveals the benefits of electronic commerce compared with buying directly from the store. She declares that her experience in shopping online allowed her to discover these benefits. Her attitude toward dealing online makes her more likely to be further persuaded to buy online, which means she accepts inputting her personal information without worrying. She said:

> *"Yes I did, two three times a week. I prefer buying through the internet because it is probably easier to buy online because you can receive an alternative if it does not fit your favourites, and send it back as well. So it is easy." R26. Young female, 20s*

Another respondent supports the idea that older people are unwilling to buy online and put their personal information online due to their lack of experience in using the internet. She said:

> *"Most old people aren't that keen to buy online because they aren't very motivated by online shopping. Most of these older folk have no experience with the internet. And that is why the younger have an incentive to buy online because they can get online." R30. Young female, 40s*

Trust and confidence constitute a hurdle in consumers to providing their personal information and dealing online. Most respondents linked trust and confidence, because they think that trust and confidence are equivalent. For example, this appeared when

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one of the respondents said that he would be encouraged to buy online if he trusts the websites, and that he buys only from the most popular websites. He said:

> *"I do not mind providing my details on the more popular websites. On the newer websites I would not feel able to give them as much information as they ask".* R19. Student, male, 20s

Another goes further and claims that he gives priority to UK websites, and he might buy from non-UK websites only if he does not find what he is looking for. So he trusts and feels confident to put his personal information on UK websites. He said:

> *"This depends, if I want to buy something and I cannot find it in the UK I will buy it from anywhere and maybe I have to pay an extra charges for posting and customs, but if I can find it in the UK for sure I will buy from the UK website."* R23. Young employee, male, 40s

Talking about trust was sometimes accompanied by mention of anxieties about using technology. If individuals were in the habit of using computers and the internet, then they would be more confident and know how to ensure whether the website was secured or not. This respondent tries to explain the reasons that prevent some people from buying online:

> *"Oh yeah, I can do but I do not use it a lot, and most older people have no internet. Actually I have no idea why they do not use the internet, maybe because they have no access to the internet and computers. Maybe because they never bought into computers and are scared of using them and they are looking for a safe way to buy and they are looking for someone to talk to before buying the product."* R29. Elder consumer, 60s.

This clarifies why this older man would not buy online and prefers to buy directly from the shop as there is no need to provide his personal information. One respondent said:

> *"I buy from the stores, because in online shopping I have to give my details to complete. And I do not trust buying online as much as I trust buying in the shops."* R17. Elder consumer, male, 60s

Another respondent is convinced that trust and confidence come as a result of experience, so if the individuals gain the necessary experience then they will be more aware of the difference between secure and non-secure websites. The respondent said:

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> *"When I first started buying online I had a concern about giving my details but I regularly started using the saving websites, the more popular ones, I get the experience."* R19. Student, male, 20s

Consequently, respondents argue that if the individual had some experience then he would be more confident and trust the website. For example, this respondent did not buy online:

> *"Because I am not confident with shopping online."* R17. Elder consumer, male, 60s

Finally, respondents say that language does not constitute a problem for UK people who want to buy online because there are numerous websites that advertise products in the English language.

> *"No from my perspective I do not think language constitutes a drawback for consumers."* R17. Elder consumer, male, 60s

Language could be a problem if the individual enters a non-English website. In this situation he/she will be worried about buying from this website. This appears when the respondent answered as follows:

> *"It depends, because if I want go onto a website in another language such as Chinese I cannot understand the language so I will not be comfortable because I do not know who is actually behind the whole thing but if it is in English I prefer it, especially with a company based in the UK because I can contact them easily, but if it is outside the UK it may cost me more money."* R18. Student, male, 20s

The ability to use computers and the internet, experience, trust and confidence are interrelated and grouped under one category, due to the similarities in their properties and dimensions. Privacy concerns are influenced by computer and internet literacy, confidence, experience and trust. When the individual develops higher skills in using computers and the internet, then he will be more expert in browsing the World Wide Web. So this individual will feel confident in ordering any product, which means that experience and confidence create a kind of trust that encourages him to buy online.

When the consumer acquires this trust he will be more willing to provide his personal information with no worries about it.

7.3.1.3 Personal factors

One observable fact has arisen from the interviews regarding the impact of personal factors on the willingness of UK consumers to provide their personal information online. Respondents talked about the attitude of consumers toward e-commerce and its impact on their willingness to shop online and send their personal information through the internet.

Respondents feel that the attitudes of individuals have an impact on their willingness to provide their personal information online. If they have the experience, confidence and trust as discussed in 7.3.1.2 then their attitudes towards shopping online might be open to alteration. So it depends upon whether they perceive electronic commerce as a positive or negative shopping choice. For example, when the researcher asked respondents about their perceptions of electronic commerce, two attitudes emerged. The first attitude perceives electronic commerce positively, while the second perceives it negatively. With regard to the first attitude, respondents talked about their perceptions about electronic commerce, for example one of them said:

> *"I probably buy regularly two times a month. I prefer buying online, because on the internet I can get more offers, more cheaply and it is cheaper than the shops"*. R19. Student, male, 20s

Another respondent buys through the internet because

> *"it is convenient and it is delivered to my home."* R27. young consumer, male, 30s.

Other respondents go further and explain why they are keen to buy online. This dialogue explains this:

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> *"Interviewer: Do you buy online?*
> *Interviewee: Yes I do, around four times a month.*
> *Interviewer: Why?*
> *Interviewee: Because, shopping online is more convenient than buying directly from the shop". R21. Young employee, female, 30s*

On the other hand, people who prefer not to shop online gave reasons to explain why they do not. They said:

> *"And why I do buy if I can buy from anywhere else? I know I can find it online but I am not keen to do it." R20. Elder consumer, female, 60s*

In spite of the other respondents' past experiences with electronic commerce, they will not be keen to buy from online shops in the future. They explain:

> *"Yes in the past. But recently I prefer to buy directly from the shop because I like to see the product before I buy it." R24. Employee female, 30s*

However, some people prefer to buy directly from the store but at the same time they are keen to buy through the internet. This appears from this respondent's discourse:

> *"Actually some people have this concern because they want to see the item in the store before they buy it. But I don't mind buying things online myself." R26. Young female, 20s*

This preference is based on their concerns about their personal information. So, if they care about providing their personal information online, then they will not be willing to buy through the internet. If they are not concerned about it, then they probably will be willing to buy online. When the researcher asked respondents about the reasons that prevent people from entering their personal information online, they affirmed their concerns about their personal information, For example, the following respondent, an older gentleman, made a link between privacy and security, because he felt that a website has to be secure and enable the protection of personal information. He said,

> *"Safety and hacking issues, because giving information can increase the risk of being hacked into and robbed, and that is why I am not very keen to give my card details online." R17. Elder consumer, male, 60s.*

Respondents mention that older people are more worried about their personal information than younger people. This is due to the age and computer literacy factors discussed above. Respondents mention that the older generation are not willing to put their personal information through the internet. For example one of them said that:

> *"Actually <u>I have no idea why they do not use the internet. It may be because they have no access to the internet and computers as well. Maybe because they never bought a computer and are scared to use it and they are looking for a safe way to buy and they are looking for someone to talk to before buying the product</u>." R29. Elder consumer, 60s.*

Finally, as the respondents made clear, if the consumer perceives EC negatively then he will have a high concern about providing his personal information online, and he will be cautious about shopping online. However, if he perceives EC positively then he will have few concerns about providing his personal information online and he might be ready to shop online, because he has the capability to differentiate between the safe and non-safe sites.

To conclude, the factors that influence privacy concerns from the consumers' perspective are summarised in the following table.

Age of consumer	Trust
Educational level	Experience
Ability to use computer and internet	Confidence
Consumers' Attitude	

Table 7-4: Factors influence privacy concerns from the consumers' perspective.

It may be seen from the above table that these factors may be demographic factors, such as age and educational level; consumers' characteristics factors; the ability to use computers and the internet; experience, trust, and confidence; and personal factors, such as consumers' attitudes. However, the next sub-section will discuss the relationship between the categories and sub-categories that have emerged from the open coding stage.

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7.3.2 Relationships between categories (Axial Coding Stage)

As discussed in 6.4 and implemented in 7.2.4, the next step in the analysis process is in making a connection between the emerged categories and sub-categories and trying to reorganise the emerged categories from the open coding stage. As discussed in the open coding stage, the three categories included seven sub-categories and this enabled the researcher to categorise initially the emerging concepts. The number of categories in the axial coding stage will be decreased by comparing and re-categorising similar categories under one. The use of constant comparison and theoretical sampling methods will be continued to enhance theory development according to the guidelines of Urquhart and colleagues. Therefore, with respect to the current research and due to continuing theoretical sampling and constant comparison methods, the initial categorising has been amended because of the new data that was collected and analysed in the axial coding stage. Two categories emerged from the axial coding stage: they were named *demographic factors* and *consumers' attitude*. These two categories are discussed in section 6.4 with respect to the implementation of the paradigm model.

7.3.2.1 Demographic characteristics

On the one side, the central phenomenon chosen for this category is the difference in the demographic characteristics - as discussed in 7.3.1.1 - between UK consumers. This affects the consumers' willingness to provide their personal information online and purchase online. The event that leads to the occurrence of this phenomenon, as described as R1 in figure 7-6, is based on the age of consumers and its impact on their decision to participate in online activities and provide their personal information through the internet. It appears from respondents' replies that the new generation are more skilled in using technology in comparison with the older generation, who are

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scared about dealing with this technology and more concerned about their personal information. For example, this appeared from this respondent

> *"Besides, the new generation can use computers and new technology better than the old generation do and this gives them the ability to buy online. Some of the old generation can deal with the technology but they might be scared of fraud." R32, Young consumer, male, 30s.*

Another respondent from a different category of age confirms the same thing by saying

> *"I know that a lot of consumers who buy from the internet are young people...........Older people are not interested in buying online because their usage of the internet is just for normal use, reading an article, newspaper, not for shopping." R22,* Young *consumer*, male, 40s

The second causal condition, illustrated as R1 in figure 7-6, is focused on the differences between educated and non-educated people in regards to their concerns when dealing with the new technology. Educated people, as mentioned in 7.3.1.1, are more capable of dealing with the technology compared with non-educated people due to the kind of knowledge they receive about computers and the internet. At this side, the UK National Statistics Office in its news relaese mentioned that "people who were more likely to have never used the Internet were the over 65s, the widowed, those on low incomes and those with no formal qualifications (Office for National Statistics 2010). The same release adds that "45 per cent of adults without any formal qualifications had used the Internet, compared with 97 per cent of those with a degree." The following respondent is a student at a UK university, talks about the impact of higher education on his knoweldge and awareness about internet usage. He said

> *"From my education study I've been told about the security data protection act and computer misuse sites and I know that all websites should have policy guidelines so I know what to look for." R19. Student, male, 20s*

According to the respondents' replies, the particular context within which the action/interactions strategies are taken to manage the phenomenon, as mentioned in

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7.3.1.2 and illustrated as R3 in figure 7-6, is the desire to increase consumers' literacy in computer and internet use. It appeared from respondents' replies that people skilled in using computers and the internet are more ready to deal with this type of technology compared with non-skilled people. For example this respondent confirmed that

> *"The main thing is the experience and the knowledge of how to use the internet and computer well that would be the main factors. Security issues constitute another problem for non e-commerce users."R19.* Student, male, 20s

In addition, there is a second set of structural conditions - described as R2 in figure 7-6 - that affect the action/interaction strategies that pertain to the phenomenon under study, the intervening conditions. In this example, these intervening conditions can be seen in the ability of UK consumers to purchase from websites with no English content. This factor might influence consumers' willingness to buy online only if there is no choice except buying from non-english websites. This happens only if there is no enough websites with English content that accomplish their requirements, and this is not applicable on the UK situation due to the large amount of websites that selling online with an English content. This can be seen when the litreature is reviewed and the readiness of UK companies to sell through ICTs, is observable from the Interactive Media in Retail Group (IMRG) survey that issues an annual list of the top 100 e-retailers in the UK, which menas that companies sector in the UK is ready to provide most consumers' requirement through ICTs. However, this matter, as confirmed by respondents in 7.3.1.2, does not constitute a drawback for UK consumers because most of the products they seek online can be found from the UK websites, or at least from the foreign websites with English content.

> *"It depends, because if I want go onto a website in another language such as Chinese I cannot understand the language so I will not be comfortable because I do not know who is actually behind the whole thing but if it is in*

English I prefer it, especially with a company based in the UK because I can contact them easily, but if it is outside the UK it may cost me more money."
R18. Student, male, 20s

Therefore, the action/interaction strategies that are taken to manage this situation - as shown in figure 7-6 and labelled as R4 - are concentrated in the type of education that is presented to students. This means that promotion of electronic commerce should be concentrated, as clarified in 7.3.1.1 and 7.3.1.2, on the young and new generation to raise a generation which is able to deal with technology. This is because this respondent stated that older generations are not willing buying online which means that the focus should be on the new generation.

"Old people are not keen to buy online, because they are not confident with shopping online. Probably most of the elderly have no experience with the internet. And that is why the younger ages are more willing to buy online because they can get online." R30. Young female,40s

Besides, the focus should be on the new generation because

"I know that a lot of consumers who buy from the internet are young...........Older people are not interested in buying online because their usage of the internet is just for normal using; reading an article, newspaper, not for shopping." R22. Young consumer, male, 40s

From the above opinions, and by conducting a constant comparison and theoretical sampling methods, two ideas have been revealed, the first one is related to age. From respondents' replies, young people are more encouraged to use new technology rather than older people. This means that the most prevalent use of EC is by the young generation, and the older generation is less encouraged to use new technology. So, secondly, the concentration has to be on the youth generation through focussing on the students at schools and universities, because as mentioned in table 4-7 (11,829,780) of the UK population is less than 15 years old which gives the opportunity to increase their knowledge and awareness about EC.

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If this happens, the outcome - as labelled as R5 in figure 7-6 - will revolve around increasing the knowledge and awareness among the new generation about EC, which increases their experience in using technology and encourages them to provide their personal information with less concern, as displayed in figure 7-6 and labelled as R6. For example

> *"So <u>people need to be made aware how to get access to the websites and where their information is actually going</u>, and <u>they should have a background about computers</u>. With regard to the computer <u>all people would like to know what computers are about because they have used them in school and university but actually they do not know to what extent they have to give their personal information</u>."* R18. Student, male, 20s

This respondent reveals the impact of education on increasing the level of knowledge and experience about dealing online which decreases the concerns regarding personal information. However, the following figure clarifies the relationship between the demographic characteristics category and its sub-categories.
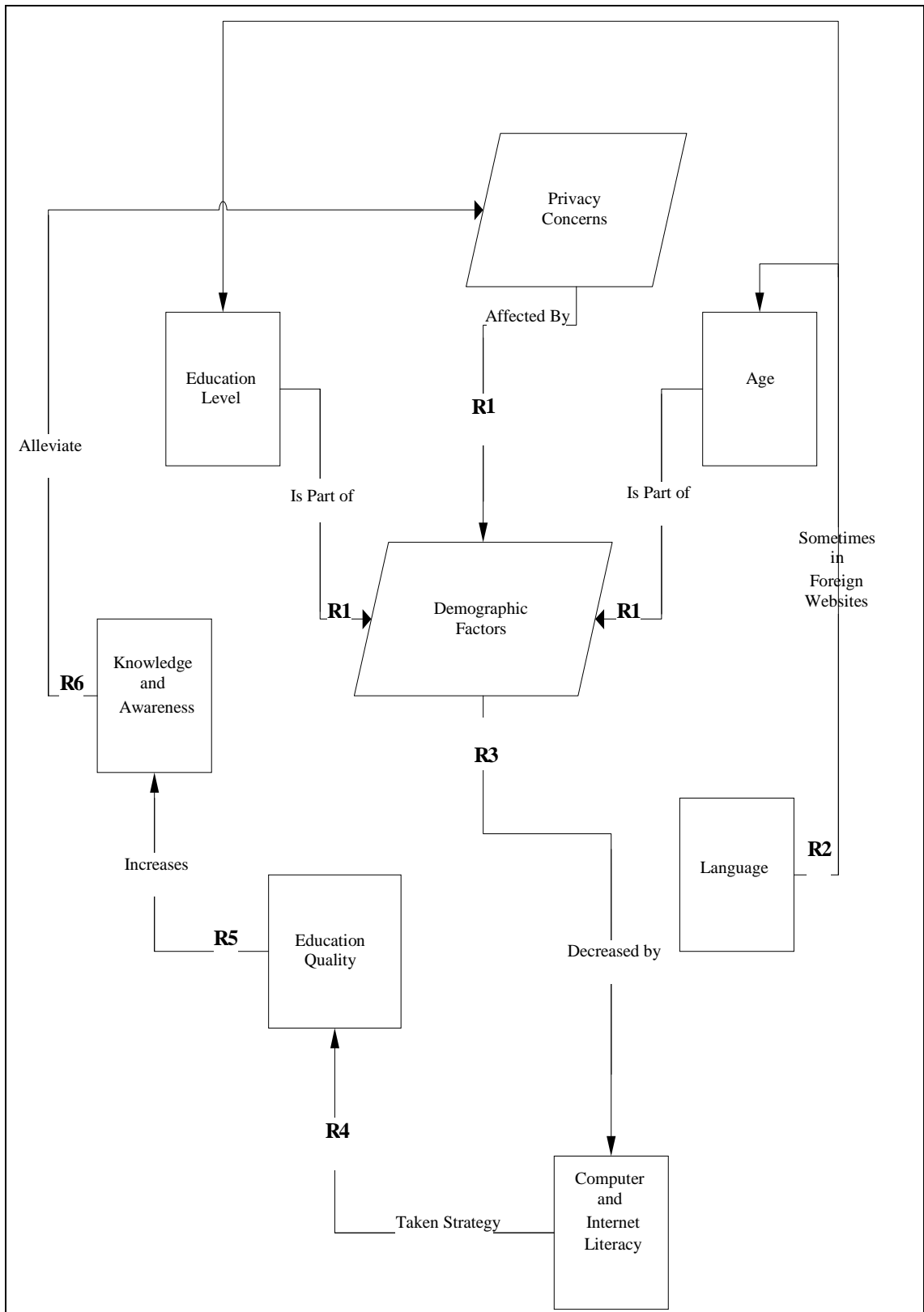
Figure 7-6: Relationship between the Demographic Characteristics Category and its Sub-Categories.

"Relationship R1, R2: demographic factors - age, education level" identify the impact of demographic factors, particularly age, education level and language, on the consumers' concerns toward their privacy.

"Relationship R3: consumer characteristic - computer literacy" identifies the impact of consumers' characteristics factors; particularly their skills in using computers and the internet on their concerns toward their privacy.

"Relationship R4: demographic factors- education" identifies the impact of education quality as a strategy that should be taken to manage the demographics and characteristics factors that affect the consumers' privacy concerns.

"Relationship R5: demographic factors - consumer characteristic" identifies the impact of the strategy taken on the consumers' knowledge and awareness which leads to R6.

"Relationship R6: consumer characteristic - consumer attitude" identifies the impact of knowledge and awareness on the consumers' concerns about their privacy.

From the above figure, it can be seen how the demographic characteristics category is able to gather all other concepts by applying the paradigm model. It appears that consumers' attitudes towards providing their personal information through the internet is influenced by concentrating on the education strategy that increases the students' knowledge and awareness about EC.

7.3.2.2 Consumers' attitude

The second category to emerge from the axial coding stage is the consumers' attitude. The central phenomenon chosen for this category is the impact of consumers' attitudes, as discussed in 7.3.1.3, towards their willingness to provide their personal information online. For example, the following respondents revealed their attitudes about EC by saying:

> *"No, because I prefer going to the shop and seeing the product I am going to buy. I have a credit card and I can use it online but I am not interested in buying online." R22. Young consumer, male, 40s*

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> *"Yes, three times. But <u>I prefer to buy from a store</u>....... <u>I want to talk to a person one to one in a store</u>. Else, <u>I need to see a product before buy it</u>."*
> *R29. Elder consumer, 60s.*

The event that leads to the occurrence of this phenomenon is based on the impact of confidence - as displayed in figure 7-7 as R1 - among the UK consumers on their willingness to buy online and provide their personal information through the internet. If they are confident in using EC technology, as mentioned in 7.3.1.2, as an alternative choice for covering their requirements, then they will be more willing to deal online and provide personal information. For example, the following respondent illuminates the impact of getting experience in using computers and the internet on the consumer's confidence toward shopping online and providing personal information online. He said.

> *"<u>The main thing is the experience and the knowledge of how to use the internet and computer</u> well that would be <u>the main factors</u>." R19.*
> *University student, male, 20s.*

The particular context within which the action/interactions strategies are taken to manage the phenomenon is the desire to increase their skills in using computers and the internet - as discussed in and labelled as R2 in figure 7-7 - among UK consumers to make them more willing to deal online and trust EC. In addition, there is a second set of structural conditions that affect the action/interaction strategies that pertain to the phenomenon under study, the intervening conditions. This condition simplifies the role of experience in increasing confidence among consumers and increases their motivation to purchase online. This condition is shown as R3 in figure 7-7 and discussed in 7.3.1.2.

Therefore, the action/interaction strategies, described as R4 in figure 7-7, that are taken to change consumers' attitudes toward EC are concentrated in the level of skills of those consumers in using computers and the internet, as mentioned in 7.3.1.2. This means that the focus should be on the new generation to raise a cohort that is able to deal with

technology. If this happens, the outcome will revolve around making consumers trust in using technology, mentioned in 7.3.1.2 and 7.3.1.3 and labelled R6 in figure 7-7, for conducting commercial transaction and providing personal information through the internet. For example, from this respondent's reply, it is clear to what extent trust influences consumers to provide their personal information online.

> *"I buy from the stores, because in online shopping I have to give my details to complete. And I do not trust buying online as much as I trust buying in the shops."* R17. Elder consumer, male, 60s

However, the following figure explains the relationship between the consumers' attitudes category and its sub-categories.

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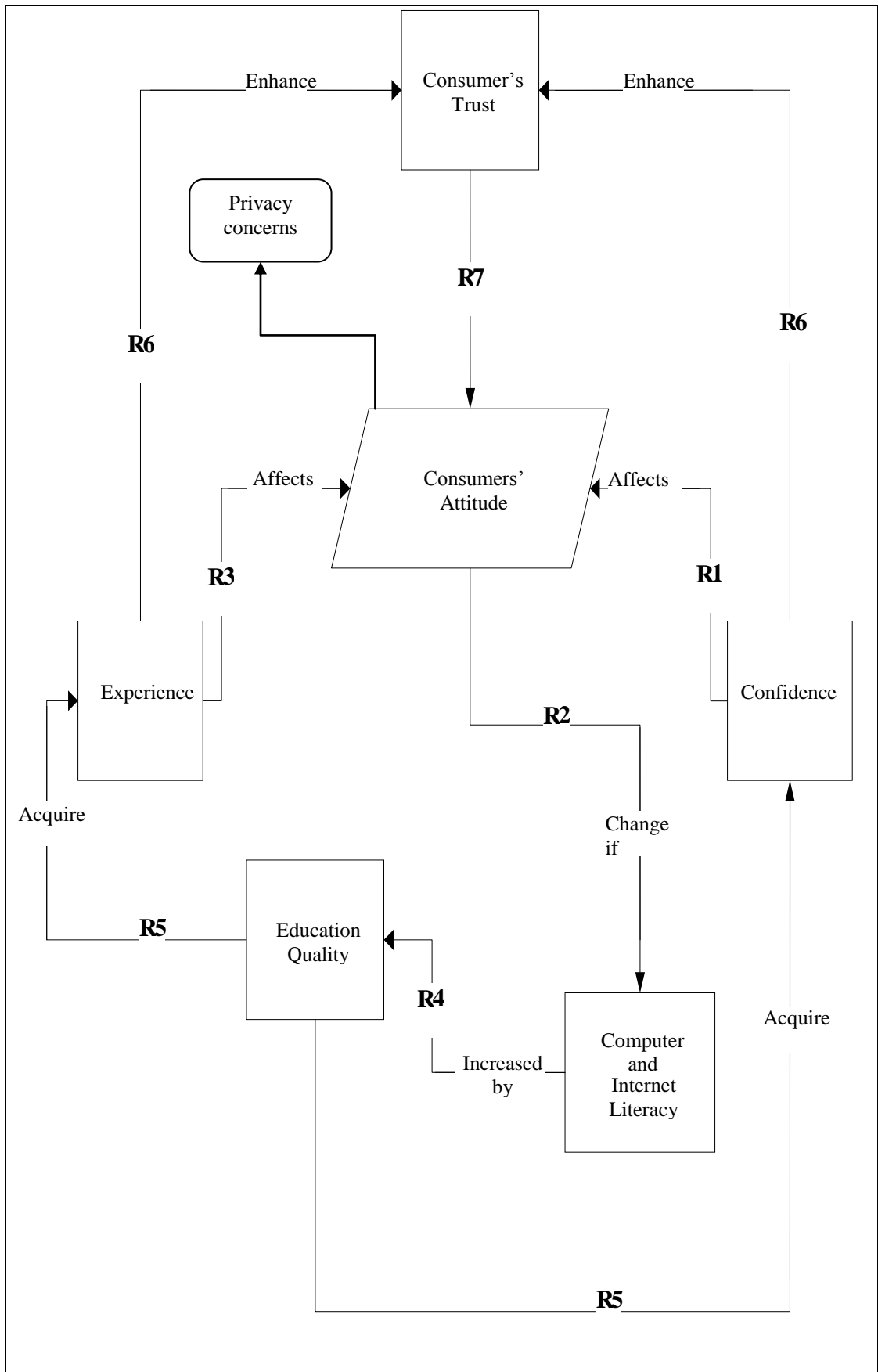
Figure 7-7: Relationship between the Consumers' Attitudes Category and its Sub-Categories.

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"Relationships R1, R3: consumer characteristic-confidence and experience" identify the impact of consumers' characteristics factors, particularly confidence and experience, on their attitude towards being willing to provide their personal information online.

"Relationship R2: consumer characteristics- computer literacy" identifies the impact of computer and internet literacy on the consumers' attitudes to providing their personal information online.

"Relationship R4: demographic factors-education" identifies the impact of education on the consumers' increasing abilities in using computers and the internet.

"Relationship R5: demographic factors-consumer characteristic" identifies the impact of education on experience and confidence among consumers.

"Relationship R6: confidence and experience-trust" identifies the impact of increased experience and confidence among consumers on their trust in participating in online activities and providing their personal information online.

"Relationship R7: consumer characteristic-privacy concern" identifies the impact of increases in consumers' trust on their attitude to providing personal information online.

The above figure shows how the consumer's attitude category is able to gather all other concepts through applying the paradigm model. It appears that consumers' attitude towards providing their personal information through the internet is changed by increasing their experience and confidence in using technology.

Finally, two categories have emerged from the axial coding stage, "Demographic Characteristics" and "Consumers' Attitudes. It is clear that privacy concerns among UK consumers arise due to several reasons rooted in the consumers themselves. Consumers' concerns toward purchasing online and providing their personal information are affected by their personal characteristics that are due to their lack of knowledge or awareness which is caused by their age and education level. These characteristics affect their attitude and willingness to provide their personal information online. Their attitude is influenced by their lack of confidence and experience in using technology. Therefore, to

encourage consumers to buy online and provide their personal information online with no concern, it is necessary to change their attitude about purchasing online and using personal information on the internet. However, the following sub-section presents the core category that binds these two categories.

7.3.3 Core category from the UK context (Selective Coding Stage)

First of all, for selecting the core category that represents the UK context concerning privacy issues and their impact on EC implementation, the same procedures as were conducted in 7.2.5 will be followed. Scaling up the theory is the fourth step in the proposed guidelines by Urquhart and his colleagues. This step includes omitting theory specifics and re-writing the method in order to re-write the theory, which enhances the level of conceptualisation. To generate the theory from the UK context, Strauss and Corbin's paradigm model (see section 6.4) has been used to obtain the core category. Thus, to transit from description to the conceptualisation stage, the descriptive story concerning privacy issues has been given and this depends on providing a general descriptive overview of it. However, from respondents' replies it is obvious that the UK's story could be summarised as

> *"Because of the fear of giving information away. They prefer to keep it safe. I know some stories about people having their accounts stolen and obviously they are not still willing to go buying online again."* R19. Student, male, 20s.

> *"I think some people are still scared of the new technology and I think most people are afraid of being identifiable and I think that is why a lot of people do not do it."* R21. Young employee, female,30s.

> *"No, I do not care about shopping online, because I've never thought about buying online and I don't have any idea about the protection of my online shopping."* R20. Elder consumer, female, 60s.

These examples give some indications about the situation in the UK in regard to privacy concerns and its impact on EC implementation, which helps the researcher to move from description to the conceptualisation stage where it could help to specify the core category. This process of grouping higher level categories into broader themes is named as the scaling up process (Urquhart et al. 2010). However, to achieve this integrated relationship between core and other categories, it is important firstly to create a story line that conceptualises the narrative, as following:

The main story seems to be about privacy concerns and their impact on the UK consumers to provide their personal information through the internet. Besides, it is interested in studying the impact of existing privacy regulations on the UK consumers' willingness to provide their personal information online. However, consumers' concerns towards their personal information are influenced by several drawbacks, such as those caused by divergence in the demographic characteristics between consumers. It seems from respondents' answers that young people are more capable of dealing with technology compared with the previous generation. The type of education that each generation has received is one of these reasons. The new generation is educated a lot about technology due to the revolution in technology after the 1990s. This gives the new generation the capability to deal with technology much better than the older generation. Therefore, this divergence affects each generation's attitude to dealing online and providing their personal information through the internet. However, consumers' attitudes are alleviated by increasing the consumers' confidence and experience about technology; this grants them the trust they need to deal online and makes them happy to provide their personal information to a virtual seller. So, consumers will accept the notion of purchasing their requirements through the internet, and accept that this type of technology is not a hazardous environment.

Figure 7-8: The Story Line from the UK Context.

Generating the core category, which will be abstract and encompass all other categories, will be possible through applying the coding paradigm model conducted in sub-section 7.2.5 and discussed in section 6.4. "*Consumers' Attitude*" towards EC is the chosen core category that is able to encompass all the other categories and guide the researcher in moving from the description to the conceptualisation stage. This has emerged through

the data, which show how consumers' attitudes have a significant impact on their willingness to provide their personal information online and as a consequence on electronic commerce development in UK.

Consumers' attitude has been chosen as the central phenomenon to represent the UK context. It affects their concerns about providing their personal information online. This phenomenon has been provided from respondents' speech - as mentioned in 7.3.2.1 and 7.3.2.2 - when they clarified that the main concern for consumers is finding a safe place for shopping.

Besides, their attitude to providing their personal information and buying online might be influenced, as mentioned in 7.3.2.2, by their preference to see the product they are going to buy, to touch that product, looking for safe places to shop, to communicate with the seller, and the attitude that providing their financial information is not a good idea.

From the above, it seems that respondents' attitudes towards shopping online make them less confident and experienced in using the internet for shopping. The event that leads to the occurrence of this phenomenon goes back to the lack of trust among some UK consumers in purchasing through the internet which is discussed in 7.3.2.2 and shown in figure 7-9. The lack of trust in using EC makes consumers more concerned about providing their personal information online, which makes them perceive EC as a hazardous way of making commercial transactions.

The particular context within which the action/interaction strategies are taken to handle the phenomenon is the desire to increase the consumers' skills in using computers and the internet. This is because - as explained in 7.3.2.1 and depicted in figure 7-9 - consumers who are able to use technology are more capable of buying their services and

products online, compared with consumers who have no skills in using computers and the internet. In addition, the second set of structural conditions that affect the action/interaction strategies that relate to the consumers' attitude are confidence and experience. These conditions, mentioned in 7.3.2.2, affect the attitude of UK consumers about EC and providing their personal information online. Consumers should be aware of how to make an online transaction and know the procedures for completing it. If this is achieved they will get the required experience and, with time, they will be more confident and accept the idea of dealing online.

Therefore, the strategies that should be taken to handle this phenomenon are concentrated in the need to focus on the youth category by concentrating on the type of modules that are taught in schools and universities. As discussed in 7.3.2.1 and 7.3.2.2, and depicted in figure 7-9, this will support the young with sufficient knowledge about the benefits of using EC, and maintain them with the mechanisms for conducting a commercial transaction through the internet. If this happens, then the outcome of these strategies will revolve around the capability of increasing their confidence and experience which should change their attitudes toward EC and agree to providing their personal information online.

To conclude, the attitude of UK consumers affects electronic commerce implementation. This is because when they perceive EC positively they will be more encouraged to participate in EC activities and provide their personal information online. However, when they perceive it negatively consumers will be more concerned about their personal information, less willing to purchase online and prefer buying directly from the shop. Therefore, their attitude to EC should be changed through concentrating

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on the type of education that is provided for the young generation, which will make them more confident and experienced in using technology and increase their trust in providing their personal information online.

Finally, as data are related on the conceptual, property and dimensional levels for each major category, then data complete their grounding and could be presented diagrammatically or narratively. Therefore, figure 7-9 below clarifies the relationship between the core category and all other categories, how these influence privacy concerns and as a result electronic commerce in the UK. Besides, it clarifies how the core category plays a significant role in solving these drawbacks.
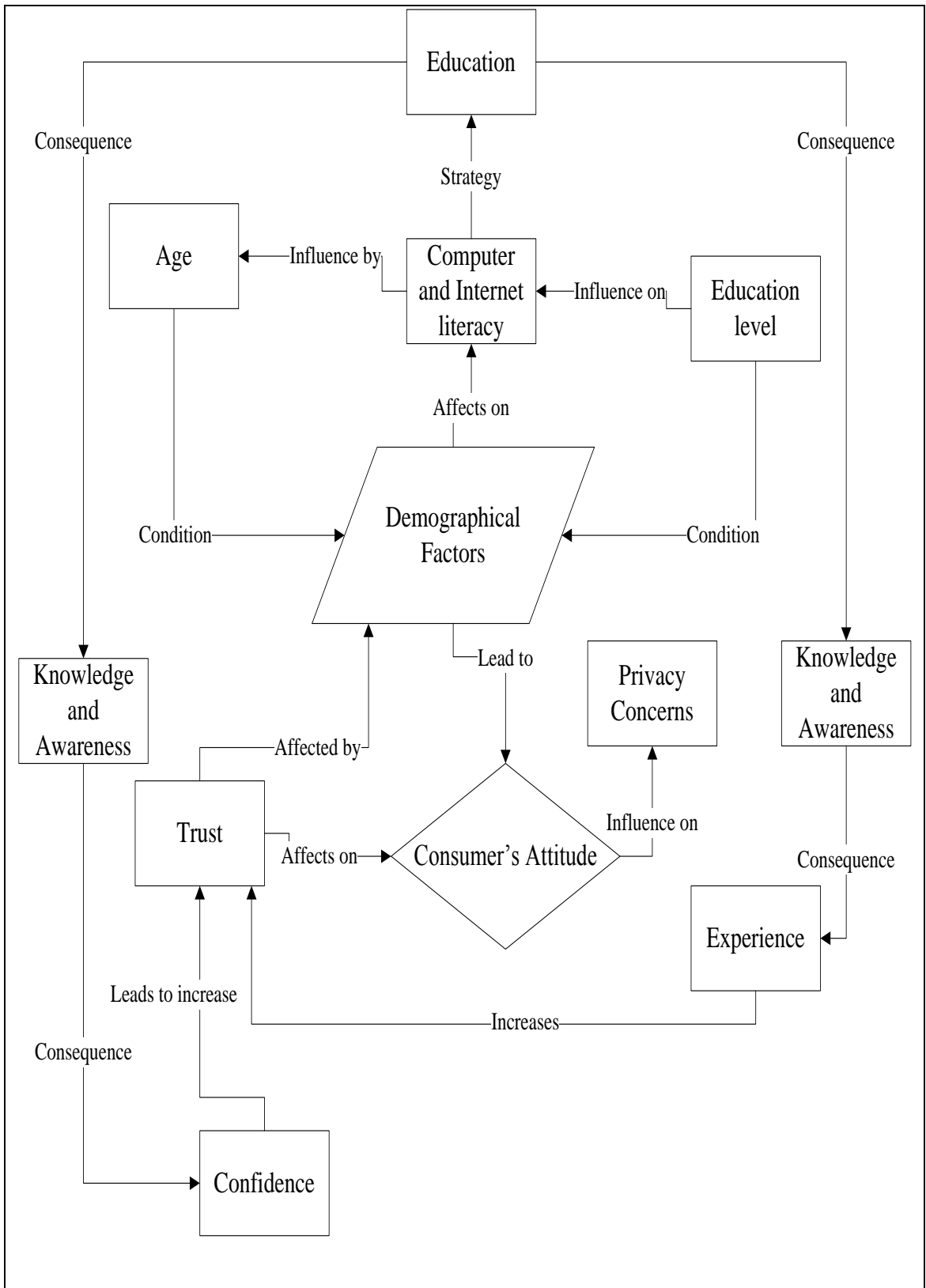
Figure 7-9: Relationship between the Core Category and other Categories from the UK Context.

Figure 7-9 clarifies the relationship between the sub-categories and the core category. Furthermore, it provides the impact of the core category on the privacy issues and electronic commerce in the UK. This figure presents all the factors that affect the privacy concerns of UK consumers. It shows that the consumer's attitude is the essential element in overcoming the pitfalls that affect their willingness to provide their personal information online.

7.4   Conclusion

This chapter has discussed electronic commerce implementation in Jordan and the UK through discussing the inhibitors that influence EC development in Jordan and the UK and how they influence the privacy concerns of consumers. Each of these factors has been discussed in more detail from the respondents' viewpoint in sections 7.2 and 7.3. The factors emerged through the application of grounded theory, particularly the techniques proposed in the Straussian approach for data collection and analysis tools.

On the one hand, from the Jordanian context, a theory generated from respondents' perceptions is that of collaborative responsibility for solving privacy concerns and electronic commerce development. By contrast, consumer attitudes is the theory generated from the UK context, as discussed in sub-sections 7.2.5 and 7.3.3.

The following chapter will offer further explanation of the status of electronic commerce in Jordan and the UK with regards to privacy issues, through comparing the emergent grounded theories that were presented in 7.2 and 7.3 and linking those factors with the literature review discussed earlier in this research. Additionally, it will explore the reasons behind the differences between the emergent factors in Jordan and the UK.

8   Discussion of Findings

8.1   Introduction

As discussed in chapter 5, particularly in 5.2, this research has implemented an interpretivism theoretical approach which aims to create a framework for building a theory that sees a reality that is a social product of the everyday interactions of individuals. This enables the researcher to uncover people's experience of particular events and provides contextual knowledge that enables him to gain an understanding of the meaning of human actions. This is achieved by conducting grounded theory as a systematic methodology in the social sciences that involves the possibility of generating a theory from the data. In the current research, two grounded theories emerged which gave the researcher the capability to understand the reality of the situation in Jordanian and UK contexts.

This chapter will discuss the two grounded theories that become apparent from the Jordanian and UK contexts. However, these theories were presented in the previous chapter and need to be explained in this chapter with regards to the work of other authorities. They will be discussed in the following two sections. This helps the researcher to gain greater understanding about the situation in Jordan and the UK regarding privacy. If this happens, then it gives the opportunity to compare the two countries in regard to the theories that emerged from each context.

8.2   Grounded theory from the Jordanian context

As mentioned in the introduction, this section will discuss the grounded theory that emerged from the Jordanian context concerning the privacy issue and its influences on EC implementation. It appears from the Jordanian context that privacy concerns constitute one of the main drawbacks influencing EC implementation in Jordan.

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Moreover, this concern is affected by the other factors that influence EC implementation. However, to discuss that theory narratively, it is beneficial to remember it diagrammatically as presented in figure 7-5.

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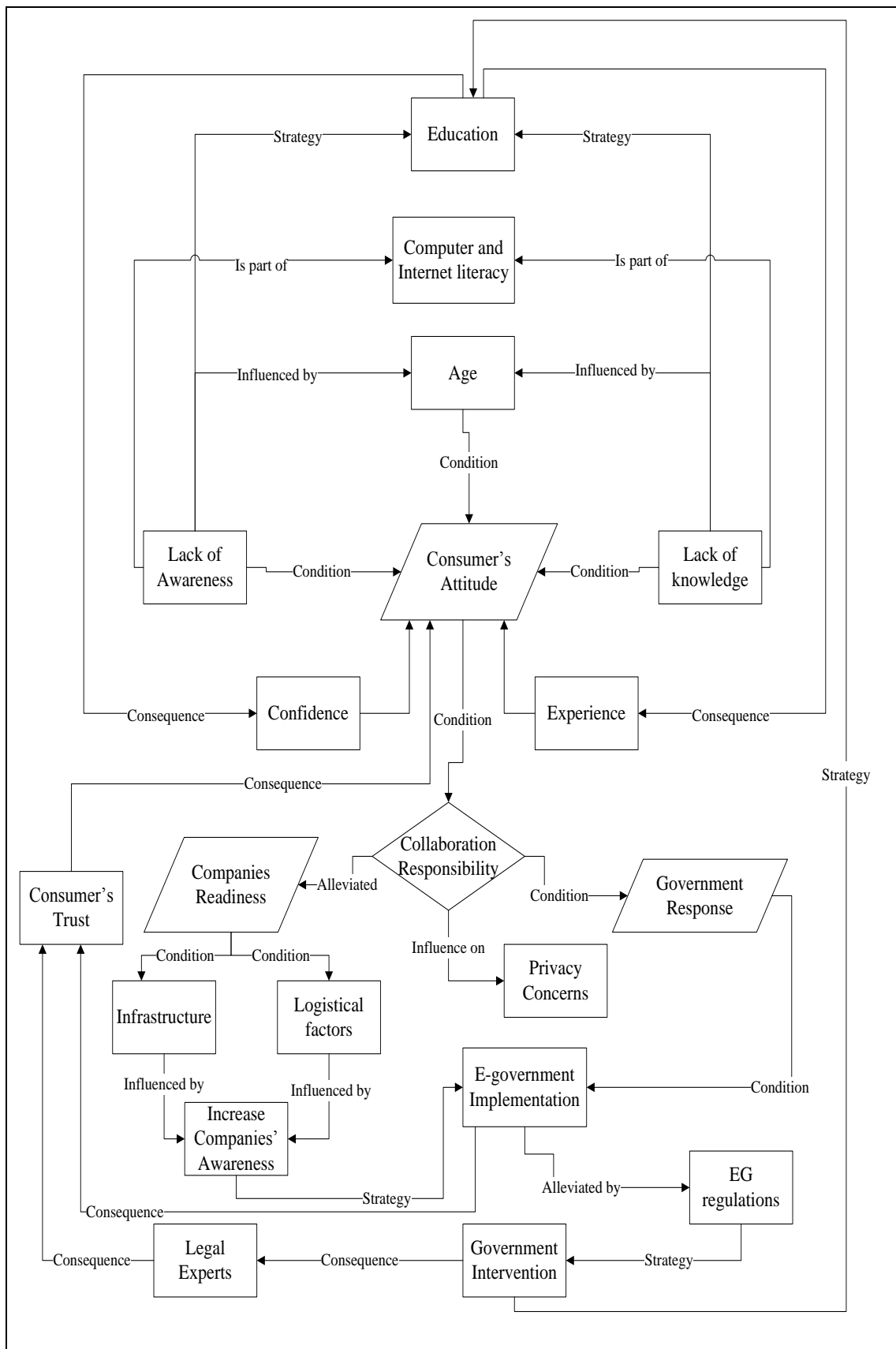
Figure 8-1: Grounded Theory from the Jordanian Context.

As confirmed above, collaborative responsibility, as depicted in figure 8-1, between government, companies and consumers, is the main solution to the privacy issue that influences EC implementation in Jordan. However, to make this section more interesting and readable, it will be divided into three sub-sections emphasising the role of consumers, government and businesses in each sub-section.

8.2.1 Consumers' Attitudes

This research reveals that consumers attitude towards their personal information needs collaboration between all stakeholders involved in the EC sector to reduce their concerns about it. This becomes clear when the findings reveal that Jordanian citizens' attitude to EC activities influences their willingness to purchase online and provide their personal information online. For example, this study refers to the fact that Jordanian consumers prefer not to buy from a faceless seller because they want to communicate with that seller, which supports other scholars who mentioned the same fact in their work (Dengke et al. 2010; Martin and Camarero 2008; Murphy and Tocher 2011; Tofara et al. 2008). Thus, the findings reveal that this attitude is affected by the lack of trust in Jordanian websites, and several authors emphasise that dealing with a virtual seller creates a lack of interpersonal trust between them (Kshetri 2007; Tsiakis and Sthephanides 2005). This makes consumers concerned about providing their personal information to that seller (Tofara et al. 2008; Tsiakis and Sthephanides 2005).

Furthermore, this study agrees with several published works that the Jordanian attitude is affected by the consumers' purchasing habits. For example, they prefer to touch and see the item before purchasing it (Siqing et al. 2010; Stansfield and Grant 2003; Warrington et al. 2000), and they want to communicate directly with an actual seller,

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and pay without needing to worry about fraudulence or identity theft (Kshetri 2007; Tsiakis and Sthephanides 2005).

8.2.1.1 Age of consumers
In addition, this research explored whether the age of Jordanian consumers affects their concerns toward their personal information. It revealed that youth in Jordan, in comparison with the previous generation, are less concerned about purchasing online and providing their information online. Scholars such as Jiang and Ji (2009); Stansfield and Grant (2003) and Wu et al. (2012) emphasise that the concerns of individuals about their personal information are higher in older people compared with those from younger age groups.

8.2.1.2 Confidence and Experience
This research and the previous literature attribute this high concern about personal information in older people to their lack of experience in using computers and the internet compared with the younger generation (Jiang and Ji 2009), which makes them worried about fraud and less confident about using payment tools such as credit cards (Kapurubandara and Lawson 2008; Kshetri 2007). The findings reveal that people can gain this confidence by engaging in buying on the internet a number of times and becoming habituated to using the internet. This research agrees with other researchers that confidence is a significant factor for electronic commerce implementation and is driven by the individual's experience in browsing the internet, so that when he acquires such experience he becomes more comfortable with it and consents to sharing his personal information through the internet (Kapurubandara and Lawson 2008; Kartiwi and MacGregor 2007; Kshetri 2007; Ramanathan 2011).

8.2.1.3 Knowledge and awareness

Additionally, this research reveals that Jordanian consumers' attitude towards providing their personal information online is affected by the lack of knowledge and awareness among them about EC activities. Concerning this, the Jordanian National Strategy for Electronic Commerce mentioned that most Jordanians who do not purchase online are not aware of the benefits of electronic commerce and at the same time they do not know how to make sure that a website is secure. This lack of knowledge and awareness creates some concerns about sharing their personal information and creates a kind of mistrust towards dealing with a virtual seller. In addition, the previous literature affirms that insufficient awareness of EC on the part of consumers will influence their ability and willingness to purchase online (Kapurubandara and Lawson 2008; Kartiwi and MacGregor 2007; Khatibi et al. 2003; Kshetri 2007; Ramanathan 2011).

However, this research discloses that knowledge and awareness could be affected by prior computer experience influencing the individual's intention to use new technology applications such as electronic commerce; and this requires an intervention from the government side to overcome the consumers' computer and internet illiteracy. This call for the need of government intervention is consistent with the calls that several Jordanian scholars, such as Ajmian (2009) and Al-Sukkar and Hasan (2005), advocated.

In addition, the findings reveal that lack of knowledge and awareness is influenced by the consumers' education level, particularly considering the lack of websites with Arabian contents as Arabic is the official language in Jordan, which requires consumers to be able to speak another language. In this respect, this research is consistent with other research that argues that language constitutes a drawback for electronic commerce implementation in Jordan (Abu-Samaha and Samad 2007; Kapurubandara and Lawson

2008). However, language might not be a problem in the future because English is the second language in Jordan and students now start learning English from the primary school stage.

8.2.1.4 Quality of Education

This research finds that concentrating on education strategies helps to overcome computer illiteracy in the new generation. As revealed here, the more educated people are keener and better able to use electronic commerce due to fewer worries about privacy concerns; correspondingly, those who are less educated are not so willing to purchase online due to their high concerns about privacy. Regarding this, the 2010 Jordanian Department of Statistics study reveals that 84% of university graduates are able to use a computer compared with 66% of school-leavers. Therefore, computer modules should become compulsory for all students in schools and universities (Ajmian 2009; Al-Nagi and Hamdan 2009).

If this happens, then the findings reveal that the possibility of increasing confidence and experience among Jordanian consumers will be enhanced, and this will affect their attitude towards purchasing online and providing personal information online.

8.2.2 Companies Readiness to Practise EC

This research reveals that Jordanian companies share responsibility with the government for increasing or decreasing the consumers' willingness to participate in EC activities and as a consequence their concerns about their personal information. Findings confirm the impact of companies' readiness to practise EC on the consumers' attitude toward purchasing online and providing their personal information.

8.2.2.1 Consumers' Trust

This research explored the view that consumers' trust in purchasing online from Jordanian companies is affected by readiness of Jordanian companies to practise EC. This result affirms what has been published before, that trust is an essential factor for the success of electronic commerce in both developing and developed countries (Chai and Pavlou 2002; Palvia 2009; Rust et al. 2002; Teo and Liu 2007). Lack of trust causes about 30% of online users to reduce their purchases through the internet due to concerns over fraud and identity theft (Jiang and Ji 2009). This concern over internet security makes them afraid of providing their personal information online and makes them more worried about their capability to control this personal information.

8.2.2.2 Infrastructure

However, findings reveal that Jordan and Jordanian companies are not completely ready to practise EC activities and this appears from the Economist Intelligence Unit Report published in 2010. This report reveals that Jordan ranked 51 out of 70 in the E-readiness ranking.

This research attributes this low ranking to several factors; for instance, the infrastructure is not ready to promote EC in Jordan. The internet penetration rate is low in Jordan and obviously influences the extent of electronic commerce activities. For example, according to the Official Statistics Department, as provided in table 4-3, in 2010 only about 22 percent of Jordanian households had internet access, and this is concentrated in the capital, creating a kind of digital divide between social classes (Abu-Samaha and Samad 2007; Datta 2009; UNCTAD 2000). Besides, only 4% of Jordanian companies had a website and just 1% implemented electronic commerce in their activities (Ajmian 2009).

This research explored how the low rate of internet penetration is due to the lack of infrastructure facilities that affect companies' willingness to practise EC in Jordan. According to the National Strategy for Electronic Commerce, electricity is one of the factors that influence the implementation of electronic commerce in Jordan. This is because electricity is very important for accessing the internet, and electricity supply is still a problem in some areas of Jordan. In addition, the high cost of internet subscriptions compared with Jordanians' income has an impact on the consumers' and companies' willingness to practise EC. In turn, this makes consumers less comfortable about online shopping due to their lack of experience and confidence in using the internet, which makes them worried about providing their personal information, and makes companies less enthusiastic to construct websites.

Furthermore, findings reveal that Jordanian companies are not encouraged to provide their goods and services online because the Jordanian citizens are less inclined to get internet subscriptions in their homes. This study mentioned that the lack of willingness among citizens can be attributed to the lack of competition between Internet Service Providers (ISPs) in Jordan; this is consistent with what has been published before and emphasises that internet penetration is influenced by the consequent high costs of accessing the internet (Kapurubandara and Lawson 2008; Lu 2005). Concerning this, one Jordanian citizen describes his personal experience with one of the famous internet providers in Jordan and says "*This past year, I made what I now consider to be one of the worst decisions of my entire life: I switched to [name of company*]. Disastrous isn't even the right word to describe this company." He adds "*I never once got the speed I was paying for, despite the high price tag I was willing to pay.*"

In this regard, these findings are consistent with the fact that bandwidth is a critical factor for the success of online transactions (Kshetri 2007). This is because when the internet is fast the transaction will be completed within a short time, compared with the situation where the internet speed is slow and stretches out the time taken to complete the transaction over a long period. With the latter situation, consumers become worried and discouraged from completing the transaction and prefer to buy directly from shops, where they have no concern about their personal information.

Also, as discussed above, a lack of companies' readiness is displayed in the lack of websites with Arabic content that offer internet sales, preventing many consumers from shopping online, except those who can surf English websites. Language interrelates with other factors related to electronic commerce. With the lack of websites using Arabic, individuals need to be able to speak other languages to support them in using computers and the internet. In this regard, for example, the impact of existing Arabic websites can be seen in the example where 1% of non-English speakers in Slovenia used the internet, which emphasises how language is a global barrier to surfing the internet (Kshetri 2007).

In addition, this research finds that the low ranking in E-readiness is attributed to the quality of the logistics sector in Jordan, which affects the companies' capability to practise EC and consumers' trust toward EC and their willingness to provide their personal information online. The quality of the delivery service is a global factor in the success of electronic commerce. For example, the growth of electronic commerce in the USA is attributed to the availability of infrastructure and physical services (Datta 2009; Hawk 2004; Ramanathan 2011).

This study reveals, and the National Strategy for Electronic Commerce emphasised, that in Jordan the delivery service is one of the factors that influences electronic commerce. For example, some respondents attribute this hurdle to the fact that not all buildings in Jordan - only those in Amman, Irbid and Al-Aqaba out of 12 Governorates - are labelled and numbered. However, other regions still lack a proper addressing system, which makes running an effective delivery service quite hard, particularly in the rural areas. For example, one of the most famous confectionary makers in Jordan delivers its products worldwide but only to the west Amman area within the country. This is the affluent and serviced area of Jordan, highlighting the reality of the lack of appropriate delivery services available to the rest of the Jordanian nation.

However, findings in this research reveal that creating an appropriate infrastructure sector, and giving the capability to provide good logistical services will assist Jordanian businesses to practise electronic commerce activities. As the findings indicate, this readiness enhances competiveness among internet service providers and delivery service providers, so that the internet penetration rate will increase and the delivery service will become available for anyone, anywhere. This makes consumers more encouraged to purchase online with fewer concerns about their personal information. Therefore, for the sake of moderating the impact of these issues, the findings show the need for collaboration between businesses and government to create an environment ready for practising EC. From the governmental side for example, and as will be discussed below, roads need to be constructed and electricity supplies spread. In addition, businesses need to be satisfied about practising EC because this research explored that increasing awareness inside Jordanian companies about the impact of EC

on their profits and sales has a significant role in their willingness to practise EC and implement its requirements.

8.2.2.3 Awareness among Jordanian Companies

This research shows that awareness among Jordanian companies about the importance of EC is significant in encouraging them to implement EC activities and fulfill its requirements in partnership with government. This is consistent with a prior work which found that 88 percent of participants reveal that the lack of awareness is the essential factor that influences SMEs to implement EC (Kapurubandara and Lawson 2008). They blame this high proportion on the belief that EC cannot give any financial profit, that EC does not suit the way they practise business as well as the lack of available information about EC. In addition, the National Strategy for Electronic Commerce agrees with Shannak and Al-Debei (2005) when they found that awareness among Jordanian SMEs should be increased, because several studies found that Jordanian companies believe that electronic commerce provides no benefits for them (Alsultanny n.d; Fathian et al. 2008; Khatibi et al. 2003; Shannak and Al-Debei 2005).

However, due to this lack in awareness, as one of the Amman Chamber of Commerce Directives revealed, only 4% of Jordanian companies had a website and just 1% implemented electronic commerce in their activities (Ajmian 2009). Therefore, the findings showed that increased awareness in SMEs has a significant effect on their attitude to fulfilling the requirements of practising EC activities, which increases the consumers' trust in dealing with such companies.

8.2.2.4 E-government programme

The research finds that collaboration between companies and government is required to increase the consumers' trust in providing their personal information online. For

instance, this collaboration could be seen in the implementation of an e-government programme in Jordan.

The Jordanian government launched a National E-government Initiative in 2000[52], but, according to the 2010 United Nations E-government Survey[53], Jordan ranks 51st out of about 200 countries in the E-government Development Index. In addition to the e-government programme commencing in 2000, the e-commerce strategy was issued in 2007 but because citizens are still not accommodated and habituated to the online governmental service offered, they still have concerns about purchasing online and providing their personal information online. This is because up to the time of writing this work, only a slight improvement has been achieved in Jordan regarding this programme. Some government services are offered online, such as the Certificate of Non-Criminal Record and Vocational Licence Issuing services.

Moreover, the factors that influence e-government in Jordan are the same as those influencing electronic commerce (Al-Omari 2006; Alsmadi et al. 2009; Mofleh and Wanous 2008), which require collaboration between businesses and government to overcome them and encourage consumers to conduct e-commerce and provide their personal information online. However, this research reveals that consumers need to trust dealing online to encourage them provide their personal information online. As depicted in figure 8-1, the e-government programme is the critical factor for encouraging businesses to participate in e-activities and increases the trust among consumers towards dealing online. This is consistent with one Jordanian commenter, Halaweh (2009), who

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[52] The e-government website is at http://www.jordan.gov.jo.
[53] Available at: http://unpan1.un.org/intradoc/groups/public/documents/un/unpan038851.pdf.

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stressed the impact of the e-government initiative in Jordan on consumers' and businesses' acceptance of this alternative shopping option.

8.2.3 Government Response
Together with companies increasing consumers' trust in EC, the findings reveal that political factors play an essential role in increasing the consumers' willingness to purchase online and provide their personal information through the internet and, as a result, increase their trust towards contracting with the Jordanian companies through the internet.

8.2.3.1 Legal Environment
This research listed several ministries that are responsible for the implementation of EC in Jordan. These are the Ministry of Communications and Information Technology, the Ministry of Trade and Industry, the Ministry of Justice, the Ministry of Public Works and Housing, the Ministry of Transport, and the Ministry of Municipal Affairs.

In addition, this research reveals that EC and EG implementation requires appropriate regulations that control all matters related to these new kinds of commercial transactions. This presumption is consistent with the National Strategy for Electronic Commerce which mentioned that the incomplete nature of the laws applicable to e-commerce as discussed in sub-section 4.2.1, is one of the main drawbacks that affect electronic commerce implementation in Jordan (Abu-Samaha and Samad 2007; Al-Omari and AL-Omari 2006; Al-Omari 2006; Alsmadi et al. 2009).

In this regard, as one scholar mentioned, the lack of regulations in developing countries makes consumers more concerned about their personal information compared with the

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situation in the developed countries where privacy matters are regulated by law (Milberg et al. 1995).

To put it briefly, this research mentioned that the Electronic Transaction Act 2001 is only a temporary law and all of its provisions are adapted from the UNCITEAL Model Law, which constitutes a general provision for electronic commerce. This research agrees with prior work mentioned that there is no Consumer Protection Act to protect online consumers (Al-Ibraheem and Tahat 2006). For example, this consumer protection law should be enacted and recognise that the electronic signature has changed the process that forms a contract (Balloon 2001). In regards to electronic signatures, there is no Electronic Signature Law in Jordan which leaves several matters concerning formation of electronic transactions not subject to regulation. This leads, as mentioned in the National Strategy of Electronic Commerce, to the lack of a Certification Authority for E-signatures which would be responsible for determining the requirements for issuing digital certificates and the conditions to deal with e-signature as a kind of personal information which needs protection from misuse.

Furthermore; this research reveals that there is no Data Protection Act in Jordan which raises consumers' concerns about their personal information. This is consistent with the prior work which mentioned that businesses store large amounts of personal information which might be misused or stolen and harm individuals (Wittzack 2010). However, the single provision that exists in the Jordanian Electronic Transaction Act (ETA) regarding privacy protection can be found in article 36. This article states that any institution engaged in the authentication of documents shall be penalised by the payment of a fine amounting to JD5000 if it submits faulty information in the registration application, or

discloses the secrets of clients, or violates the regulations and instructions that are issued in accordance with this law.

However, the aforementioned regulations are concerned with EC and EG activities, and this justifies why EG implementation influences EC activities in Jordan and the willingness of companies and consumers to practise EC. This research's results are consistent with prior scholars' work, for example Nsour (2003), who calls for the enactment of all those regulations governing the new applications of technology, such as e-commerce and e-government, which require an intervention from the public authorities to enact all required regulations that promote EG and EC implementation in Jordan. So, if this happens, then there is the possibility of overcoming one of the main hurdles illustrated in figure 8-1 and mentioned in the National Strategy of Electronic Commerce, i.e. the lack of professional lawyers and judges in electronic commerce matters. As illustrated in figure 8-1 the existence of expert people in EC matters is one of the requirements that increase trust among companies and consumers about practising EC.

In brief, regarding the legal environment concerning electronic commerce, several ministries and public bodies are responsible for working on regulations. The main proposed regulations in this framework are the Electronic Transactions Act (Electronic Commerce Act), the Electronic Signature Act and the Consumer Protection Act. The first two have to be prepared by the Ministry of Communications and Information Technology, while the last has to be prepared by the Ministry of Trade and Industry. However, these ministers are just responsible for preparing a draft of these laws and then send it to the Legislation and Opinion Bureau, which is the government body

responsible for revising and preparing drafts of laws before they are presented to the Parliament, Senates and Deputies. This process justifies why the government is a key player in the legislation process because it must send the drafts of laws to the parliament.

Moreover, after the regulations have been approved by Parliament and signed by the king, the new law is published in the official gazette and enters the implementation stage. With regard to data protection issues, judges and lawyers become more qualified in dealing with all such issues where there are enacted regulations, particularly taking into consideration that Jordan applies a civil law legal system where codification is very important. However, in the absence of regulations an absence of people qualified to judge these matters may be supposed.

In the next sub-section, more discussion and explanation of the grounded theory from the Jordanian context will be presented. This will be achieved through linking findings with the existing privacy theories and with the Jordanian political and economical circumstances.

8.2.4 Theoretical Explanation

In this sub-section, more discussion will be presented to obtain more understanding of the phenomena from the Jordanian context. As mentioned in 5.5.1, Urquhart et al. (2010) have mentioned a theoretical integration as a final step in grounded theory studies in IS. One of the advantages of the grounded theory method for information systems researchers is the obligation to engage with theories outside the discipline (Strauss 1987). This integration means relating the substantive theory, as an act of

collaborative research responsibility, to other theories in the same or similar field, which could help in the generation of formal theories (Urquhart et al. 2010).

Five different types of theories are seen as relevant to IS (Gregor 2002). Firstly, there is a theory for analysing and describing. This is, "the most basic type of theory and describes or classifies specific dimensions or characteristics of individuals, groups, situations or events by summarizing the commonalities found in discrete observations" (Fawcett and Downs 1986 , p.4). Secondly, there is a theory for understanding, which explains how and why something has occurred (Gregor 2002), Thirdly, there is a theory for predicting, able to predict outcomes from a set of explanatory factors and, includes statistical techniques, such as, correlation or regression analysis (Gregor 2002), Fourthly, there is a theory for explaining and predicting, which is interested in "what is," "how" "why" and "what will be." The final type of theory is a theory for design and action, which explains how to do something (Gregor 2002, p.2). It is, however, recognized that many authors would restrict the use of the word theory to the fourth type of theory discussed above (Gregor 2002; Weick 1989). An example of this type of theory is the Roger's Theory of the Diffusion of Innovations (Rogers 1995). This theory involves descriptive, explanatory and predictive components.

To achieve that, the first sub-section, privacy theories (as discussed in 3.3) will be revisited and linked with the Grounded Theory. In the second sub-section, Diffusion of Innovations Theory will be discussed to obtain more understanding of the theory about EC implementation in both Jordan and the UK. Revisiting these theories will help to reflect upon a theoretical discussion and obtain more understanding of the grounded

phenomena regarding the privacy issue in Jordan, that is, about the grounded theory and its influence in EC development.

8.2.4.1 Theoretical explanation of findings based on privacy theories

As mentioned in section 3.2, privacy is an elusive concept and difficult to define. So the aim of this sub-section is not to define the right of privacy but to discuss the privacy theories and which of them is the most appropriate to understand the differences between the normative and descriptive aspects of privacy. This makes it possible to distinguish between the condition of privacy and the right to privacy and between a loss of privacy (in a descriptive sense) and invasion of privacy, in a normative sense, (Tavani 2007).

As discussed in 3.3, divergent theories were addressed to determine when the right of privacy is invaded. However, the appropriate theory to interpret the grounded theory is the Restricted Access/Limited Controlled Theory (Tavani 2007). This is because, based on the control theory of privacy – see sub-section 3.3.1 - the individuals' desire to control information about themselves is simply impossible to realise in a highly computerised culture. In addition, undocumented theory - see sub-section 3.3.2 - classifies some cases as a violation of privacy despite their not being so, and vice versa. Furthermore, in addition to the privacy theory mentioned above, other contemporary theories may be used to acquire much understanding of the emerged grounded theory, particularly the contextual integrity theory (Nissenbaum 2004a). However, it seems that each of the traditional privacy theories examined in section 3.3 is inadequate, because each one confuses privacy with such notions as liberty, as seen in the Non-intrusion theory or Samuel Warren's and Louis Brandeis' theory. Others confuse it with solitude, as seen in seclusion theory when defining privacy as being alone (Tavani 2007), while

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privacy is also confused with autonomy and secrecy notions, as seen in the limited and restricted theories.

Moor (1990) proposes the restricted access/limited control theory of privacy, where permission to access information is given only to the right people. Thus, Beardsley (1971) argues that individuals have the right to decide *when*, *how* and to *what* extent information about them will be revealed to others. Based on Moor's and Beardsley's arguments, the lack of data protection regulations in Jordan influences consumers' concerns towards their privacy. This is because such regulations maintain consumers capability to know where the zones of privacy are and under what conditions and to whom information will be given.

The Restricted Access/Limited Control theory is the most applicable theory to get more understanding of the emerged grounded theory from the Jordanian context rather than other theories due to numerous reasons. Firstly, the restricted access theory is not suitable because it is in contradiction with the need of businesses to handle and process the consumers' personal information to complete online transactions. This restricted access theory ignores the right of the data subject in controlling the flow of his personal information rather than restricting it, or choosing to grant others, such as businesses, the right to access his personal information (Tavani 2008, p.140). In addition, as mentioned above, the control theory is not suitable in the field of EC because it is not possible to get total control of personal information in a computerised society, particularly taking into consideration the importance of personal information to complete online transactions, and this theory is not clear about the kind of personal information over which one can expect to have control to enjoy privacy – as discussed in section 3.3.

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For the reasons mentioned above, it is seen that the restricted access/limited control theory is the one suitable to interpret the theory that emerged from the Jordanian context with regard to privacy phenomena. This is because Jordanian consumers need to ensure they have the right to restrict access to their personal information to a particular entity, and at the same time they have a limited control of their personal information to provide businesses with the kind of personal information essential to complete online transactions. So, any consumer enjoys some degree of control with respect to considerations involving choice, consent and correction (Tavani 2008, p.145). In other words, a consumer's privacy should be conceptualised as relating to personal freedom and autonomy (Roessler 2009). Therefore, this type of personal information has to be normatively not naturally private which needs establishment of norms to protect one's privacy (Moor 1990, p.76). To know which kinds of information need normative protection and which do not, Moor's framework determines that consideration is given by comparing the consequences of requiring or not requiring some information to be private.

Like Moor's theory, Nissenbaum (2004a), in her alternative benchmark theory of contextual integrity, shows why it is always the context in which information flows, not the nature of the information itself, that determines whether normative protection is needed. She notes that privacy norms protect personal information considered to be intimate and sensitive, such as financial records, but they typically do not extend to personal information about us in public places. Based on her framework there are two type of norms, norms of appropriateness which circumscribe the types or nature of information about various individuals that, within a given context, is allowable, expected, or even demanded to be revealed, and norms of distribution which restrict the

flow of information within and across contexts (Nissenbaum 2004a). When either norm has been breached, a violation of privacy occurs.

As depicted in figure 8-1, privacy and other e-regulations are considered the cornerstone for the success of EC activities. Therefore, the lack of these regulations leads to a lack in considering the effect that ICTs have on personal privacy in terms of four factors: 1) the amount of personal information that can be collected, 2) the speed at which personal information can be exchanged, 3) the duration of time that the information can be retained, and 4) the kind of information that can be acquired (Tavani 2008, p.140). However, the figure illustrates that privacy concerns among Jordanian consumers are attributed to the failure of EG implementation in Jordan due to the lack of privacy regulations that regulate EG services. So, how will the individuals practise their right and decide when, how, and to what extent information about them will be revealed to the government to buy e-services if there is no governmental portal that provides these services? This makes individuals less experienced and less confident to deal online.

However, the lack of law concerning data protection does not mean that privacy is not important for Jordanian citizens. Jordan is a country with an Islamic background where the provisions of the Islamic jurisprudence and "Sharia" rules are very important as sources for the law. The right of privacy can be seen in the Holy Qur'an, particularly in the following verse:

> "O you who have believed, do not enter houses other than your own houses until you ascertain welcome and greet their inhabitants. That is best for you; perhaps you will be reminded. 24:27"

Furthermore, the Jordanian constitution mentions privacy as one of the fundamental human rights in various sections, such as Article 10 of the constitution which states that "dwelling houses shall be inviolable and shall not be entered except in the

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circumstances and in the manner prescribed by law." Moreover, article 18 of the constitution states that "postal, telegraphic and telephonic communications shall be treated as secret and as such shall not be subjected to censorship or suspension except in circumstances prescribed by law." In addition, the right of privacy can be seen in the temporary Electronic Transaction Act (ETA); particularly in article 37 when it states that "any institution engaged in the authentication of documents shall be penalised by the payment of a fine amounting to JD5000 if it submits faulty information in the registration application, or discloses the secrets of the client, or violates the regulations and instructions that are issued in accordance with this law."

The above examples, explicitly and implicitly, emphasise the importance of respecting the privacy of other people. Thus, in the electronic commerce field the right of information privacy must be protected for two reasons: firstly, from article 10 and article 18 of the constitution, and the Islamic jurisprudence and Sharia rules. A similar concept can be applied in EC where the unauthorised entities should not interrupt other personal information when they deal online. This discloses the responsibility of government and businesses to provide consumers with such protection as they need to conduct online transactions without concern toward their privacy.

Secondly, the Jordanian temporary Electronic Transaction Act mentions information privacy when it obliges businesses not to disclose the secrets of the clients. The problem in this law is that it does not regulate the relationship between the data subject and data controller through stating the right of the data subject in deciding when, how and to what extent information about him will be revealed to the data controller. For that, laws are very important in the Jordanian case because the law can decide the type of

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information that needs to be protected. When the data protection act is enacted in Jordan, it will determine the type of personal information that needs legal protection. In this situation personal information will be protected normatively not naturally.

Therefore, the failure of EG implementation in Jordan affects the e-readiness of companies to practise EC activities. This goes back to the relationship between EG and EC and the impact of EG implementation on the increase of companies' and consumers' willingness to practise EC. For that reason, if the government and businesses perform their tasks in furthering favourable conditions for electronic commerce, then the consumer will be the last stage in the electronic commerce cycle. The increase of trust and confidence within the individual will increase his willingness to purchase online and provide personal information online. However, as the narrative presented above and the following figure shows, the collaborative responsibility of all stakeholders in the field of EC is required to overcome consumers' concerns about their information privacy. If the government and businesses do not perform their duties, however, then the consumers are not able to practise EC activities even if they want to.
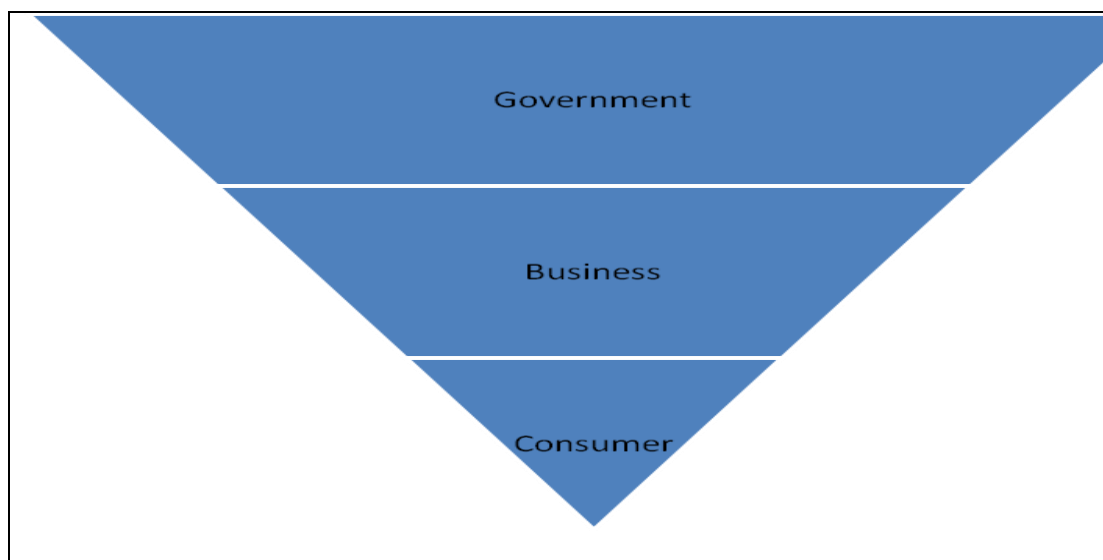
Figure 8-2: The Hierarchical Responsibilities of Jordanian Stakeholders Concerning EC.

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This figure shows that the first stage in electronic commerce implementation should begin from the government side. The government's intervention gives an impression to both businesses and consumers about its commitment to implementing electronic commerce in Jordan. It is important to consider some procedures prior to the commencement of online retail, such as the legal environment, while other tasks, such as increasing consumers' and business awareness and knowledge, could be fulfilled during or after the performance of the essential foundational tasks.

However, the researcher has to be careful and not assign to the government, alone, the responsibility for the failure of EC and EG implementation in Jordan. This is because many reasons can be presented to explain and excuse that failure. This will be discussed in the following sub-section.

8.2.4.2 Further explanatory factors based on special Jordanian situation

This sub-section is going to discuss further explanatory factors that excuse the failure of the Jordanian government to fulfil the requirements of practising EG; which is considered the central inhibitor influencing privacy. These are the political and economic factors.

8.2.4.2.1 Economic situation

Jordan is a poor country in the Middle East with insufficient supplies of water, oil and other natural resources, which explains the government's heavy reliance on foreign assistance. Jordan encounters numerous economic challenges including high rates of poverty, unemployment, inflation and a large budget deficit. To face these challenges, Jordan has implemented some economic reforms which started in 1999 when the government opened the door to the privatisation of state owned companies such as telecommunications, phosphate and potash companies. However, 2011 had a large

influence on Jordanian internal matters, as will be explained below, due to unstable political matters in the Arab countries. Besides this, the government has implemented some economic reforms to improve the living conditions of Jordanian citizens. All these extraordinary expenditures led to a deficit in the budget; according to governmental sources the 2012 budget's deficit was estimated at JD3 billion and this required the government to seek support from the rich Arab countries, particularly the Kingdom of Saudi Arabia, to cover some of this budget deficit.

The economic challenges facing the Jordanian government led it to cut most expenditure and leaves only essential expenditure. This affects EC implementation in Jordan because most improvements in the infrastructure sector will not be implemented due to the extraordinary deficit in the budget.

8.2.4.2.2 Political Situation
The Hashemite kingdom of Jordan has a significant and vital geographical location in the Middle East. In other words, Jordan is located in an inflammatory area. Syria, Iraq, Palestine and Saudi Arabia all share their borders with Jordan. So, everyone who knows the political situation of these countries understands they have the greatest impact on Jordanian interior matters. The unstable situation in Syria has led to the transfer of more than 100,000 Syrian refugees to Jordan since the beginning of the crisis in 2010. The Jordanian government announced that those people will receive health and medical care in hospitals and health centres affiliated to the ministry for free, said the Minister of State for Media Affairs and Communications and a government spokesman. He adds this has led to an increase in the financial burden on a government budget that is already suffering from a deficit. According to Jordanian expert economists, the Syrian refugees will cost the Jordanian budget more than JD100 million per year, equivalent to JD1000

per year for each person[54]. This is even the number of Syrian refugees living in Jordan remains stable. So, to cover this predicted shortfall in the budget, the government will increase taxes on Jordanian citizens or reduce government spending, which affects all infrastructure projects.

Some commentators may argue that the Syrian crisis started in 2010, and ask why the government did not fulfil the requirements of EC and EG before that date, particularly as the EG initiative was started in 2000 and the EC strategy in 2007? The answer to this question is very simple, because the Iraqi crisis started in 1990 and is still affecting Jordan. For example, from 2003 until now, there have been approximately, according to non-official records, 700,000 Iraqi refugees hosted in Jordan. This huge number affects a government budget that already suffers from a deficit as mentioned above. For example, the government allows Iraqis to be registered in public schools for free, and to receive free health care in hospitals and health centres affiliated to the ministry too. This led the government to find alternatives to cover this deficit in the budget, which affects the EC implementation plan in Jordan.

Moreover, the Egyptian crisis has had an extraordinary impact on the Jordanian interior situation. This is because Jordan imports Egyptian gas to fill about 80 percent of its needs to produce electricity. However, since the unstable Egyptian political situation began, a series of attacks on the gas pipeline have occurred; this has led the government to use heavy oil to generate electricity. This interruption in Egyptian gas, according to the Jordanian Electricity Regularity Commission, caused a loss of $1.4 billion in 2011 leading the government to increase the price of electricity to compensate for losses resulting from the interruption of imports of Egyptian natural gas.

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[54] See: http://www.sarayanews.com/object-article/view/id/126845.

Furthermore, the Libyan crisis, even with the geographical distance between Libya and Jordan, has had an influence on Jordan. The high reputation of the health sector in Jordan on the regional and global level has led more than 25,000 Libyans, according to the last figures announced by Jordanian official sources, to come to Jordan and receive health care in Jordanian hospitals. This means that about 50,000 Libyans came to Jordan since 2011, if it is supposed that each patient was accompanied by one person and no other Libyans came for other reasons. So, the government needs an alternative plan to deal with the unpresidented number of visitors over a short period, taking into consideration the number of Syrian and Iraqi refugees who live in Jordan.

Finally, the Palestinian-Israeli conflict is the essential dilemma for all Arab countries, and Jordan in particular. This is because the Palestine issue is the first Jordanian concern due to its impact on the Jordanian internal situation. Jordan hosts 10 camps for Palestinian refugees distributed throughout the whole Jordanian area. According to the United Nations Relief and Works Agency for Palestine Refugees (UNRWA), more than 42% of all Palestinian refugees live in the Jordanian camps, and this makes up 31% of the total population of the Kingdom of Jordan. Besides this, all Palestine refugees in Jordan have full Jordanian citizenship with the exception of almost 140,000 out of more than 2 million refugees originally from the Gaza Strip, which was administered by Egypt up to 1967. They are eligible for temporary Jordanian passports, which do not entitle them to full citizenship rights such as the right to vote and employment with the government[55].

Furthermore, the Palestinian cause influences the implementation of EC, involving the EG initiative, in Jordan due to its economic effect on the government's plan for

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[55] http://www.unrwa.org/etemplate.php?id=66.

fulfilling the requirements of practising EC. This effect was released by the General Director of the Department of the Palestinian Affairs when he announced in 2011 that Jordan bore costs for the Palestinian refugees of about JD750 million a year.

From the aforementioned discussion; it is obvious that the exceptional Jordanian situation encumbers the Jordanian government's efforts to fulfil EC requirements. With regards to the collaborative responsibility as a theory that represents the situation in Jordan, the impact of the external factors rather than the internal factors on EC implementation in Jordan is obvious and, as result, on the privacy concerns among Jordanian consumers. This is because the annual governmental plans are hugely affected by extraordinary factors that affect the governmental budget and make the government cut expenses in the service sector to counter this deficit. This led to an influence on the EG programme implementation, which is considered – as depicted in figure 8-1 - the main drawback affecting consumers' concerns toward their privacy and EC implementation at all. This is consistent with figure 8-2 which emerged from this research and determines the hierarchical responsibilities that ensure the success of EC implementation in Jordan and in developing countries that have similar situation. This figure depicts that EC development is possible if the government, primarily, fulfils its requirements which encourages businesses and consumers to accept the concept of dealing online.

Finally, Jordanian consumers are not willing to allow access to their personal information because government and businesses do not fulfil their responsibilities. This makes consumers concerned about their personal information because their right to decide when, how, and to what extent information about them will be revealed to others,

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is doubtful. The next section will discuss the theory pertaining to the UK situation, which enables a comparison between both countries in regards to EC implementation.

8.3 Grounded theory from the UK context

As mentioned in the introduction, this section will discuss the grounded theory from the UK context concerning privacy issues and its influence on EC implementation. However, before starting this discussion of the emerged theory narratively, the following figure explains that theory diagrammatically.

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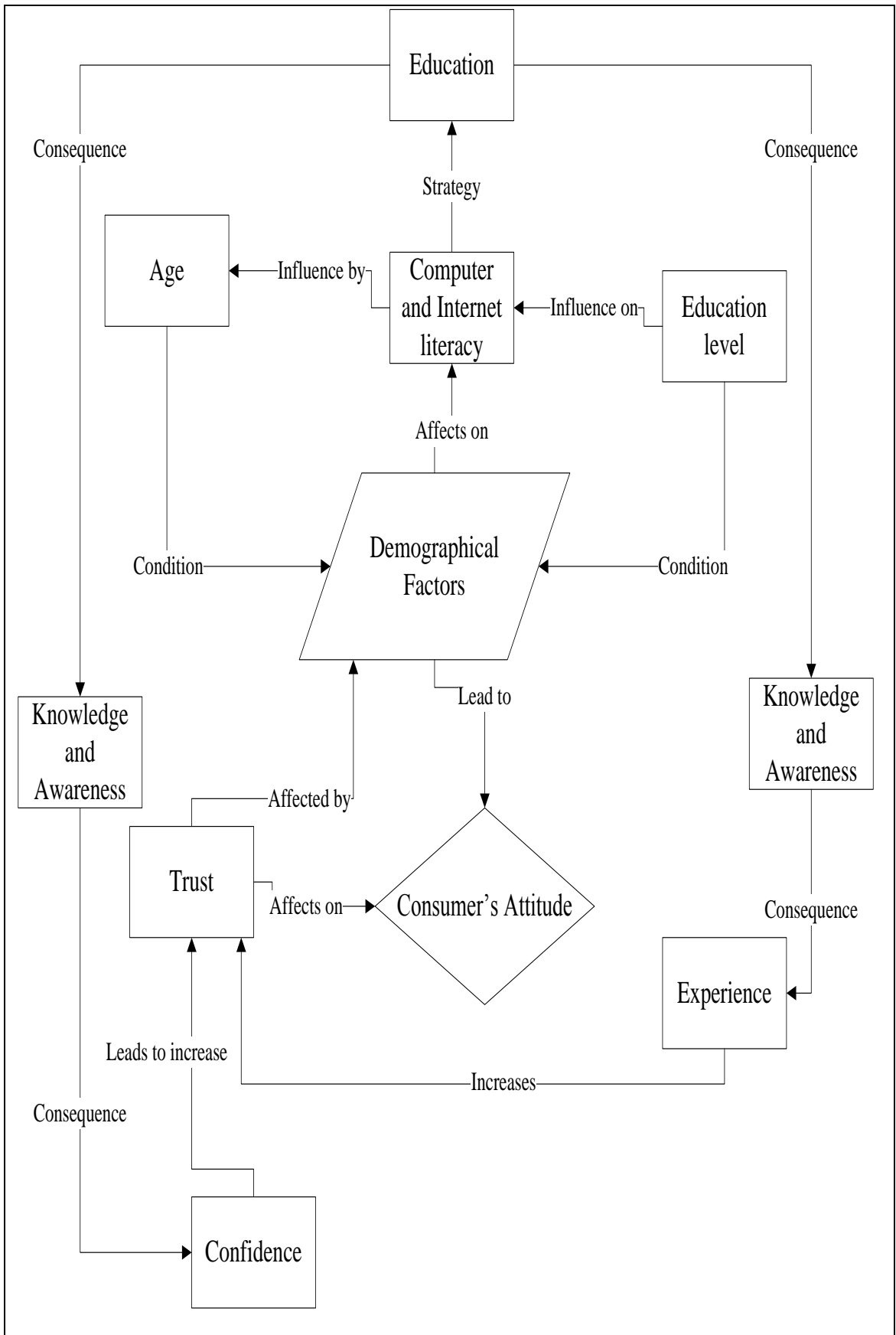
Figure 8-3: Grounded Theory from the UK Context.

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As confirmed above, consumers' attitudes, as depicted in figure 8-3, are the main solution to the privacy issues that influence EC implementation in the UK. However, this section will be divided into the following sub-section.

8.3.1 Consumers' Attitude

The UK consumers' attitude is the main observable fact that hinders online purchasing and sharing personal information online. The findings show that consumers feel that concerns about privacy constitute one of the main drawbacks influencing their willingness to participate in EC activities in the UK. This is consistent with what the prior works concluded when they mentioned that privacy constitutes one of the major factors that influence electronic commerce in western countries (Boston Consulting Group 2010; McMillan 2003).

To follow this, the findings reveal that consumers' attitude is the main impediment influencing consumers and discourages them from placing their personal information on the internet. Recent literature indicates that one of the reasons that prevent people from purchasing online is their attitude towards the concept of dealing with a faceless seller. This is because they prefer communicating with an actual seller (Dengke et al. 2010; Furnell and Karweni 1999; Jamal et al. 2005; Martin and Camarero 2008; Murphy and Tocher 2011; Siqing et al. 2010; Stansfield and Grant 2003; Tofara et al. 2008; Tsiakis and Sthephanides 2005; Warrington et al. 2000). They prefer to pay without needing to worry about fraud or identity theft (Kshetri 2007; Tsiakis and Sthephanides 2005), and they prefer to touch and see the item before purchasing it (Hand et al. 2009; Siqing et al. 2010; Stansfield and Grant 2003; Warrington et al. 2000). However, as revealed from the findings, demographic factors play a significant role in influencing the consumers' attitude and willingness to provide their personal information online. As depicted in the

above figure, the consumers' age and education level affect their attitude about their personal information.

8.3.1.1 Age of Consumer
The findings are consistent with the prior studies, such as Jiang and Ji (2009) and Stansfield and Grant (2003), when they revealed that older people are more concerned about their personal information than young people. Jiang and Ji (2009) base this concern on the fact that older people are less experienced in using computers and the internet compared to young people, which makes them worried about fraud and makes them less keen to use payment tools such as credit cards (Kapurubandara and Lawson 2008; Kshetri 2007). For example, the UK National Statistics Office mentions that 87 percent of people aged between 16 and 30 years old had used a computer in the period between January-April 2006, compared with 45 percent of those aged 50 and over for the same period. This emphasises the findings attributing this impression to the fact that computer use varies by age.

8.3.1.2 Education Level
The findings agree with the National Information Statistics study, (Office for National Statistics 2010) when both assert the impact of education level on the consumers' attitude to participating in online activities and providing their personal information. This research is consistent with other researchers, Ramanathan (2011), Khatibi et al. (2003), Kapurubandara and Lawson (2008), Kartiwi and MacGregor (2007) and Kshetri (2007), when they emphasise that insufficient knowledge and awareness of EC on the part of consumers will influence their ability and willingness to purchase online. Besides this, the findings reveal that educated people perceive EC more positively than less educated people do, which agrees with the prior works when they stressed that

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educated consumers have fewer concerns about sharing their personal information compared with less educated consumers (Jiang and Ji 2009; Kapurubandara and Lawson 2008; Stansfield and Grant 2003).

As also revealed by findings, the importance of education on the consumers' attitude can be seen in its impact on computer literacy, which plays a significant role in affecting consumers' attitude toward providing their personal information online. The previous works confirmed what this research found when they stated that prior computer skills influence the individual's intention to use new technology applications such as electronic commerce (Tan and Teo 2000) and, if they manage to gain experience in using the internet, they become more confident and less concerned about their personal information (Jiang and Ji 2009).

Language does not constitute a problem for using the internet for shopping online, because English is the official language in the UK and there are diverse websites with English content, which facilitate users' ability to surf the internet and explore different websites. This means that language does not constitute a hurdle for internet browsers in the UK, unless they surf a non-English website, which happens in exceptional circumstances such as if they do not find what they looking for in the English websites.

The findings confirm that schools and universities play a significant role in changing the students' attitude toward participating in EC and providing their personal information online, through improving knowledge and awareness about EC among the new generation and convincing students to accept EC as an alternative option for shopping. The UK's National Office for Statistics data for 2010 agree with these findings when they relate the reasons that prevent more than 9 million adults in UK from accessing the

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web to their educational level, because less educated people have less confidence about accessing the web.

8.3.1.3 Knowledge and Awareness
Hence, as findings reveal and the above figure shows, if their knowledge and awareness is increased through schools and universities then their experience and confidence about technology will be increased. Ramanathan (2011) stated that an individual's experience in browsing the internet affects their concern about sharing their personal information online. Therefore, consistent with the findings of this research, other scholars, such as Khatibi (2003) et al.; Kshetri (2007); Kapurubandara and Lawson (2008); Kartiwi and MacGregor (2007) and Ramanathan (2011), stressed that when the consumer acquires such experience he will be more comfortable about dealing online and less concerned about providing his personal information. Then he will be more confident in using technology for purchasing his needs by engaging in buying on the internet a number of times.

8.3.1.4 Experience and Confidence
Moreover, the current research stresses that the consumers' attitude toward providing their personal information online depends on and is influenced by their experience and confidence in using technology. According to the National Consumer Council research, the lack of confidence in providing personal information online is the main hurdle for shopping online (BBC 2000), and that is why 43 percent of 1000 people surveyed were not willing to provide their personal information online (BBC 2005). Therefore, the findings are consistent with the previous literature which affirms the impact of confidence and experience on the trust among consumers, where trust is considered an essential factor for the success of electronic commerce (Chai and Pavlou 2002; Office

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of Fair Trading 2009; Palvia 2009; Rust et al. 2002; Teo and Liu 2007). Past studies reveal that about 30 percent of online users have reduced what they have bought through the internet due to concerns over fraud and identity theft (Jiang and Ji 2009). However, in the next sub-section, more discussion and explanation of the emerged grounded theory from the UK context will be presented. This will be achieved through linking findings with the existing privacy theories.

8.3.2 Theoretical explanation of findings based on privacy theories and UK situation

In this sub-section, more explanations will be presented to obtain g\reater understanding of the emerged theory from the UK context. To achieve this, privacy theories – as discussed in sub-section 8.2.4.1 and section 3.3 – will help to understand the results from the UK situation.

The United Kingdom enacted the Data Protection Act in 1998, which ensures a similar perception to that which the controlled/restricted theory emphasised. This DPA goes with Moor's theory when it assumes that consumers need to ensure that permission for accessing their personal information is given to the right entities only. It emphasises the right of consumers in deciding when, how, and to what extent information about them will be provided to others.

For example, provision 7 of the DPA obliged the data controller to inform the data subject that his personal information is being processed by the data controller or on behalf of him. Thus, the data controller has to determine the description of the personal data of which that individual is the data subject, the purposes for which they are being or are to be processed and any other entities for which the data controller might disclose personal information. This gives the consumer the ability to ensure that the permission

to access his personal information is given only to the right people. This is because they know, or at least have to know, how, when and what the kind of personal information is required from them to complete the online transaction.

The DPA goes with what has been said by Tavani (2008) and emphasises the right of the individual in having some degree of control over personal information with respect to considerations involving choice, consent and correction. For example, the right of consent is obvious in provision 7 mentioned above, while the right of choice can be seen in provision 10 of the DPA which states "an individual is entitled at any time by notice in writing to a data controller to require the data controller...to cease, or not to begin, processing, or processing...on the ground that... a) the processing...is causing or is likely to cause substantial damage or substantial distress to him or to another, and b) that damage or distress is or would be unwarranted". In addition, the DPA grants the data subject the right of correcting wrong personal information when it states in the fourth data protection principle that "personal data shall be accurate and, where necessary, kept up to date."

The above examples assert Roessler's argument when she stressed that consumer's privacy should be conceptualised as relating to personal freedom and autonomy (Roessler 2009), and the DPA grants the data subject the freedom and autonomy to decide when, how and to what extent information about them will be revealed to others. In addition, the DPA has determined the kind of personal information that has to be protected, and this is obvious in the third personal information principle which states that "personal data shall be adequate, relevant and not excessive in relation to the purpose or purposes for which they are processed." In addition the sixth data protection

principle states that "personal data shall be processed in accordance with the rights of data subjects under this Act."

The above conditions oblige the data controller to determine the kind of personal information required to complete the transaction, and compel the data controller to protect such personal information from invasion and illegal use or disclosure, it states "in accordance with rights of data subjects" and, in the first data protection principle, that "personal data shall be processed fairly and lawfully." Therefore, it can be seen that the protection for personal information is required not because the information in its nature is very important but because it is normatively private. This is coherent with Moor's argument that the type of personal information has to be normatively, not naturally, private which needs norms to be established to protect one's privacy (Moor 1990). This is because the context in which information flows, not the nature of the information itself, determines whether normative protection is needed (Nissenbaum 2004a).

Consequently, consumers' attitudes about placing their personal information online and purchasing online, are influenced by the ability of consumers to limit and restrict access to their personal information without their permission. Therefore, if governments and businesses wish consumers to engage in EC, then they should encourage them to provide their personal information online through fulfilling all requirements that protect all personal information from invasion. This is clarified in the seventh data protection principle when it states that "appropriate technical and organisational measures shall be taken against unauthorised or unlawful processing of personal data and against accidental loss or destruction of, or damage to, personal data".

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The government and businesses are the key players in protecting privacy and influence the consumers' attitude to providing their personal information online. This is very clear in figure 2-1 which presents a theoretical framework for privacy protection in electronic commerce. Therefore, the role of the UK businesses and government in EC development in the UK are considered explanatory factors for the success of EC implementation, which will be explained in the following paragraphs.

8.3.3 Further explanatory factors

This sub-section will discuss further explanatory factors that led to the success of EC implementation in the UK and reduce the concerns of consumers toward their privacy as the central inhibitor influencing shopping online. These are readiness of UK businesses to practise EC and the government role in EC development factors.

8.3.3.1 The readiness of UK businesses' to practise EC

Figure 8-3 bases the privacy concerns among UK consumers on their attitude to providing their personal information online, but nothing is mentioned in the findings about the role of businesses. The literature, as discussed in 4.2.2, is consistent with the researcher's findings when it agrees that consumers' attitudes to EC are affected by the readiness of the technology sector (Dabholkar 1996; Datta 2009; Rotchanakitumnuai and Speece 2003). Thus, the researcher finds that the e-readiness issue in the UK does not constitute a hurdle for SMEs to practise EC due to several reasons.

Firstly, SMEs in the UK are aware about the massive benefits that they can gain when adopting EC activities and they are aware of the impact on the consumers' attitude to EC, particularly since 2000, when the UK Online for Business initiative was launched (Simpson and Docherty 2004; UK Online 2000). This initiative helped the SMEs to be aware about everything they need concerning electronic commerce, and this awareness

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increases the businesses' willingness to practise EC. This gives the UK the most developed internet grocery industries (Key Note 2007), and it has become one of the leading forces in electronic commerce and the second largest online advertising market for electronic commerce after the United States (Boston Consulting Group 2010).

Secondly, according to the Economist Intelligence Unit, the UK ranked 14th in the 2010 e-readiness rankings. For example, the National Statistics Office revealed that 77 percent of UK households had internet access in 2011 compared with 73 percent in 2010[56]. The researcher attributes this high rate of internet penetration to the role of competition between the ISPs, provided in table 4-5, and this is consistent with what previous literature, such as Kapurubandara and Lawson (2008) and Lu (2005), emphasised regarding the impact of competition between ISPs on the consumers' attitude toward accepting technology.

Thirdly, despite the fact that EC requires high implementation costs, including equipment and software and qualified IT staff (Industry Canada 2006; Kartiwi and MacGregor 2007; Tofara et al. 2008), about 79 percent of UK companies had websites in 2011, 15 percent of them were selling through the internet, and 7 percent selling through other ICTs [57]. This provides consumers with the capability to surf and explore these websites that offer EC services. Beside this, as UK SMEs are ready to offer EC services for consumers, they are ready to support them with good delivery services because the biggest companies that provide delivery services are located in the UK. The best example is that mentioned in the Supply Chain Digital Magazine which categorised

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[56] Available on National Office for Statistics at: http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-226727.

[57] More information at: http://www.ons.gov.uk/ons/dcp171778_245829.pdf

two delivery companies in UK as among the top 10 companies in the world offering a delivery service[58].

It is clear from the above, that most SMEs in the UK fulfil the requirements for practising EC activities and are ready to deliver this technology to the consumers. This gives consumers the impression that they can trust these businesses through the internet, and decreases their concerns about their privacy as businesses have tools adopted to support consumers with full protection for their personal information when providing it online.

8.3.3.2 The Government role in EC development

On the other side, the findings are consistent with the previous literature, as discussed in 4.3.2, in regard to the role of government in affecting consumers' reservations about providing their personal information online. This is because a previous study concluded that the UK government will be leading its citizens in e-business opportunities (Jutla et al. 2002). For example, EG implementation in the UK plays this role and E-government technology has its role in encouraging citizens to practise E-activities (Furnell and Karweni 1999; Jutla et al. 2002). This is justified if the following points are considered: firstly, according to the 2010 United Nations E-government Survey[59], the UK is ranked as the fourth country in the E-Government Development Index. In addition, the official website for e-government was launched in 2004, putting together all services in one

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[58] Available at: http://www.supplychaindigital.com/top_ten/top-10-business/social-media-marketing-facebook-twitter- linkedin-social-media-david-fischer-elise-steel-yahoo-market.

[59] Available at: http://unpan1.un.org/intradoc/groups/public/documents/un/unpan038851.pdf.

place,[60] which gives citizens the ability to find information and advice about all public services.

Moreover, the opportunity of locating governmental services online helps citizens gain familiarity with using technologies without the need to visit the physical location. This familiarity makes citizens more confident about using the internet and other ICT technologies to secure their requirements. For example, one indication that can be given is that the total value of sales through the internet in 2006 was about £130bn[61], while the total value of sales though all ICTs in 2002 was around £23bn[62], which indicates the significant increase after the advent of e-government services. This justifies the research's findings about the impact of confidence on the consumers' attitude and their willingness to participate in online activities and provide their personal information. This is because, according to the study conducted by the Office of Fair Trading in 2009, awareness among consumers affects their confidence in dealing online and, as a result, their attitude to dealing and providing their personal information online (Office of Fair Trading 2009). So, if their confidence is increased then their attitude regarding their concerns about providing personal information will be moderated.

Furthermore, the role of the UK's public sector in encouraging individuals to participate in online activities can be observed in the role of legislators and government to enact and perform the required regulations that control e-transactions. This is because, as the prior literature revealed, these regulations have an essential role in regulating EC activities (Jamal et al. 2005; McMillan 2003) due to the capability of businesses and

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[60] E-government website available on: http://www.direct.gov.uk.
[61] Source: http://www.statistics.gov.uk/downloads/theme_economy/ecommerce_report_2006.pdf .
[62] Source: http://www.statistics.gov.uk/pdfdir/ecom1203.pdf .

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government for the spamming of personal information (Raab and Goold 2009), which makes consumers unsure about providing their details online.

Thus, the government intervened to increase confidence and trust among consumers, regarding providing their personal information online, through enacting the essential regulations that provide protection for personal information from misuse. To achieve this target, the required regulations, as discussed in 4.3.2, were enacted to provide individuals with the legal protection they seek. A particular regulation is the Data Protection Act of 1998, which determines the duties of businesses and government that should be undertaken to support consumers with the protection they seek when dealing online. This Data Protection Act creates trust among consumers to deal online because it is enough for them to know that the processing of their personal information is protected by the law, even if the businesses are not aware about the provisions of this act. This is because there is an ancient legal doctrine which states that "ignorance of the law is no excuse". This means that businesses must comply with the provisions of this act and cannot argue a lack of awareness about these provisions. This justifies why people who were being interviewed in this research did not mention any hurdles concerning the processing of their personal information due to default from the government and businesses side.

As discussed in 2.6 and 3.4, businesses must comply with the provisions stated in the Data Protection Act, which makes consumers less worried about providing their personal information online. Gaining the consumer's approval is the main condition for completing online transactions, which means that the consumer's bank account should not be charged for this transaction unless the consumer gives the bank their approval for

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this charge. This gives the consumer the ability to control his bank account and refuse any strange movements in it. In addition, the data controller is obliged by law to obtain only the personal information required for completion of the transaction, but when the data controller obtains more personal information than he needs then he should get approval from the consumer. Furthermore, if the consumer feels that his rights have been invaded then he is entitled to complain to the Information Commissioner's Office (ICO), or the Information Tribunal that gives individuals or public authorities the right to appeal against the ICO's decisions.

In addition, the Data Protection Act requires businesses to specify the kind of personal information they need to complete the transaction before completion takes place. This provision gives the consumer the opportunity to refuse making contracts online with businesses which require unusual information for completing such kinds of transactions. Beside this, businesses are required by law not to keep the consumer's personal information longer than is necessary, taking into consideration the rights of the consumer to access his personal information and update it if something has changed, and prevents businesses processing his personal information if this causes damage or distress. Moreover, the businesses are obliged by the DPA to adopt appropriate technical and organisational measures against unauthorised or unlawful processing of personal data. This gives consumers confidence to buy online, with less concern, due to the legal and technical requirements that are stated in the DPA and provides them with the protection they seek for personal information.

In conclusion, based on the controlled/restricted theory of privacy, the UK consumers need to ensure their ability to restrict accessing of their personal information to the right

entities. Government and businesses in the UK fulfilled all requirements that protect personal information from illegal actions; this influences the consumers' attitude towards their privacy and willingness to deal online. This is because the DPA of 1998 allows them to know the kind and amount of information that will be collected from them, and takes into consideration the speed at which personal information can be exchanged and the duration of time that the information can be retained (Tavani 2008).

Finally, collaborative responsibility is the emerged GT from the Jordanian context while the consumers' attitude is important in the UK context, and this gives the researcher the opportunity to discuss these differences in more detail in the following section.

8.4 Comparison between the Jordanian and UK contexts based on diffusion theory of innovations

The two sections above have discussed the Jordanian and UK situations regarding privacy matters and their impact on EC implementation in both countries. It seems, however, EC implementation in both Jordan and the UK can be explained based on privacy theories as discussed above. Nevertheless, privacy theories do not present an abstract explanation for the theories from the Jordanian and UK contexts, because the EC implementation issue involves other factors than just privacy. Therefore, this section will compare the two theories based on another one that allows comprehensive and abstraction explanations. This theory is the Diffusion of Innovations Theory, which was developed by Everett Rogers in 1962. This section is divided into two parts; the first part will further clarify the nature of this theory while the second part of the theory is used to explain the diffusion of EC in both Jordan and the UK.

8.4.1 Diffusion of innovations theory

There are many theories used in IS research (Wade 2009), particularly by those interested in technology adoption (Oliveira and Martins 2011). Thus, the adoption and diffusion of information technologies by individuals and organisations are part of the process of IS (Al-Qirim 2007). For example, Gunter (2006, p. 365) declares that "e-government does not just depend on computer power but also on the willingness of people to adopt it as a normal form of interface in respect of public services." The most used theories are the Technology Acceptance Model (TAM), Theory of Planned Behaviour (TPB) (Ajzen 1991), Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al. 2003), Diffusion of Innovation (DOI) (Rogers 1995), and the TOE Framework (Tornatzky and Fleischer 1990).

With respect to Technological Innovation Theories, Everett M. Rogers (1995) is the best - known scholar in the area of diffusion research. His book, Diffusion of Innovations (4th ed.), is the most often cited work dealing with diffusion (Yates 2001) and it appears to be the most widely accepted theory by researchers in identifying perceived critical characteristics for innovations in IS research (Al-Qirim 2007; Iacovou et al. 1995; Jin et al. 2012; Karahanna et al. 1999; McGowan and Madey 1998). As Rogers points out, diffusion is not a single, all-encompassing theory, it is several theoretical perspectives that relate to the overall concept of diffusion; it is a meta-theory (Yates 2001). This is because it is not one, well-defined, unified and comprehensive theory. A large number of theories, from a wide variety of disciplines, each focusing on a different element of the innovation process, combine to create a meta-theory of diffusion (Surry and Farquhar 1997). According to Littlejohn (1992) meta-theory is theory about theory.

Roger's theory takes a different approach to most other theories of change. Instead of focusing on persuading individuals to change, it sees change as being primarily about the evolution of products and behaviours (Robinson 2009). In other words DOI is not about people who change but the innovations themselves (Robinson 2009). DOI is a theory of how, why and at what rate new ideas and technology spread through cultures, operating at the individual and company level (Oliveira and Martins 2011).

This theory can be used to study barriers to innovation adoption (Othman et al. 2010). It is argued that Diffusion of Innovation Theory is relevant to the study of electronic commerce. This is because electronic commerce has unique features suggesting that this area requires its own specific study (Ling and Bauer 2000). The Diffusion of Innovation Theory provides a framework for studying a phenomenon in its wider context. This research aims to investigate the factors that influence EC implementation and their interrelationship with privacy issues by applying Roger's framework to explain them. This will be discussed below. This is because DOI theory is a comprehensive one and involving a large number of theories with each one focusing on a different element of the innovation process.

Furthermore, as discussed elsewhere in this chapter, five types of theory are used in IS research. The mostly commonly used theory is the Theory for Explaining and Predicting. An example of this type of theory is the Theory of the Diffusion of Innovations, which is comprised of descriptive, explanatory and predictive components.

Many IS researchers use the Diffusion of Innovations Theory to study EC implementation in both developed and developing countries. It is the most widely

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accepted theory by researchers for identifying perceived critical characteristics for innovations in IS research (Al-Qirim 2007; Iacovou et al. 1995; Jin et al. 2012; Karahanna et al. 1999; McGowan and Madey 1998).

This theory was developed through four editions of Rogers's book, beginning in 1962 and it synthesises all the most significant findings and compelling theories related to diffusion. Thus, it is the closest any researcher has come to presenting a unified theory of diffusion. Four of the theories discussed by Rogers are among the most widely-used theories of diffusion: Innovation Decision Process; Individual Innovativeness; Rate of Adoption; and Perceived Attributes (Surry and Farquhar 1997; Yates 2001). The work of Ryan and Gross (I943) in rural sociology is cited as the beginning of diffusion research (Yates 2001). According to Rogers (1983), diffusion is the process during which an innovation is communicated through certain channels over time among members of a social system.

Rogers (1995) defines **diffusion** as a process by which 1) an **innovation,** 2) is **communicated** through certain **channels,** 3) **over time and** 4) among the members of a **social system**. These are the four main elements are identifiable in every diffusion research, campaign or program. The following figure shows the conceptual model of diffusion theory.

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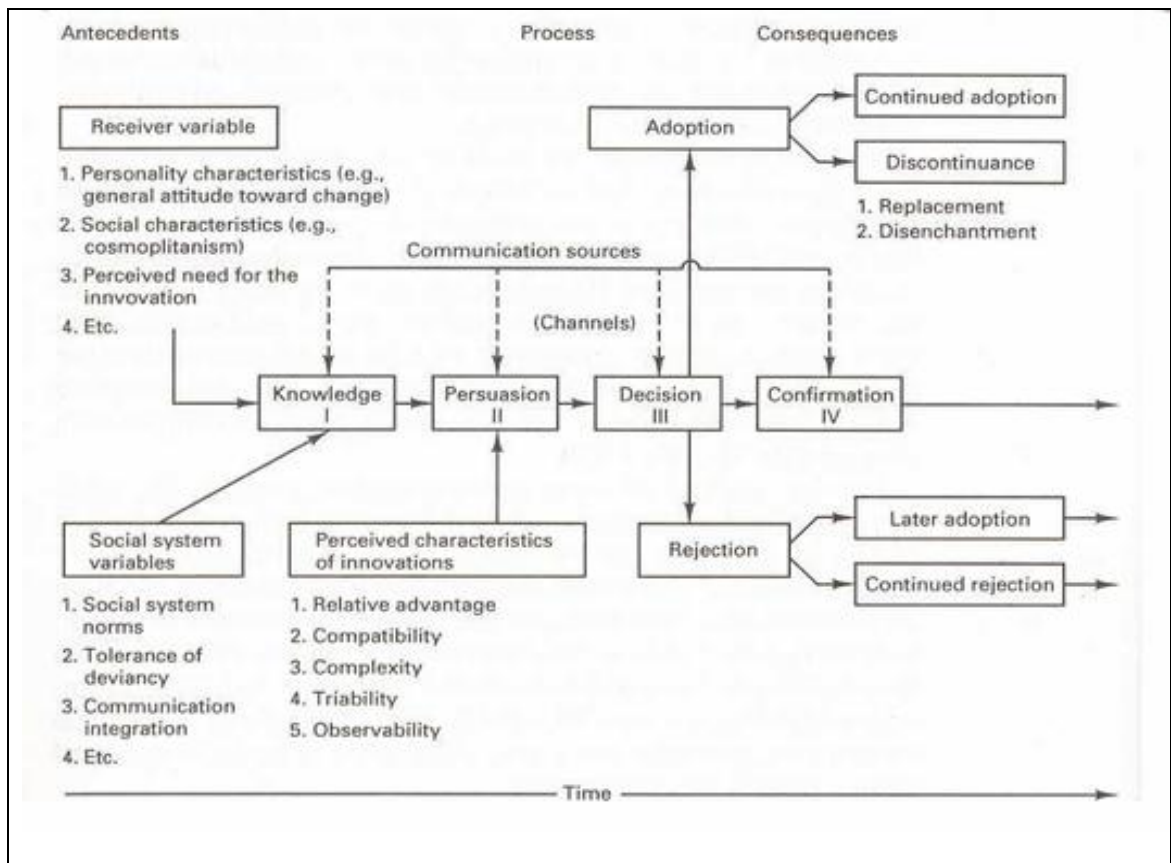
Figure 8-4: Diffusion of innovation model.
Source: (Rogers 1995, p. 170).

The following sub-sections describe these four elements: innovation, communication channels, time and a social system in more detail.

8.4.1.1 The innovation

Innovation is an idea, practice or object that is perceived as new by an individual or other unit of adoption. The perceived newness of the idea for an individual determines his/her reaction to it (Rogers 2003, p. 12). Therefore, if an idea seems new to the individual it is an innovation. But it is not just the newness that determines whether an idea is an innovation or not but it needs more than knowledge, such as, persuasion or a decision to adopt it (Rogers 1995). This will be discussed below. Further, the same innovation may be desirable for one adopter in one situation but undesirable for another one whose situation differs. Everett Rogers explain that there are four theories among

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the most widely used theories of diffusion. These are the Theory of Perceived Attributes; which will be discussed in this sub-section, the Innovation Decision Process Theory; The Individual Innovativeness Theory and The Rate of Adoption Theory (Rogers 1995, 2003; Surry and Farquhar 1997; Yates 2001). The last three theories will be discussed in 8.4.1.3.

1. The Theory of Perceived Attributes

As mentioned above, diffusion theory concentrates on how the potential adopters of the innovation perceive the innovation's characteristics. Two individuals could and usually do perceive the features of any given innovation differently (Jones et al. 2003). This theory posits that five attributes affect diffusion of an innovation (Othman et al. 2010; Surry and Farquhar 1997; Yates 2001). These attributes are:

1. Relative advantage

It is defined as the degree to which an innovation is perceived as better than the idea it supersedes by particular groups of users, measured in terms that matter to them, such as, economic advantage, social prestige, convenience and satisfaction (Rogers 1983; Yates 2001). In other words it is the degree to which an innovation can bring benefit to the potential adopters (Othman et al. 2010; Yates 2001). What does matter, therefore, is whether an individual perceives the innovation as advantageous and the greater the perceived relative advantage of an innovation, the more rapid will be its rate of adoption (Robinson 2009; Rogers 1995). In the current research, relative advantage is the level to which consumers perceive EC activities superior to traditional shopping methods.

2. Compatibility

Compatibility is defined as "the degree to which an innovation is perceived as being consistent with the existing values, past experience and needs of potential adopters

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(Rogers 1983, p. 223)". It is important the innovation be compatible with existing values and practices (Yates 2001), so an idea that is incompatible with the values and norms of social systems will not be adopted as rapidly as an innovation that is (Othman et al. 2010; Robinson 2009; Rogers 2003). Slyke et al.(2004) confirmed compatibility as a predictor of intention to shop on the web. In the current research, compatibility is defined as the way in which consumers conceive EC to be consistent with their work and lifestyle.

3. Complexity

It is defined as the degree to which an innovation is perceived difficult to understand and use (Alomari et al. 2012; Othman et al. 2010; Rogers 1983; Yates 2001). New ideas that are simple to understand are adopted more rapidly than innovations that require the adopter to develop new skills and understandings (Robinson 2009; Rogers 1995). Thus, it is reported that complexity is a significant predictor of citizens' intention to purchase goods or services over the web (Slyke et al. 2004). Relative advantage, complexity and compatibility have been found by Tornatzky and Klein (1982) to be consistently significant in technology adoption.

4. Observability

Observability is defined as the degree to which the results of the innovation are visible to others (Othman et al. 2010). The innovation must offer observable results and the easier it is for individuals to perceive its results, the more likely they are to adopt it (Robinson 2009; Rogers 1995; Yates 2001).

5. Trialability

Trialability is defined as the degree to which an innovation may be experimented with on a limited basis (Othman et al. 2010; Robinson 2009). This means the innovation can

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be tested for a limited time without adoption (Yates 2001). An innovation that is trialable represents less uncertainty to the individual who is considering it for adoption, as it is possible to learn by doing (Rogers 1995).

Finally, innovations that are perceived by individuals as having greater relative advantage, compatibility, trialability, and observability and less complexity will be adopted more rapidly than other innovations (Rogers 1995).

8.4.1.2 Communication channels

Communication is defined as the process by which participants create and share information with one another; through means by which the message gets from one individual to another in order to reach a mutual understanding (Rogers 1995, p. 18). The diffusion process, therefore, requires the existence of innovation, an individual or other unit of adoption that has previous knowledge of or has experience of using the innovation, another individual or unit of adoption that has no previous knowledge of or experience of using the innovation and a communication channel or means that facilitate a connection between the two units.

These factors necessitate the involvement of 1- mass media channels, such as, radio, television, newspapers and so on. These types of channels allow individuals to receive information about an innovation (Fanelli and Maddalena 2012). 2- interpersonal channels via face to face interaction, which play a major role during the persuasion stage (Fanelli and Maddalena 2012). 3- interactive communication via the internet, which has become more important for the diffusion of certain innovations at the present time (Rogers 2003). One of the most distinctive problems in the diffusion of innovations is that participants are usually quite heterophilous. Heterophily is defined as

the degree to which two or more individuals who interact are different in certain attributes, they are, therefore, not homophilous. Homophily is defined as a degree to which two or more individuals who interact are similar in certain attributes, such as, beliefs, education and socioeconomic status (Rogers 1995).

8.4.1.3 Time

The time dimension is involved in diffusion in three ways. As discussed above, there are four of theories among the most widely used theories of diffusion. The Theory of perceived Attributes has been discussed above and the remainder of the theories will be discussed in this section with respect to the impact of time on each one of them. These theories are The Innovation Decision Process Theory; The Individual Innovativeness Theory; and The Rate of Adoption Theory.

2. The Innovation-Decision Process Theory

This theory states that diffusion is a process that occurs over time and can be seen as having five distinct stages (Surry and Farquhar 1997; Yates 2001). An individual passes through a mental process. The adopters must first form the knowledge about an innovation. The potential adopters must learn about the innovation to form an attitude towards the innovation. During this phase, they must be persuaded of the merits of the innovation. Then a decision to either adopt or reject it is made. They must decide whether to adopt the innovation and implement the new idea. Once they adopt the innovation, they must implement it and confirm the decision. Then they must confirm that their decision to adopt was the appropriate one. Once these stages are completed, then diffusion results (Fanelli and Maddalena 2012; Rogers 1995; Surry and Farquhar 1997; Yates 2001). In other words, at various stages in the innovation-decision process

individuals seek information in order to decrease uncertainty about an innovation's expected consequences.

3. The Individual Innovativeness Theory

The Individual Innovativeness Theory is based on who adopts the innovation and when (Yates 2001). This theory states that innovativeness is the degree to which an individual or other units of adoption are relatively earlier in adopting new ideas than other members of a social system (Surry and Farquhar 1997). So, Rogers (1995) states that rather than describing an individual as less innovative than the average member of a social system it is more efficient to refer to the individual as being in the late or in some other adopter category as depicted in the following figure. A bell-shaped curve is often used to illustrate the percentage of individuals that adopt an innovation (Yates 2001).
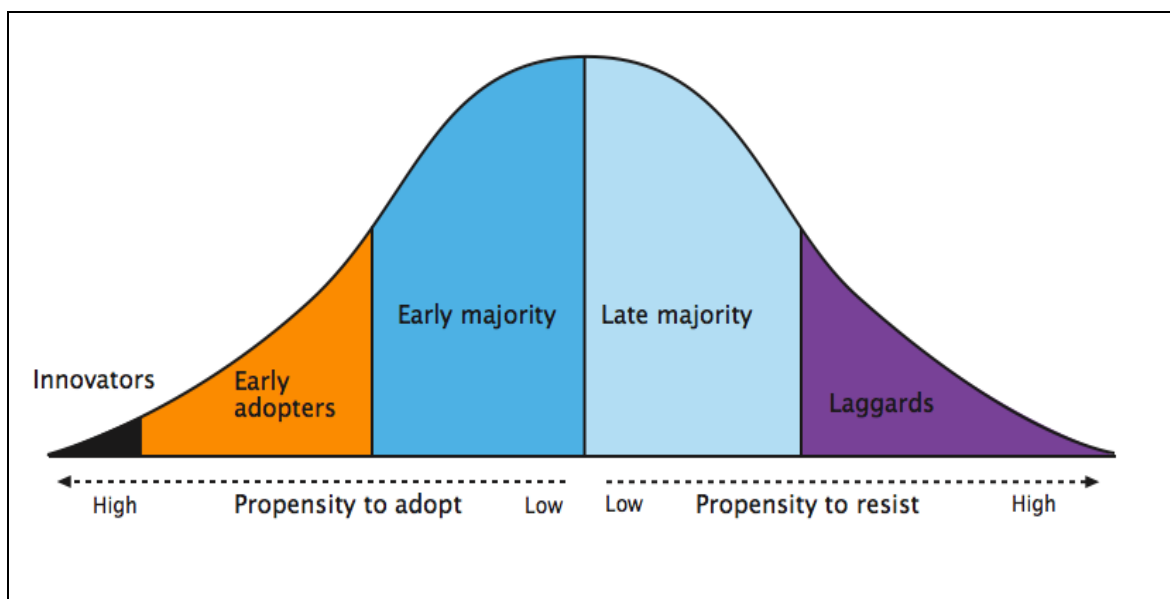
Figure 8-5: Potential adopters according to Rogers's theory.

As shown in above figure, diffusion researchers believe that there are five adopter categories of the members of a social system on the basis on their propensity to adopt a specific innovation (Robinson 2009). Robinson warns when thinking about these groups, not to imagine it is the researcher's function to shift people from one group to

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another, because it does not work that way. Rather it is best to think of the membership of each segment as static. He adds that innovations spread when they evolve to meet the needs of successive segments.

The first category of adopters is the innovators one, which constitutes 2.5% of the potential adopting population and who are considered risk takers and pioneers who lead the way. The second group of innovators help to spread the word about innovation to others. They are known as the early adopters and they constitute 13.5% of the potential adopting population. They do not need much persuading because they are on the lookout for anything that could give them a social or economic edge (Robinson 2009). The third and fourth groups are the early majority and late majority of adopters and each constitutes 34% of the potential adopting population. According to Rogers (1995) innovators and early adopters convince the early majority, while the late majority wait to ensure that adoption is in their interests. The early adopters are pragmatists with moderately progressive ideas and need a solid proof to adopt the innovation. In addition, the late majority adopters are conservative pragmatists because they follow mainstream fashions and established standards (Robinson 2009).

Finally, the last group is laggards and constitutes 16% of the potential adopting population (Rogers 2003, p. 221). Laggards are people who see a high risk in adopting a particular product or behaviour and they tend to be suspicious of new innovations, such as, electronic commerce, thus being extremely cautious in adopting it (Ling and Bauer 2000). Robinson (2009) clarifies the five groups in the following sentences:

> *"Of course, no one is an innovator or a laggard about all new ideas. That would be too exhausting. In reality, most people are majorities about most things and only innovators or laggards about certain specific things. We wouldn't say "John is a*

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laggard", we'd say "John is an iPhone laggard (Robinson 2009)."

4. The Rate of Adoption Theory

The rate of adoption is the relative speed with which an innovation is adopted by members of a social system (Rogers 1983, p. 134). The theory of the rate of adoption suggests that the uptake of innovations is best represented by an s-curve on a graph (Rogers 1995; Yates 2001). The rate of adoption of an innovation is the length of time necessary for a certain percentage of members of a social system to adopt the innovation (Jones et al. 2003). Rate of Adoption theorizes that an innovation goes through a period of slow, gradual growth before experiencing a period of relatively dramatic and rapid expansion (Rogers 1995; Surry and Farquhar 1997). Most innovations have an S-shaped rate of adoption but there is variation in the slope of the "S" from innovation to innovation.

8.4.1.4 Social systems

A social system is defined as a set of interrelated units that are engaged in joint problem solving to accomplish a common goal (Rogers 1995, p. 23). The members or units of a social system may be individuals, informal groups or organizations but each unit in a social system can be distinguished from other ones. Diffusion theory identifies a number of ways by which the social system can influence the adoption of an innovation including:

1. Social structure:

Structure is defined as the formal arrangement of units within a social system (Jones et al. 2003; Rogers 2003). This structure gives regularity and stability to human behavior in a system. Therefore, the well-developed social structure in such a system consists of hierarchical positions, giving individuals in higher-ranked positions the right to issue orders to individuals of lower rank. Their orders are expected to be carried out.

2. Communication structure:

This is defined as an informal structure that exists in the interpersonal networks that link a system's members, tracing who interacts with whom and under what circumstances (Rogers 1995). Thus, the structure of a social system can facilitate or impede the diffusion of innovations.

3. System norms

Norms play an essential role in the rate of adoption of innovation (Rogers and Kincaid 1981). They are defined as the established behaviour patterns for the members of a social system and they serve as a guide for or the standard for the behaviour of members of a social system because norms inform individuals what behaviour they are expected to perform. Norms can operate at the level of a notion, a religious community, an organization or a local system, such as, a village (Rogers 1995). Therefore, an innovation that challenges the social system's norms or breaks the social structure is likely to require significantly larger effort to enable adoption (Jones et al. 2003). With regard to the cultural differences, these can be measured and inferred from data about collective behaviour, such as, a country's national health, political violence, labor conflicts, traffic accidents or suicides. All these measurements inform about a country's culture (Hofstede and Bond 1988). According to Hofstede, cultures mainly differ along five dimensions, which are Power Distance, Individualism, Uncertainty Avoidance, Masculinity and Long-Term Orientation.

I. Power Distance is the extent to which the less powerful members of organizations and institutions (like the family) accept and expect that power is distributed unequally. Power and inequality are of course very fundamental aspects of any society and all societies are unequal but some are more unequal than other ones.

II. Individualism versus its opposite collectivism, that is, the degree to which individuals are integrated into groups (Shilpan 2012).

III. Masculinity versus its opposite Femininity that is, the degree to which distinct social gender roles characterize cultures (Shilpan 2012).

IV. Uncertainty Avoidance: it is the degree to which uncertain situations make members of a culture feel threatened (Shilpan 2012). It indicates to what extent a culture programs its members to feel either uncomfortable or comfortable in unstructured situations (Hofstede and Bond 1988). Uncertainty involves accepting cultures that are more tolerant of behavior and opinions that differ from their own; they try to have as few rules as possible, and on the philosophical and religious level, they are relativist, allowing many currents to flow side by side.

V. Long- Term Orientation is the degree to which a culture believes in a stable society based on family and where virtuous behaviour is expected.

8.4.2 EC diffusion in Jordan and the UK

This sub-section uses DOI theory to explain the theories that have emerged from Jordan and the UK with respect to EC implementation because of this research. Diffusion of Innovation theory concentrates on how the potential adopters of the innovation in both Jordan and the UK perceive the EC's characteristics. EC diffusion will be discussed from the perspective of three stakeholders, namely, consumers, businesses and government.

➤ Relative advantages

The first component of the diffusion process is related to which degree consumers in both Jordan and the UK perceive the relative advantages of EC diffusion. Based on the research findings, Jordanian consumers do not shop online. This is due to their purchasing habits as a collectivist society. This will be discussed below. They want to see and touch the product and communicate with the actual seller. Thus, few Jordanian websites provide products via the internet. This forces consumers to buy directly from physical shops. On the other hand, most UK consumers see no problem shopping online even if they prefer to touch and see the product. This is because an 'encouragement environment' has been developed to buy online. Such an environment is due to several

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reasons, such as, internet penetration, government support and business readiness. Based on the findings of this research, low internet penetration in Jordan (approximately 37% of all households) compared to the UK (approximately 73% of all households) forces most Jordanian consumers to choose between travelling to a public internet cafe or buy directly from a physical shop. This makes online shopping inconvenient for the majority of Jordanian consumers.

The greater the perceived relative advantage of an innovation, the more rapid its rate of adoption is likely to be. For example, the convenience of shopping at home is often cited as a major benefit of EC. Other advantages found in the literature and by the current research's findings, included unlimited selection, lower prices and speed (Mokhtarian 2004).

The difference between Jordan and the UK in perceiving the relative advantages of EC is due to divergent reasons. With regard to internet penetration and the infrastructure, governments and businesses in both countries realise the importance of e-activities in bridging the digital divide between citizens/consumers and try to increase IT provision to make internet accessibility more publically and conveniently available. Jordan is a developing country. Its economic and political circumstances, as discussed in 8.3.2, forced its government to change its infrastructure sector projects, which led to low internet penetration and inefficient delivery services. This has led to the delay of the e-government diffusion in Jordan since 2000 (Alomari et al. 2012).

Thus, Jordanian consumers may be concerned about their privacy and the security of their information, even when dealing with government agencies via the internet. As found in this research, this may be due to the poor progress on EG diffusion since 2000.

For example, with regard to the privacy issue, Jordan and the UK are members of the United Nations Organisation. Both have ratified the Universal Declaration of Human Rights, the UK in 1948 and Jordan in 1975. This compels signatory countries to protect the right to privacy including personal information. The UK has enacted all essential legislation, such as, Consumer Protection Acts, EC Directive 2002, the E-signature Directive 2002 and the Data Protection Act 1998. Jordan, however, has not yet enacted any national legislation to protect personal information.

With regard to EG, Alomari et al. (2012) argues that the government websites are information websites, which Jordanian people do not perceive as examples of good practice for e-transactions because they do not offer any transactional services. This is seen in a few E-services that are provided by the government, such as, the Certificate of Non-Criminal Record and Vocational Licence Issuing services.

Supported, therefore, by the theory from the Jordanian context, EG success is the starting point for EC diffusion in Jordan, particularly when undertaken with the view that the same factors that influence EG diffusion in Jordan are the same ones that influence EC diffusion in general. These factors affect the relative advantage that Jordanian businesses expect from EC diffusion in their activities. This can be seen from the small percentage of companies that have a website (4%), which reveals an unwillingness to diffuse and adopt EC technology.

The situation in the UK is very different because of the readiness of both government and businesses to support online transactions. The UK is ranked 14th out of 70 in the 2010 e-readiness ranking and this gives an initial impression about the willingness of the government to present E-government services for its citizens. In addition, UK

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businesses act effectively as agents for the EC diffusion process as they perceived the relative advantage of EC for their commercial activities.

At this point, it is worth mentioning three facts that relate to EC activity in the UK. The first one is that EC strategy in the UK started in 1999 and in common with other developed countries, ICT diffusion was initially launched in the private sector. It was after its success in the private sector that governments in developed countries adopted ICT technologies, for example, in the UK when the government adopted EG in 2004. The impact of EG implementation on EC activities is clearer in the UK. In the UK the majority of its government services are conducted online. This makes its citizens more experienced in such activities, more capable of practising EC activities and less concerned about their personal information. This can be seen in the statistics from the National Statistics Office, which state that sales through the internet in 2006 were about £130bn[63], while the total value of sales though all ICTs in 2002 was around £23bn[64]; taking into consideration that EC strategy was launched in 1999.

This is consistent with the theory of Rate of Adoption, which states that an innovation goes through a period of slow, gradual growth before experiencing a period of relatively dramatic and rapid expansion and this happened with the UK from 2002 to 2006. In addition, as Rogers mentions in the Individual Innovativeness Theory there are five categories in both Jordan and the UK for potential adopters of EC innovation. The number of members in each category changes, depending on various characteristics such as relative advantage: and it is completely wrong to consider moving the members of one category to another, for example, from laggards to the late majority. The

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[63] Source: http://www.statistics.gov.uk/downloads/theme_economy/ecommerce_report_2006.pdf.
[64] Source: http://www.statistics.gov.uk/pdfdir/ecom1203.pdf.

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innovator has to think about the features of each category and fulfil their requirements and this may change their attitude about using innovation. In order to clarify this, figures from Jordan and the UK about the number of consumers who buy through the internet show that 3% (according to study of Arab Advisors Group in 2010) of Jordanians and 50% (according to study of IMRG in 2010) of the British shop online. This means that the majority of Jordanians are still laggards while half of the British population accept shopping online. In order to explain this difference, Robinson (2009) argued that innovations spread when they evolve to meet the needs of successive segments.

A second set of figures that illustrate how businesses in the UK receive the relative advantage of EC diffusion comes from the portion of businesses, which have a website. According to the Office if National Statistics, more than 76% of businesses had a website in 2009 and 15% of them conducted retail activities through them, while 7% sold through ICTs other than a website. These figures show that the UK has become one of the leading forces in electronic commerce and the second largest online advertising market for electronic commerce after the United States (Boston Consulting Group 2010).

➢ Compatibility
The second component of the diffusion process is related to the degree to which an innovation is perceived as being consistent with Jordanian and UK consumers' work and lifestyles. Consumers in both countries are affected by the degree to which a consumer believes that the organisational and technological infrastructure exists to support the use of EC (Alryalat et al. 2012). Many Jordanian consumers and businesses still do not see EC as compatible with their experiences and needs. The main effort,

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therefore, is to make both of them, as Al-Qirim (2007, p. 119) stresses to "let them enter this world and induce them to use EC and to like it."

Consumers need to limit and control the kind and amount of personal information provided about them and to restrict access of their personal information to the right people, as discussed elsewhere in this chapter. They will be willing to provide their personal information only if they can recognise when, how and to what extent that information will be revealed to others. At the same time, consumers should enjoy limited control with respect to considerations involving choice, consent and correction when completing online transaction.

Discussions about compatibility for using EC directs this discourse towards the cultural aspects of Jordanian consumers, which are considered a major obstacle to the spread of EC (Gong 2009; Kahttab et al. 2012). The cultural differences that exist between different countries may affect the potential adopter's ability to embrace and utilise EC (Ling and Bauer 2000). Previous studies on cross-national diffusion of technology have confirmed that innovations diffuse differently in different cultures depending on their socio-cultural environments (Gatignon et al. 1989; Helsen et al. 1993; Takada and Jain 1991).

The differences between individualistic and collectivistic societies influence business in several ways (Daniels et al. 2004). Jordan is categorised as a collectivist society where Hofstede (1991) confirmed the strong relationship between the collectivist nature and its limited use of the internet. Upon this issue the current research is consistent with previous results, such as, Kahttab et al. (2012), when he revealed that Jordanian consumers prefer to deal with a real and physical market, which reduces their

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confidence in EC transactions. In addition, Loch et al. (2003) found that the highly social and family oriented nature of the Arab culture could offer a barrier to internet usage.

In individualistic societies, such as the UK, the consumer is influenced by his/her personal attitudes rather than by others' opinions or regulations (Kahttab et al. 2012). This strongly accords with the theory from the UK context in the current research, which demonstrates that consumer attitude is the main factor that influences customers to provide their personal information and buy online. As discussed above, 73% of UK households have internet access in their homes, which indicates that the majority of UK citizens are online.

Despite the ease of internet access, not all UK consumers indulge in online shopping. Frost et al. (2010) showed that individualism and collectivism can explain some differences between online and offline shoppers. These researchers assert that shopping online attracts individualists because the activity does not depend on interaction or social cooperation with others. Therefore, in the UK context, the people who tend not to engage in buying online are collectivists rather than individualists. This is because those participants in the current research who prefer not to buy online do not wish to provide their personal information and communicate with a virtual seller. They prefer to buy off-line and communicate with an actual seller.

Solomon (1999, p. 495) describes the cultural impact on an individual's purchase decision as follows:

> *"Culture, a concept crucial to the understanding of consumer behaviour, may be thought of as a society's personality. It includes both abstract ideas, such as, values and ethics, as well as the material objects and*

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services, such as automobiles, clothing, food, art and sports that are produced or valued by a society... consumption choices simply cannot be understood without considering the cultural context in which they are made. Culture is the "lens" through which people view projects. Ironically, the effects of culture on consumer behaviour are so powerful and far-reaching that this importance is sometimes difficult to grasp or appreciate. Like a fish immersed in water, we do not always appreciate this power until we encounter a different environment, in which suddenly many of the assumptions we had taken for granted about the clothes we wear, the food we eat, the way we address others and so on no longer seem to apply. The effect of encountering such differences can be so great the term "culture shock" is not an exaggeration."

In addition, religion may have a significant influence within a collectivist culture in contrast to individualistic societies. In the collectivist religions, consumers are usually expected to refer to their group leader for advice regarding social and other everyday matters (Siala 2001). For example, shopping online needs the availability of credible payment channels ,such as, credit cards and credit cards are not yet popular in Jordan, except for use in ATMs (Lawrence 2010). One of the main reasons that prevent credit cards for shopping online lies with the bankers themselves. They do not promote a credit card culture for shopping online and they even warn their clients against using them for this purpose (Halaweh 2011). Furthermore, some Jordanians, as Muslims, would not own a credit card for religious reasons due to the prohibition of the interest element in conventional banking (Mansor and Mat 2009). Alomari et al. (2012) revealed in their research that religious belief is a significant predictor of ICT adoption in Jordan and is consistent with the other research, which concluded that religion significantly determines social norms and practices (Elsheikh and Cullen 2008; Hill et al. 1998).

It is obvious that in a collectivist society, such as Jordan, individuals are affected by the advice of others who may be family, friends, colleagues or role models (opinion

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leaders) (Siala 2001). These groups of advisers exert a strong influence on an individual's beliefs, evaluations and their purchase decision process (Howard 1994). These factors have been confirmed by Kahttab et al. (2012) when they mentioned that the individualistic person behaves according to personal attitudes and preferences rather than being influenced by others' opinions or regulations.

➢ Complexity

The third component of the EC diffusion process is related to the degree to which the potential adopters in both Jordan and the UK perceive this innovation as easy to understand and use. It is evident from previous research, such as, (Alomari et al. 2012; Slyke et al. 2004), and emphasized by the current research that complexity is a predictor that influences consumers' intentions to purchase through the web. Evidence to support this has emerged from both the Jordanian and the UK contexts.

The unreliable infrastructure in Jordan translates into more difficulty when completing online transactions, which makes the web an unsafe environment for providing personal information. For example, the current research found and the literature confirms, with respect to internet penetration, that 22% of households have access to the internet and to businesses; about 4% of SMEs have a website, which influences EC diffusion in Jordan. In addition, personal computers and Internet access accounts are expensive relative to the average income. Therefore, not having a computer at home lessens the convenience of EC.

Furthermore, "once people have the infrastructure to go online they need the awareness, skills and online content to motivate their access (Dugdale et al. 2005, p. 111); which assures the impact of knowledge and awareness on the consumers' willingness to buy online and confidently provide their personal information

unconcerned about their privacy and security. Pons (2004) found that awareness of and understanding the internet and workers with information technology skills are the main factors for the diffusion of any technology. Thus, internet-literate people are more able to assess to what extent Web-based services help them to conduct their transactions efficiently compared to those who are not internet literate (Alomari et al. 2012). The current research reveals the impact of age and educational level on Jordanian and UK consumers' willingness to shop online and provide their personal information through the internet. This is because an individual's ability to use a computer and the internet grants him/her the experience required for using the new technology.

Another example found by this research is concerned with postal policy, which aims to give a significant number to each house and street in Jordan. This strategy will facilitate the delivery of purchased products through the internet and so influence EC diffusion in Jordan. This policy, however, only applies to Amman, Irbid and Al-aqaba, which makes online activities a complicated process and an incompatible purchasing option. A third example involves the method of payment. Either the consumer does not possess a credit card or the seller does not accept online payment, which will influence EC diffusion in Jordan. Furthermore, communication media do not allow for face-to-face interaction and contradicts the collectivist Jordanian culture as most consumers want to see, touch the product and negotiate the price with the seller. Therefore, consumers in Jordan who are more collectivist than their UK counterparts perceive online shopping as less easy to use.

➢ Observability and trialability

The fourth component of the EC diffusion process is related to the degree to which the outcomes of using EC are apparent for consumers in Jordan and the UK. Jordanian

consumers perceive EC as providing less result demonstrability compared to their counterparts in the UK. From statistics about internet usage in both countries the internet is used much more often in the UK compared to Jordan, which means the results of EC should be more apparent in the UK. Another indicator from Jordan and the UK, namely, the UK environment for practising EC and enabling consumers to restrict and control their personal information is much better in comparison to Jordan. This difference is due to the existing data protection act that regulates the relationship between consumers and businesses. In addition, the age of the consumer, his/her education level, computer literacy, experience and confidence in using the internet for shopping affects the ability of Jordanian and UK consumers to use this type of innovation. These skills increase a user's knowledge and awareness when, how and to what extent they have to provide information when dealing online.

Finally, trialability refers to the capability of potential adopters in both Jordan and the UK to experiment and trial shop through the internet (Othman et al. 2010). From the above it is obvious that UK consumers are more likely to gain experience in dealing online and become more confident to buy over the internet. Despite the fact that Jordan has a high rate of literacy, there is less concern about EC modules. This is in contrast to the UK, where there is increased knowledge and awareness among students in schools and universities. Furthermore, there is less concern about increasing awareness among the Jordanian citizens for E-activities through the mass media such as TV and radio.

To conclude, as revealed from this research, a collaborative responsibility between the government and Jordanian businesses is important to develop the infrastructure sector. This can happen by improving, for example, the legal environment, roads, communications, delivery services and electricity supplies. Furthermore, businesses

need equipment and software to guarantee the success of electronic commerce activities and to support consumers with the protection they need in order to provide their personal information online safely. In addition, access to the internet should be available for the majority of Jordanian households. This is a shared responsibility between government and businesses. This can be achieved, for example, by granting businesses some economic privileges such as, tax breaks if they support consumers with internet services at low subscription rates, as mentioned previously. In the UK all these issues are addressed, which justifies the reasons that makes EC activities in UK more advanced compared to Jordan. This leads to the conclusion as to why UK consumers are willing to participate in EC activities and are less concerned about their personal information in comparison to those in Jordan.

The following figure clarifies the significance of the role of government, businesses and consumers in EC diffusion and privacy protection in both Jordan and the UK. This is because, as Wang et al. (1998) believe, each party has a key role to play. They believe that government has the role to enact the privacy laws and educate the public about these issues, whereas businesses would be responsible for promoting the requirements for protecting consumers' privacy and educating them about the issues that are involved (Wang et al. 1998). Finally, they state that consumers themselves would be responsible for using privacy enhancing technologies and security tools (Wang et al. 1998).

Each part of the figure below is keyed by a colour inspired by traffic lights. The red colour signifies the essential role of government on the implementation of EC. The yellow colour signifies the impact of the government's role on the willingness of businesses to practise and fulfil the requirements of EC. Businesses become more

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encouraged to participate in EC activities if they believe the seriousness of government to adopt E-transactions on a broad level. The green colour signifies the impact of the government and business roles on the willingness of consumers to participate in EC and provide their personal information online.
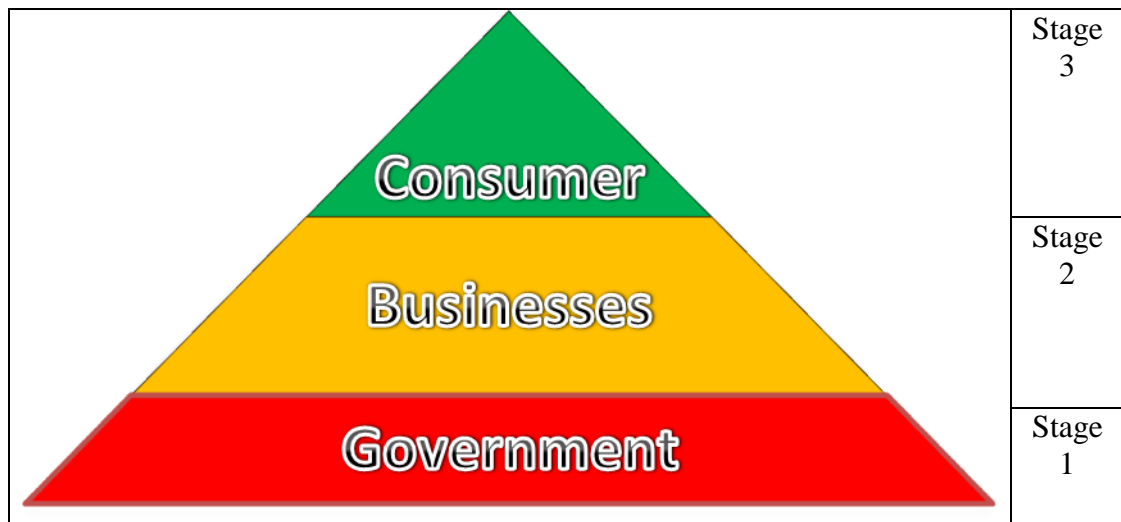
Figure 8-6: Stakeholders' Role in EC Implementation.

From this figure, it is obvious that EC implementation in any particular country needs collaboration between government, business and consumer. The government's role affects the businesses' enthusiasm to participate in EC, while the government and businesses roles affect the consumers' willingness to buy online.

8.5   Conclusion

This chapter has differentiated between the situations in Jordan and the UK concerning electronic commerce diffusion and the factors that influence consumers' willingness to provide their personal information online. This has been done through discussing the two theories that emerged from the Jordanian and UK contexts; in two separate sections, based on privacy theries and special circumstances in each country. This gives the potential to compare the Jordanian and UK contexts in regard to diffusion of EC in each country and iys impact on privacy matters. This comparison is conducted based on

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the diffusion of innovations theory. Therefore, the next chapter will conclude this research by addressing the proposed questions, an indication of the thesis's contributions and limitations, and finish by mapping the future works upon the results of this current research.

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9 Conclusions

9.1 Introduction

This chapter presents the conclusion of this research. This will be followed by addressing the questions that were proposed in this research and how these have been answered. It also discusses the recommendations, an evaluation of this research and the contribution to the knowledge made, as well as the limitations of the results. Finally, proposals for future work arising from this study will be presented to conclude this chapter.

9.2 Answers to the Research questions

The main aim of the current research was to investigate the impact of privacy regulations on the development of electronic commerce. The plan for answering this question was to examine whether and why privacy constitutes an obstacle to EC development in Jordan and the UK. Furthermore, this was achieved by exploring other EC difficulties and their influence on privacy concerns. This was realized through discussing national and international regulations concerning privacy, emphasising the regulations of Jordan and the UK, to explore how these regulations ameliorate privacy concerns. These questions have been addressed throughout the current thesis.

> **Does privacy constitute an obstacle to EC development in Jordan and the UK?**

This research observed that privacy is an international hurdle that makes consumers reluctant to purchase online. This was addressed in the second chapter, particularly in table 2-3, sub-section 2.5.2, where it was shown that privacy is one of the main factors influencing EC implementation. This was re-emphasised in chapter 4 when the previous studies in Jordan and the UK, sub-sections 4.2.1 and 4.2.2, confirmed what has been found by the current research, particularly in chapter 7 and sections 8.2 and 8.3, when it

was revealed that privacy is one of the central inhibitors for EC development in both countries. Therefore, consumer privacy requires intervention by national and international legislators to provide the desired legal protection and balances the conflicting interests between businesses and consumers, which accounts for why privacy presents a hurdle for EC development in Jordan and the UK, as discussed in sections 2.6 and 3.4.

> **If privacy inhibits EC development, what do previous studies in both Jordan and the UK describe as additional obstacles? And how do they influence EC implementation and privacy concerns?**

The first sub-question confirmed that privacy constitutes one hurdle for EC implementation in Jordan and the UK. The second sub-question aims to explore the other obstacles that influence EC implementation and how they interrelate with privacy issues. By reviewing the literature, particularly sub-sections 2.5.2, 4.2.1 and 4.2.2, the inhibitors that obstruct EC implementation in Jordan and the UK were identified. Table 9-1 below summarises the other hurdles.

Factor	Jordan	UK
Consumers attitudes	X	X
Awareness on the part of consumers	X	✔
Privacy concerns	X	X
Trust	X	X
Confidence	X	X
Experience	X	X
Language	X	✔
Computer and internet literacy	X	X
Age of consumer	X	X
Educational level	X	X
Awareness within companies about electronic commerce	X	✔
Readiness of businesses to practise e-commerce	X	✔
Infrastructure	X	✔
Internet penetration	X	✔
Tax and customs issues	X	✔
Logistical factors	X	✔
E-government adoption	X	✔
Regulations	X	✔

Table 9-1: Electronic Commerce Implementation Hurdles.

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From the empirical study, the interrelationships between privacy and other factors that influence EC implementation was researched and confirmed in both Jordan and the UK. From the Jordanian context the interrelationship between privacy and other factors is depicted in the following figure.
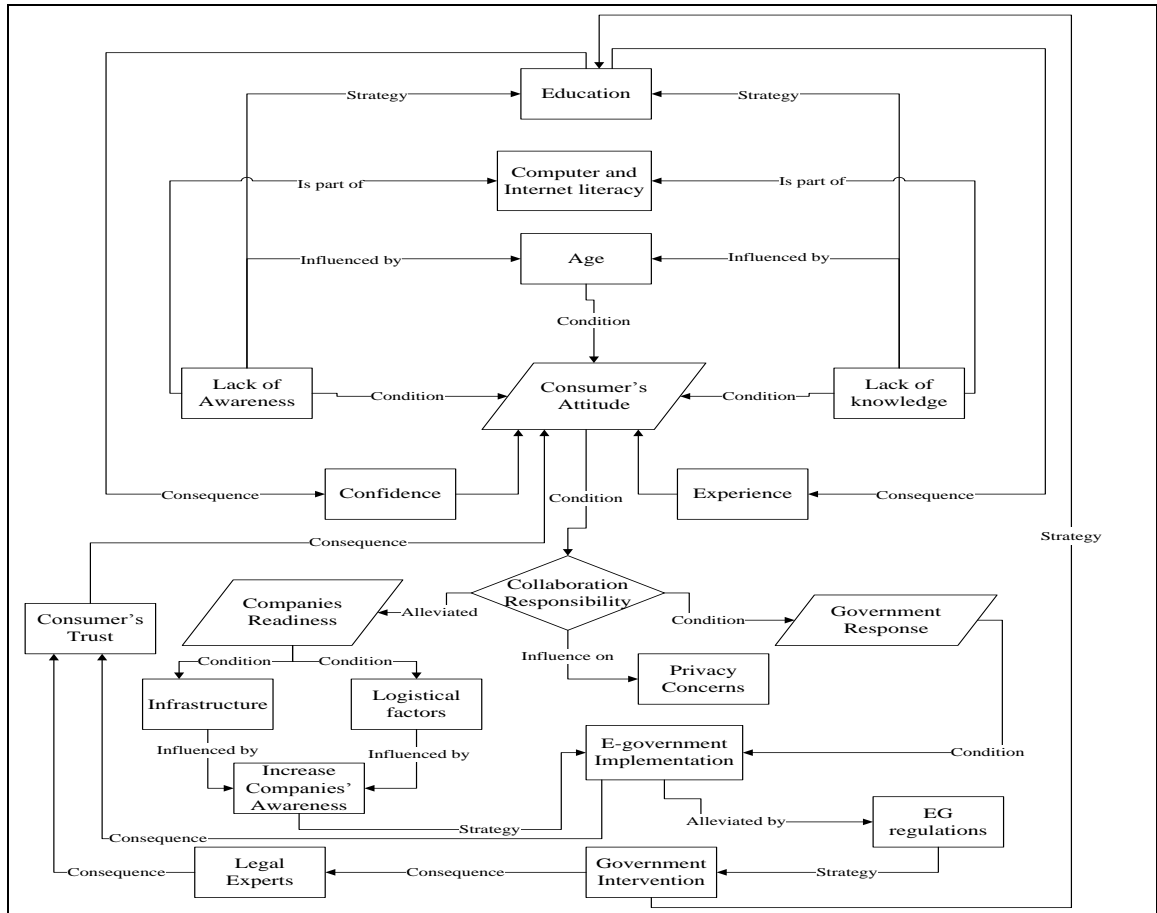
The interrelationships from the UK context are illustrated in the following figure:
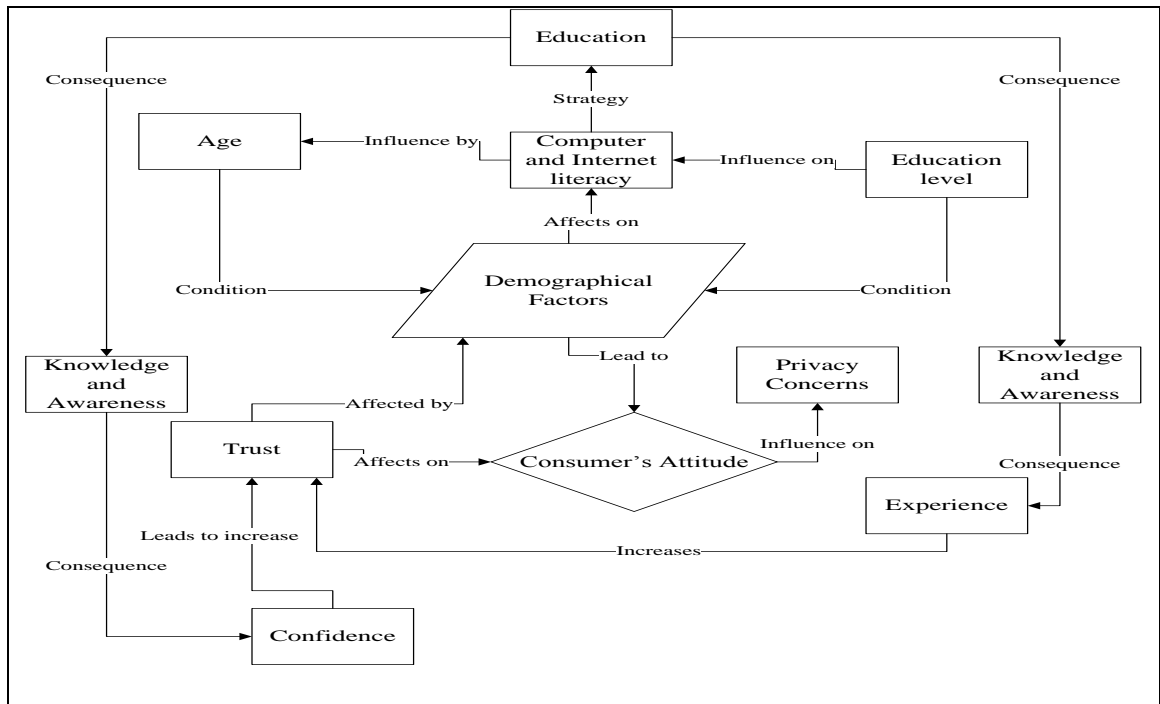
As shown in the above table, the hurdles that influence EC development are not the same in Jordan and the UK. Furthermore, particularly in Jordan, this research found some factors that are not known to exist or have never been discussed in the literature. The discussion in 8.2.4.2.1 and 8.2.4.2.2; reveals that the unstable political situations in the Arab region reflect negatively on the Jordanian government's projects and have delay the implementation of projects related to EC and EG programmes. In this regard, the Syrian crisis, the Egyptian crisis, the Libyan crisis, and the Iraqi crisis and finally the Palestinian crisis have increased the number of refugees in Jordan, which forced the government to deal with this extraordinary situation and led to a deficit in the government's budget. In addition, another new factor, which is not mentioned in previous studies about Jordan is related to its delivery services and post-coding policy. The lack of such a policy makes shopping online inconvenient due to the long time between paying and receiving the purchased product.

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> **How do regulations in both Jordan and the UK influence EC implementation and privacy protection?**

This was illustrated in chapter four, particularly in sub-sections 4.3.1 and 4.3.2, emphasised in chapter 7 and discussed in sub-sections 8.2.3 and 8.3.2, which covered the Jordanian and UK efforts to protect the right to information privacy and the regulation of all other related matters concerned with EC. In these chapters, the third sub-question was addressed by concluding that the Jordanian regulations are not adequate to regulate EC privacy issues in comparison to the UK where all matters that relate to EC and privacy concerns are regulated.

> **How is the current literature reflected by the perception of EC   stakeholders, such as, consumers, businesses and governmental agencies in Jordan and the UK?**

This was addressed by conducting empirical work, which was implemented in chapter 7 and is described by the grounded theories from Jordan and the UK. The empirical work has confirmed that governments, businesses and consumers are the main stakeholders in overcoming EC inhibitors in general and privacy concerns as depicted in figure 8-6. Thus, the emerged theories from the viewpoints of EC stakeholders have declared that privacy is a central inhibitor for EC implementation but it is not the only one, because many other factors have an essential impact on EC implementation as well. The significant thing is that disquiet about privacy is affected by all other inhibitors and all these either increase or decrease the level of concern toward providing personal information online; as depicted in figures 8-1 and figure 8-3.

Finally, by addressing the four sub-questions, answering the main research question about the impact of privacy regulations in Jordan and the UK on EC development becomes possible. It is found through comparing the two countries, as discussed in sub-sections 8.2.4.1, 8.3.2 and 8.4, that regulations are very important in EC development,

particularly in Jordan where the EG programme is still not successful, by providing consumers with the legal protection they seek while they deal online. However, enacting these regulations does not mean that EC will be developed because lack of regulation is one of numerous inhibitors that influence privacy concerns. So, this research confirmed that EC implementation will be developed if privacy hurdles are solved including the problem of privacy regulations.

Finally, this section confirms that all proposed research questions in section1.2 have been answered through the work presented in this research. The next section will offer contributions to knowledge that this research has made.

9.3 Research contribution

This thesis has made both a theoretical and a practical contribution to knowledge.

1. The main contribution to the knowledge and empirical findings of the corpus of research is that EC development is influenced by privacy as the central inhibitor but at the same time all other factors have an essential impact on EC development and on increasing or decreasing the level of apprehension among consumers. This is depicted in figure 8-1, which indicates that all these inhibitors influence privacy concerns. This result is confirmed in figure 8-3, which demonstrates that solving these inhibitors means privacy concerns among consumers will be moderated.

2. To follow, the current research adds a contribution to a growing body of literature, by concluding that enacting data protection laws will enhance EC implementation. As shown in figure 8-1, however, regulation is not the sole solution for developing EC in Jordan, because the development of EC needs a

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solution to all inhibitors that influence privacy concerns and a data protection law is only one of these solutions. Thus, working on the legal environment will not be worthwhile if the other inhibitors are not considered.

3. Furthermore, another contribution depicted in figure 8-3, from the UK context, shows that fulfilling the requirements to enhance the protection of privacy does not mean that EC will develop. The aforementioned figure shows that consumers' attitudes toward EC remain the essential factor for EC development, even if all legal and technical requirements are fulfilled. This means that the consumer has the right to decide to buy through the internet or not and nobody has the right to force him to buy online if he/she is not incline to do so.

4. Furthermore, this research has contributed to the corpus of knowledge by fulfilling the suggested guidelines proposed by Urquhart et al. (2010), which ended by theoretical integration. In this research, two types of theories were used to give more abstraction and understanding for the emergent theories from Jordan and the UK. Firstly, privacy theories were used to give fuller explanations for these theories with regard to privacy issues. Furthermore, where privacy was not the sole factor that influenced EC implementation, the Diffusion of Innovations Theory was used to give a deeper explanation for EC diffusion in both Jordan and the UK.

5. This research is the first one of its kind to discuss electronic commerce matters in Jordan from a non-technical perspective. Other research has discussed electronic commerce from a technical perspective. Furthermore, this research

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was the first in Jordan to discuss in detail the impact of electronic commerce inhibitors on the privacy concerns of Jordanian and UK consumers.

6. On a practical level, as discussed in section 1.1 and at least as far as the researcher knows, this is the first research to discuss the privacy issue from the perspectives of three stakeholders: consumers, businesses and government. The only authors who have discussed privacy from the three stakeholders' points of view are those who stress the need to enact regulations that regulate the relationship between consumers, companies and government but none has researched the impact of these regulations on EC development. The previous literature has discussed this issue but only from one or two stakeholders' viewpoints. Furthermore, the previous authors who researched privacy from a legal perspective have discussed it from a company's viewpoint rather than that of the consumer.

7. This research is the first, at least to the researcher's knowledge, in Jordan and the UK to affect a comparison between their regulations with regard to privacy matters and the impact of the existence or absence of such regulations on the development of electronic commerce in both countries. Apart from this, it is the first of its nature with regard to investigating all EC inhibitors and their influence on privacy concerns.

8. This research is also the first, at least as far as the researcher knows, to use grounded theory as a research method and methodology for making comparisons between Jordan and the UK with regard to the field of electronic commerce. This has been achieved by comparing the impact of the absence of privacy

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regulations on the development of electronic commerce in Jordan with the impact of the existing privacy regulations in the UK and their influence on the development of this country's electronic commerce.

9.4   Recommendations

This section is supposed to suggest some recommendations that help the policy makers in Jordan to develop EC activities. However, based on the two grounded theories that emerged from Jordan and the UK, the researcher finds himself with the ability to provide recommendations that are applicable in both Jordan and the UK to develop EC and overcome privacy worries. So:

1. Regarding the Jordanian situation, the government is strongly recommended to implement E-government services in Jordan. As seen from this research, particularly in figure 8-1, EG has a significant role in overcoming the citizens' concerns about their privacy due to their own experience and the confidence they get from using the EG portal. The EG initiative in Jordan started in 2000 but it is still failing to accomplish its objectives. The previous studies confirm that factors influencing EG implementation are the same that influence EC implementation. This is because there are no adequate regulations to regulate information privacy and E-activities in Jordan. Thus, there is no appropriate infrastructure sector and there are insufficient logistical services. So, if EG services succeed this means that most factors that influence privacy concerns will be solved.

2. The author recommends that Jordan adopt the 1980 (OECD) Guidelines on the Protection of Privacy and Trans-border Flows of Personal Data for three reasons: firstly, the OECD Privacy Principles present the most universally used

privacy framework; secondly, the guidelines are strongly tied to European Union member countries' data protection legislation (Directive 95/46/EC); finally the Jordan-US Free Trade Agreement states that OECD guidelines would represent the best framework to apply to the Jordanian situation.

3. The government is strongly recommended to encourage and convince SMEs about the economic benefits they can get from practising EC and fulfilling its requirements. This is because even though an EG programme is adopted in Jordan it does not mean that businesses will be engaged to use EC if they still maintain their current perceptions about it. According to the National Statistics Department study in 2010[65], about 40 percent of Jordanian SMEs do not believe in the importance of EC on the size of sales or buying transactions. Therefore, as depicted in figure 8-1, the government has to increase the awareness of businesses about EC.

4. If businesses are convinced about the importance of EC, then they are recommended to implement all technical and non technical requirements to practise EC. For example, they are responsible for promoting self regulations for fair information practices and communicating with consumers to encourage them to use EC for buying their goods.

5. Consumers are recommended to be aware about EC and how they could buy through the internet in a safe and secure way. However, in this regard, the current research assures that government and businesses are responsible for making consumers understand EC through programmes in schools, universities

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[65] http://www.dos.gov.jo/dos_home_a/main/index.htm.

and seminars...etc. This affects confidence among consumers to provide personal information online.

6. Regarding the situation in the UK, government and businesses accept their responsibilities and fulfill the essential requirements for practising E-transactions and making personal information safe from invasion and misuse; this moved the ball to the consumers' court and made them free to make theri decisions about buying online.

9.5   Research evaluation

This section will evaluate the use of grounded theory in this research. As mentioned in section 6.2, the emergent grounded theory should be fit, relevant or understandable, workable, and modifiable. In this regard, Chiovitti and Piran (2003) set out some practical applications that could be used to evaluate the rigour of a grounded theory. They assert that credibility, audit-ability, and fittingness are the main standards for measuring rigour. Based upon their standards, the researcher has used these criteria and applied them to the current research to evaluate the rigorousness of this research.

1. **Credibility** and **Trustworthiness:** credibility is related to the trustworthiness of findings (Rinaldi 1995). To evaluate the credibility of findings four criteria should be taken into consideration (Chiovitti and Piran 2003). The researcher allowed the participants to guide the inquiry process. This supported the researcher in providing a check on the relevance of the interview guide and in suggesting amendments to the kinds of questions that should be asked during or in the next interviews. As well as this, the researcher used the actual words that were employed by respondents in the analytical process. This can be seen from the coding process that was discussed in chapter seven and implemented in

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chapter eight, where the researcher tried wherever possible to use 'in vivo' codes for the coding process. Furthermore, the theoretical construction generated should be evaluated against the meanings given by respondents. For example, the relationship between the age of the consumer and their educational level is generated theoretically from respondents' replies and categorised under the same category. To simplify this process, the researcher used a 'memo' on a blank sheet of paper, to write down the main ideas or concepts that were offered by respondents.

2. **Auditability:** to check the auditability of findings, the researcher should justify why particular respondents have been chosen for his research, and the researcher's reflection in this regard should be based on a set of criteria (Chiovitti and Piran 2003). In this research, theoretical sampling was the criterion for determining the kinds of people participating in this research. Thus any person meeting the study's eligibility criteria has been interviewed. The criteria that the researcher's thinking is based on are questions such as: What is happening in the data? What does it represent? (Strauss and Corbin 1990). Furthermore, the paradigm model has been used in axial coding and selective coding to make links between the categories and sub-categories, as discussed in 7.2.4 and 7.3.2, and to make links between the core category and other categories, as discussed in 7.2.5 and 7.3.3, to ensure that this core category is able to encompass those categories.

3. **Fittingness:** to accomplish this criterion, the grounded theorist should determine the scope of research in determining the size of the sample, and the level of the

generated theory (Chiovitti and Piran 2003). With regard to the size of the sample, in table 5-1 the researcher has determined the number of people who were interviewed in Jordan and the UK. Furthermore, he has justified the reasons that led him to involve those people. The second issue is related to the type of generated theory as a main criterion to determine if this research is fit or not. This research will develop a substantive theory because the researcher aims to generate theory from a substantive area of inquiry; that is, privacy regulations and their impact on the development of electronic commerce. This has been mentioned in sub-section 6.2.1. The second criterion to justify the fittingness of this research which will be achieved through linking the emergent codes with the literature review. This helps to achieve the transferability criterion through demonstrating the likelihood that the research findings have meaning to others in a similar situation (Chiovitti and Piran 2003). This has been achieved in sections 8.2 and 8.3 which establish the potential of transferability of the generated phenomena in this research, due to the similarities with the previous work of others in the field of electronic commerce and the privacy issue specifically.

9.6   Limitations of the research

Although this research has achieved its aim, some unavoidable limitations have emerged:

1. This research was conducted through a grounded theory approach in both the Jordanian and UK contexts. Respondents in this research were chosen through the theoretical sampling method. The size of the chosen sample is quite small in comparison with sample sizes in quantitative research, where the size of the sample is large and allows the possibility of generalising the results. This can be

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attributed to the nature of GT methodology that its main objective is not to present results that can be generalised. Therefore, it is useful to study other countries that share the same circumstances with the use of different research methods to emphasise the consistency of its findings.

2. Furthermore, the researcher struggled to get access to companies and government representatives, particularly in the UK, which affected the size of the sample and raises the question of compatibility of populations in the Jordanian and UK samples. This limitation might be moderated by implementing the theoretical sampling method, of which there is more discussion in 6.2.2, which defeats this limitation and justifies the reasons that led to not meeting individuals from businesses and government sectors.

3. Finally, this research is limited by its failure to mention the political and economical factors that affect planned governmental projects, including EG and EC, in Jordan. However, some political factors such as the unstable political situation in the Arab countries have recently occurred, particularly after the data had been collected and analysed. These factors need further research to investigate their impact on EC implementation in Jordan.

9.7   Avenues for future research

Arising from the results of this research and the limitations addressed in the previous section, it has become clear that some areas require further investigation:

1. This research has produced a comparison between a developing and a developed country, namely, Jordan and the UK. Further research could be conducted to effect a comparison between two Arab countries, of which one should be the

United Arab Emirates (UAE), to compare the impact of electronic commerce regulations on the development of electronic commerce. The United Arab Emirates is proposed as one of the two countries in the comparison because it is an Arab country that has endorsed regulations that govern all matters related to privacy issues. This is the Data Protection Act and was sanctioned in 2007.

2. A quantitative research study could be implemented to investigate the impact of privacy issues on Jordanian consumers' willingness to purchase online. Implementing such research would provide the opportunity to present the resulting statistics to policy makers showing the importance of this issue and its importance to consumers' decisions to purchase online. This can be attributed to the nature of the quantitative approach which aims to generalise its findings, in comparison with the qualitative approach.

3. Furthermore, another quantitative research study could be carried out in Jordan to find out how Jordanian businesses perceive their consumers' concerns regarding their privacy. Another quantitative research study could be conducted to explore the reasons that prevent Jordanian businesses from adopting electronic commerce technology in their activities.

4. Further qualitative research could be conducted to investigate, in greater detail, the reasons that impede the realisation of the National Strategy for Electronic Commerce concerning electronic commerce implementation in Jordan. This could offer further explanations and uncover some in-depth interpretations of reasons for the failure of this strategy implementation to affect the desired outcomes.

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5. Finally, further research is needed to support the findings of this investigation; particularly in providing appropriate guidelines to enforce data protection law in Jordan.

9.8 Conclusion

Prior studies have addressed privacy as one of the main factors influencing electronic commerce implementation at the global level. Additionally, prior studies addressed the necessity of protecting consumers' privacy from the business perspective, in order to encourage consumers to purchase from their websites. Furthermore, to support businesses provision of such protection, appropriate legal regulations should be enacted at the national and international levels.

This study has investigated the impact of privacy regulations on the development of electronic commerce in Jordan. To fulfil the requirements of this study, the current situation in Jordan with regard to electronic commerce is compared with the existing situation in one of the leading nations in this sector, the UK, which as a country has enacted the whole draft of regulations required in relation to electronic commerce and privacy issues.

This research was conducted as an interpretative grounded theory research study. This approach was chosen as it allows the possibility of gaining an in-depth understanding of privacy concerns and the importance of regulations on these concerns, through exploring how the participants perceive their world and why they act the way they do. To analyse the data collected from Jordan and the UK, the grounded theory approach, in particular the Straussian approach, has been applied. Its prescribed systematic procedures have been followed to categorise the emergent concepts up to the point of

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summarising them within a core category that expresses the situation with regard to privacy issues and their impact on the development of EC in Jordan and the UK.

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Appendices

Appendix A: International Efforts to Regulate E-commerce and Privacy Issue

<u>**Introduction**</u>:

The current research aims to investigate the impact of privacy regulations on the development of electronic commerce- determined in section 1.2 National and international actions, emphasising the initiatives in Jordan and the UK, Section one of this chapter will discuss international efforts towards regulating electronic commerce matters. Subsequently, in the second section, international efforts towards regulating privacy issues will be presented.

However, the need for protecting privacy become logical when the theories that defined privacy, see section 3.3, are discussed. These theories justify the reasons that lead national and international legal systems to establish regulations for protecting privacy. In addition, regardless of the differences between them, Limited Control, Limited Controlled/Restricted access, and Undocumented theories suppose that individuals' privacy is invaded when the others try to know their personal information without their consent. This invasion of their privacy requires intervention from national and international legislations to prevent such assault on the individuals' right upon their personal information. This intervention will be discussed in the following pages.

<u>**E-Commerce in international regulations**</u>:

The dramatic growth of electronic commerce - more details in section 2.1 - on the global level has raised the need to develop governing laws that regulate this recent phenomenon of activities (Fisher and Chu 2009). Therefore, this section will discuss the international and national picture on electronic commerce regulation.

International efforts to regulate E-commerce:

The advent of the electronic commerce era challenges countries to accommodate new commercial practices, particularly from the legal perspective (Overby 1999; Ritter and Gliniecki 1993; Swire 2003). This is because countries have different social cultures and legal systems - more drawbacks are discussed in sub-section 2.5.2- and these differences in legal traditions, cultures and economic development make the harmonisation in law a complex task (Overby 1999; Thurlow 2001). According to Overby (1999), the rules of the contractual writing and signature requirements exist and are developed in most legal jurisdictions before the existence of electronic commerce. But, to overcome on the harmonisation task, the essential procedures and principals for related matters to electronic commerce were provided (Boss 2009), through "provide a tool for states to enhance their legislation as regards paperless communication and storage of information" (Glatt 1998, p.57).

On the global level, the first effort goes back to 1985, when the United Nations Commission on International Trade Law (UNCITRAL) adopted a recommendation on the legal value of computer records. It recommends governments and international organisations to review the legal rules that affect the use of computer records as evidence in litigation, and reviews the legal requirements around the handwritten signature.[66]

The United Nations Commission on International Trade (UNCITRAL) is a core legal body for international trade law in the United Nations. The role of this commission is to

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[66] Available at:
http://www.uncitral.org/uncitral/en/uncitral_texts/electronic_commerce/1985Recommendation.html.

modernise and harmonise international trade rules.[67] On the EC side, three products were produced by UNCITRAL, two model laws and one convention (Boss 2009). In 1996, UNCITRAL adopted the Model Law on Electronic Commerce (MLEC) which was amended in 1998. This aims to remove the legal obstacles to practising electronic commerce by providing national legislators with internationally acceptable rules.[68] The main important rule in this model law is the giving of the legal recognition for contracts applied electronically[69]. This model law gives the legal power for information generated, sent, received or stored by electronic, optical or similar means.[70] Besides, the Model Law gives the contract conducted electronically the same legal status of the traditional contracts if the information contained in therein is accessible so as to be usable for subsequent reference.[71] In addition, any legal requirements for signature and original documents may be satisfied by data messages.[72] However, this model law gives countries the ability to adopt its rules as a single statute or adopt the model law's provisions into specific parts of its national laws (Boss 2009).

The MLEC was followed by the issue of the 1998 "Guide to Enactment" of the UNCITRAL Model Law on Electronic Commerce. When preparation for MLEC was taking place, it was agreed to leave some essential issues to be settled in the guide that was to be issued subsequent to the model law itself. This guide aims to interpret the rules included in the model law.[73]

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[67] More information available at: http://www.uncitral.org/uncitral/en/about_us.html.
[68] Available from:
http://www.uncitral.org/uncitral/en/uncitral_texts/electronic_commerce/1996Model.html.
[69] See UNCITRAL MLEC art. 11.
[70] See UNCITRAL MLEC art. 5.
[71] See UNCITRAL MLEC art.6.
[72] See UNCITRAL MLEC art. 7&8.
[73] More information: http://www.uncitral.org/pdf/english/texts/electcom/05-89450_Ebook.pdf.

Boss (2009) argues that the success of the Model Law on Electronic Commerce has appeared from its enactment by countries around the world, such as Australia, France, Canada, Venezuela, China, Jordan and the UK, which means that MLEC has a significant impact on the national legislations in regards to electronic commerce. Besides, this success is based on the fact that it was a unique tool in legal scene where there was no existing body of law which comprehensively addressed the issues raised by electronic commerce (Faria 2008).

The third initiative was in 2001, when the UNCITRAL Model Law on Electronic Signature (MLES) with "Guide to Enactment"[74] was issued. The MLES provides a practical solution to what was mentioned in article 7 of MLEC about the reliability conditions of e-signature.[75] This helps national legislators to modernise and harmonise the legal rules of electronic signature, by giving the e-signature the same legal status in evidence that was given to the handwritten signature.

However, it should be mentioned here that MLES was not the first regulation; on the global level to regulate electronic signature matters. This is because the 1995 Utah Digital Signature Act was the first statute to equate electronic with the written form if it is tied with a digital signature supplied by a Licensed Certificate Authority (Thurlow 2001).

The final effort of UNCITRAL in this regard was the United Nations Convention on the Use of Electronic Communications in International Contracts.[76] It was issued in 2005 and aims to enhance the use of electronic communications in international trade. It aims

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[74] Available from:
http://www.uncitral.org/uncitral/en/uncitral_texts/electronic_commerce/2001Model_signatures.html.
[75] See UNCITRAL MLES art(s). 6, 8, 9, 10, and 11.
[76] Available at: http://www.uncitral.org/pdf/english/texts/electcom/06-57452_Ebook.pdf.

to provide countries the means of increasing legal certainty or commercial predictability in electronic business transactions (Boss 2009).

This convention was adopted for several reasons. It is adopted to facilitate the conducting of transactions under international conventions; such as the New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards, where the national laws might be problematic (Faria 2008). Therefore, the electronic communications convention overcomes these obstacles. Besides; Boss (2009) adds that this convention could be used as a template for harmonising electronic commerce projects on the regional level, and finally this convention was enacted because there were some provisions added in the convention were not absent in the model law, such as Articles 11, 12 and 14 of the convention (Boss 2009).

From the above it is obvious that UNCITRAL plays a significant role in enacting the essential legislations that support the countries, individually or regionally, with the ability to harmonise provisions that regulate electronic commerce. For example, in regional terms, the European Union has played a significant role in regulating electronic commerce matters within its territory (Kelleher 1998), and for that reason the next section is devoted to its initiatives.

European effort to regulate E-commerce:

The importance of legislation goes back to the vision of the European commission that Europe will benefit from electronic commerce if it has up-dated legislation that meets the requirements of businesses and consumers (Kelleher 1998). However, Kelleher (1998) argues that the European Commission was convinced that electronic commerce cannot be regulated unilaterally but there is a need to work globally get unified legislation in regard to electronic commerce. For this reason, President Clinton and the

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Leader of the EU agreed that "electronic commerce requires a coherent, co-ordinated approach internationally" (EU and US Summit 1997).

As a result, the European Parliament[77] works together with the Council of Europe to debate and pass European laws. To regulate electronic commerce, numerous legislations have been enacted. The first important directive in regards to electronic commerce is the 2000/31/EC Directive on Electronic Commerce. This directive facilitates electronic commerce by ensuring the free movement of information society services between the member states, Article 1. To achieve that, Article 9 of the Directive obliges the member states to ensure that their legal systems allow contracts, except certain contracts determined in article 9 of the directive, to be concluded by electronic means.

The second European directive is the 1999/93/EC Directive on a Community framework for electronic signatures. This Directive facilitates electronic commerce activities, according to Article 1 of the directive, by facilitating the use of electronic signatures and giving them legal recognition. However, the main aim for this directive, according to Article 9, is to grant the same legal affect for signatures provided in electronic form as that granted to signatures provided in hand-written form. Additionally, this directive recognises this sort of signature as evidence in legal proceedings.

The third European directive is the 97/7/EC Distance Selling Directive. This directive regulates distance contracts concluded between the consumer and the supplier of goods or services. It regulates the relationship between the consumer and the supplier. This directive gives the consumer the right to be provided with the required information

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[77] Available at: http://europa.eu/about-eu/institutions-bodies/european-parliament/index_en.htm.

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(Articles 4 and 5) in the time prior to the conclusion of contract, the right to withdraw from the transaction (Article 6) without penalty and without giving any reason. It obliges the supplier to perform his obligation to the consumer within a maximum of 30 days from the day following the conclusion of contract. Finally, one important provision that encourages consumers to practise electronic commerce is that mentioned in article 8, where the consumer has the right to cancel payment if fraudulent use has been made of his payment card.

Above are the main European directives in regards to electronic commerce. Besides these, there are some secondary directives that regulate some matters related to electronic commerce, such as the 2006/112/EC Directive and its amendments, on the common system of value added tax. According this directive, businesses not based in the EU have to register in one of the European countries, which means that businesses will charge consumers based in the EU the VAT rate applicable in the supplier's country of origin. If the business is not based in the EU, then the consumers living in EU will be charged the applicable VAT rate of the country they live in. In addition, the other legislation consists of the 1980 Rome Convention on the Law Applicable to Contractual Obligations, Council Regulation 44/2001 on Jurisdiction and the Recognition and Enforcement of Judgments in Civil and Commercial, 93/13/EEC Directive on Unfair Terms in Consumer Contracts, 1999/44/EC Directive on the sale of goods and associated guarantees, and the e-money 1999/44/EC Directive

All European directives request that all European countries adopt these directives within their national regulations to facilitate electronic commerce between them. The next

section presents the UK's approach, as one of the European countries that regulates electronic commerce matters in its national regulations.

Privacy in international regulations:

Privacy becomes one of the main reasons that influence business and consumers to carry out electronic transactions (Rahman and Raisinghani 2000). In addition, the need for legal regulating of the right of privacy is based on the fact that; businesses store large amounts of private data which might be misused or stolen and harm individuals (Wittzack 2010). Therefore, in this section, all efforts concerning to the right to privacy will be discussed. On the international level, several conventions have been enacted to protect this right (Section 1). In addition, European Union efforts to protect the right of individuals to privacy will be discussed in the second section.

International efforts to regulate privacy:

First of all, on the national level, the first milestone in protecting personal information against misuse was the German Federal Constitutional Court decision which was issued on the 15th December of 1983. This decision based on Article 2 of the German Basic Law[78], ruled that "the free development of personality is under modern conditions of data processing requires the protection of the individual against unlimited collection, storage, use and disclosure of personal information data.[79]"

As mentioned in the UN model laws on electronic commerce and electronic signature, historically, there has been no formally stated right to privacy. This does not mean that there was no precedent for it, because the Universal Declaration of Human Rights 1948

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[78] Article 2 states that "1- Every person shall have the right to free development of his personality insofar as he does not violate the rights of others or offend against the constitutional order or the moral law. (2) Every person shall have the right to life and physical integrity. Freedom of the person shall be inviolable. These rights may be interfered with only pursuant to a law."

[79] BVerfGE 65,1,Judgment of the First Senate of 15 December 1983, Case No Az.1BvR 209, 269, 362, 420, 440, 484/83.

declares in Article 12 that no one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, or to attacks upon his honour and reputation. It emphasises that everyone has the right to the protection of the law against such interference or attacks.

Moreover, the right of individuals to privacy has been mentioned in the 1997 United Nations International Covenant on Civil and Political Rights (ICCPR)[80]. Another example can be seen in the UN Convention on the Protection of the Rights of all Migrant Workers, which was adopted by the General Assembly in 1990[81], and in the 1990 UN Convention on Protection of the Child[82].

At a regional level, on the one side, the 1978 American Convention on Human Rights has stressed on the right of individuals to privacy[83]. On the other side, the African Charter on Human and People's Rights, which came into force in 1986, does not make express mention of the right to privacy (Okere 1984). Finally, there is no regional human rights convention in Asia, but Asia Pacific Economic Cooperation (APEC) initiated the Privacy Framework in 2004, which adopted nine principles that should be

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[80] Article 17 states that "1- No one shall be subjected to arbitrary or unlawful interference with his privacy, family, home or correspondence, nor to unlawful attacks on his honour and reputation. 2- Everyone has the right to the protection of the law against such interference or attacks. "

[81] Article 14 states that "No migrant worker or member of his or her family shall be subjected to arbitrary or unlawful interference with his or her privacy, family, home, correspondence or other communications, or to unlawful attacks on his or her honour and reputation. Each migrant worker and member of his or her family shall have the right to the protection of the law against such interference or attacks."

[82] Article 16 states that "1- No child shall be subjected to arbitrary or unlawful interference with his or her privacy, family, home or correspondence, nor to unlawful attacks on his or her honour and reputation. 2- The child has the right to the protection of the law against such interference or attacks. "

[83] Article 11 states that "1- Everyone has the right to have his honor respected and his dignity recognized. 2- No one may be the object of arbitrary or abusive interference with his private life, his family, his home, or his correspondence, or of unlawful attacks on his honor or reputation. 3- Everyone has the right to the protection of the law against such interference or attacks. "

undertaken with regard to processing personal information[84]. Conversely, on the national side, over 70 countries have enacted comprehensive data protection laws and this can be seen from the world map prepared by Davis Banisar, as presented in figure 4-1. This map shows the countries where privacy regulations have been enacted or pending.

Another international effort may be seen in the Organisation for Economic Co-operation and Development *(OECD)*[85]. This convention binds the member countries to make their regulations in accordance with the rules and regulations of the OECD. The OECD is an international economic organisation which was established in 1961 in Paris. The Convention on the Organisation for Economic Co-operation and Development 1960 was drawn up to reform the Organization for European Economic Co-operation (OEEC) which was formed in 1948 to reconstruct Europe after World War II. One of the main aims of the Organisation for Economic Co-operation and Development is to achieve the highest sustainable economic growth and employment and a rising standard of living in member countries, while maintaining financial stability, and thus to contribute to the development of the world economy.

Relating to its efforts in the field of e-commerce and privacy issues, Guidelines Governing the Protection of Privacy and Trans-Border Flows of Personal Data were issued in 1980 by OECD member countries. These guidelines, as Article 2 stated, apply

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[84] Available at:
http://www.ag.gov.au/www/agd/rwpattach.nsf/VAP/(03995EABC73F94816C2AF4AA2645824B)~APEC+Privacy+Framework.pdf/$file/APEC+Privacy+Framework.pdf

[85] There are 35 members' countries in OECD. These countries are: Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States.

to "personal data, whether in the public or private sectors, which, because of the manner in which they are processed, or because of their nature or the context in which they are used, pose a danger to privacy and individual liberties." The importance of the OECD Guidelines centred in the fact it was the first global work to enact a set of rules to deal with the processing of personal information, which makes it imperative to shed light on its rules. The guidelines mention the fair information practices which should be taken into consideration when dealing with personal details. These principles are:

1. *Personal data shall be processed fairly and lawfully (collection limitation).*

The 1980 OECD guidelines stress; in Article 7, the rights of data subjects in collecting their personal information lawfully and fairly and, where appropriate, with their knowledge or consent. This collection will be fair and lawful when the data subject knows about the identity of the data controller (Simmons and Simmons 2001), and how the data controller will process his personal information (Simmons and Simmons 2001). This protection contains any kind of processing of the personal information either wholly or partly by automatic means. In this respect, the Court of Justice of the European Union ruled that any act of referring, on the internet, to the persons' telephone number or information regarding their working conditions and hobbies constitutes the processing of personal information within the meaning of article 3 (1) of the Directive[86].

Furthermore, it should be made clear to the data subject which data which are compulsory and which are optional (United Nations 2003). In addition, when the data subject provides his personal data to a certain data controller, his willingness might extend only to giving these data to that controller, not to another one. For this reason, the consent of the data subject must be clarified before such disclosures (Kobsa 2001).

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[86] Case C 101 of 06/11/2003: Gota Hovratt vs. Bodil Lindqvist Available on: http://curia.europa.eu/en/content/juris/c2_juris.htm

Finally, the collection of personal information should be limited and not exceed the requirements for completion of the transaction (Simmons and Simmons 2001; United Nations 2003). Therefore, the data subject should be informed about the collecting of data related to him and the reason for such collection (Rahman and Raisinghani 2000).

2. Personal data should be processed for the same purposes that are determined beforehand (Data Quality)

Article 8 of the guidelines regulates the data quality principle by emphasising that personal data should be relevant to the purposes for which they are to be used and, to the extent necessary for those purposes, should be accurate, complete and kept up-to-date. To be fair and lawful, personal data should be used compatibly with the aim as clarified beforehand. So, if there is any plan to surpass this aim, it should be accepted by the data subject before that action (United Nations 2003). According to Rahman and Raisinghani (2000) the criterion to determine the legitimacy of processing personal information is kept to the appreciation of the courts or national data protection institution.

3. Personal data should be necessary and not excessive in relation to the purposes for which they are processed (Purpose Specification).

The purposes for which personal data are collected, according to Article 9 of the OECD guidelines, should be specified not later than at the time of data collection and the subsequent use limited to the fulfilment of those purposes or such others as are not incompatible with those purposes and as specified on each occasion of change of purpose. For example, the data collected to monitor the proper delivery of goods or performance of the service ordered by consumer should not be used for other purposes without the consent of consumer for such use (Rahman and Raisinghani 2000). This means that data supplied by the data subject should be necessary and sufficient to

complete the transaction. So it is not acceptable to ask the data subject to give his date of birth where such information is not necessary to complete the transaction (House of Lords 2008). Thus, if the data controller asks for such data, he should tell the data subject how he will use them (Article 10 of the Guidelines). However, the limitation principal can be seen elsewhere in the Commission of the European Communities' decision of 6th September 2005 on the adequate protection of personal data contained in the passenger name record of air passengers transferred to the Canada Border Service Agency. The latter determined a specific target for collecting personal information of passengers from European and other carriers. This target is to "identify persons at risk to import goods related to, or persons who are inadmissible to Canada because of their potential relationship to, terrorism or terrorism-related crime, or other serious crimes, including organised crimes, that are transnational in nature (European Commission 2006, p.53)"

4. Personal data should be accurate (Openness)

The guidelines ensure that means should be readily available of establishing the existence and nature of personal data and the main purposes of their use, as well as the identity and usual residence of the data controller. So, there should be no undisclosed collections of data (OECD 1980, Article 9). Additionally, in relation to this principle, some sites have "nuisance visitors" who might give personal data relating to another person. For that reason, data controllers should have techniques, for example e-signature, to verify the identity of the visitor. Also, these data should be updated if there is any change in circumstances (Simmons and Simmons 2001).

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5. The data controller should not keep the data longer than is necessary for that purpose (Purpose Specification)

There is no maximum period for such retention, so such periods differ from case to case. For that reason, the purpose for which personal data are collected should be specified not later than at the time of data collection and the subsequent use limited to the fulfilment of those purposes or such others as are not incompatible with those purposes and as specified on each occasion of change of purpose.

6. Personal data should be processed in accordance with the rights of the subject (Individual Participation)

Some of these rights are the subject's right to access his personal data and ask for a copy of it (Article 13A). In this situation the data controller might charge the data subject, taking into in consideration that the data controller has the right to refuse such requests if the data relates to another person and if there is no acceptance from this person to reveal his data (Simmons and Simmons 2001). In addition, the data subject has the right to prevent the data controller from processing their data if such processing might cause damage or distress (Simmons and Simmons 2001). In all, cases, the data subject has the right to challenge the data controller's decision (Article 13 of the Guidelines). Besides, the right of participation can be seen in the decision of the commission of the European Communities concerning the implementation of the Internal Market Information System as regards the protection of the personal information. This decision, issued on 12th of December 2007, emphasised the right of the data subject to access, to rectify and to object according to the applicable data protection legislation (European Commission 2008, p.19).

7. *Security of personal data (Security Safeguards)*

The data controller should take into consideration the tools and techniques that give the data subject the confidence and trust that their personal data will be kept secret (Azmi 2002). For that reason, Article 11 stated that personal data should be protected by reasonable security safeguards against risks such as loss or unauthorized access, destruction, use, modification or disclosure of data.

8. *Transferring personal data*

Transferring data outside the OECD member countries is prohibited unless it is to places which ensure an adequate level of protection for the rights of the data subject (OECD 1980; Simmons and Simmons 2001). This principle is found in article 17 of the Guidelines which stresses that a member country should refrain from restricting trans-border flows of personal data between itself and another member country except where the latter does not yet substantially observe these Guidelines or where the re-export of such data would circumvent its domestic privacy legislation. The best example concerning this article is the report of the Belgian Data Protection Authority in the case of the Worldwide Interbank Financial Telecommunication (SWIFT). In the name of countering terrorism, the US Treasury's Office of Foreign Assets Control (OFAC) requires SWIFT in the US to transfer all personal data held on its server to the OFAC. The Belgian data protection authority, in its opinion of 27/09/2006, states that the way that SWIFT processes personal information breaches the Belgian Data Protection Law which implements Directive 95/46. The Belgians' authority found a breach to the processing of personal information relating in the transferring of data to a third country.

Further, to ensure the obedience of the member countries with the principle mentioned in the guidelines, Article 14 compels the data controller to take the measures that give

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effect to these principles. For example, these measures can be seen in the decision of the European Community issued on 5th of February 2010. This decision has determined the standard contractual clauses for the transfer of personal data to processors in third countries[87].

As has seen from the above, the OECD guidelines try to enact some of the principles to be adopted in the practical sphere. These principles are called fair information practices principles and the aim is to ensure a high level of protection for consumers who are willing to buy online. In addition, these provisions mentioned in the guidelines have an impact on the national and regional legislations concerning the protection of personal information. This is because, as mentioned above, it was the first legislation that regulated matters related to the processing of personal information. Further, the OECD Guidelines are considered a valuable model for developing policies which respect the democratic values regarding to personal information protection (Council Of Europe 2001). Therefore, the European Union Directive 1995 on data protection was one of the legislations influenced by the OECD Guidelines, as will be discussed in the following lines.

European efforts to regulate privacy:

The main regional effort on regulating privacy has taken place in Europe. Europe has several directives concerning privacy issues. The European Convention for the Protection of Human Rights and Fundamental Freedoms was adopted under the patronage of the council of Europe in 1950. This convention stated on the right to

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[87] Full text available on:
    http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:039:0005:0018:EN:PDF

privacy in Article 8[88]. This convention was the basis for creating the European Commission of Human Rights and the European Court of Human Rights (ECHR). One of the court's rulings that judges depend on for interpreting Article 8 of this convention is the Leander Case of 26 March 1987. In this, the court reviewed cases of individuals' access to their personal information in government files, to ensure that adequate procedures exist. In addition, the processing of personal information should be in accordance the law, which leads the ECHR to rule, according to article 8, that the collection and storage of personal information relating to Ms Copland through her use of the telephone, e-mail and internet interfered with her right to respect for her private life and correspondence, and that that interference was not in accordance with the law

The relevant second treaty enacted in the European Union is the Treaty of the European Union,[89] which confirmed the same values that are mentioned in the ECHR. The third statute of relevance was the Convention for the Protection of Individuals with Regard to the Automatic Processing of Personal Data, which was adopted in 1981 (No 108). The European Commission recommends the member states to sign this convention on the grounds of increasing electronic processing of personal information with the possibility of its being misused; this makes the commission to ensure the need to find a comprehensive protection for individuals' privacy (European Commission 1981). According to Article 1 the purpose of this convention is to secure in the territory of each party for every individual, whatever his nationality or residence, respect for his rights

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[88] Article 8 states "1- Everyone has the right to respect for his private and life, his home, and his correspondence. 2- There shall be no interference by a public authority with the exercise of this right except such as is in accordance with law and is necessary in a democratic society in the interest of national security, public safety, or the economic well-being of the country, for the prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others."

[89] The Treaty of the European Union as amended by the Treaty of Lisbon in its EU Official Journal Version, dated 17 December 2007.

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and fundamental freedoms, and in particular his right to privacy, with regard to automatic processing of personal data relating to him. This convention states in article 5 and article 12, the rules that should be followed concerning the processing of personal information. This convention adopted the same principle regulated in the 1980 OECD Guidelines. Moreover, this convention obliges the signatories to enact legislation concerning the automatic processing of personal data.

In addition, another relevant regulation in protecting personal information is the EU Directive on Data Protection (Directive 95/46/EC).[90] The main aim of this directive, according to Article 1, is to oblige member states to protect the fundamental rights and freedoms of natural persons and in particular their right to privacy with respect to the processing of personal data.

Moreover, there have been other directives issued by the Council of European Union and its subsidiary organizations relating to privacy and data protection concerns, such as the Directive 97/66 EC[91] on electronic communications. This directive is enacted to boost the objectives that Directive 95 contains, such as articles 4 and 5, concerning the security and confidentiality of personal communications. Directive 2002/58 EC[92] or the "E-Privacy Directive", which is complementary to Directive 95, includes provisions relating to privacy concerns, and the Charter of Fundamental Rights (2000). The

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[90] Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data.

[91] Directive 97/66/EC of the European Parliament and of the Council of December 1997; concerning the processing of personal data and the protection of privacy in the telecommunications sector.

[92] Directive 97/66/EC of the European Parliament and of the Council of July 2002 concerning the processing of personal data and the protection of privacy in the telecommunications sector (Directive on privacy and electronic communications).

Charter aimed to guarantee for the people of the EU member states several rights, including the right to privacy.[93]

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[93] Article 8 states that "1-everyone has the right to the protection of personal data concerning him or herself. 2- such data must be processed fairly for specified purposes and on the basis of the consent of the person concerned or by some other legitimate basis laid down by law. Everyone has the right to access data which has been collected concerning him or herself, and the right to have it rectified."

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Appendix B: Ethical Approval

Subject: Conditional ethical approval
From: Jennifer Lambie (jlambie@dmu.ac.uk)
To: maheraljaber@yahoo.com;
Date: Friday, August 21, 2009 10:57 AM

Dear Maher,

Thank you for submitting the extra documentation to support your application for ethical approval. I have passed this to the Chair of the Faculty Human Research Ethics Committee. It was decided that your application status will remain 'conditional' until it can be reviewed at the next meeting of the committee. However, you are permitted to begin your research now.

 Kind regards,

 Jennie Lambie

Technology Faculty office
De Montfort University
The Gateway
Leicester
LE1 9BH
0116 2577050

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Appendix C: Consent Letter

<div align="center">

English version

The Informed Consent Letter

</div>

Dear Participant,

My name is Maher Aljaber, a research student at De Montfort University in the UK. First of all, I would like to thank you for your participation in this study. I am conducting research on the impact of privacy regulations on the development of electronic commerce. This interview is part of my research project, which seeks to gain a personal view on this topic. The interview will last no longer than 30 minutes.

The purpose of this research is to investigate the impact of existence of privacy laws and regulations on the consumers' willingness to deal online without any fear about disclosing of his/her personal information. Your participation in this study is important and the findings of this study could provide an insight into how regulations protect consumers' privacy.

I would like to assure you that your responses will remain anonymous and confidential, and will be used only for research purposes. Your participation in this study is completely voluntary. You may decide not to answer any of the interview questions or answer them in any order if you wish. You can withdraw at any stage during the interview or afterwards by emailing me at the email address below.

Finally, your participation is appreciated, and If you would like to be sent the findings of this study, or have any questions regarding this study, please do not hesitate to contact me.

Yours sincerely,

Maher Aljaber
Centre for Computing and Social Responsibility.
Faculty of Technology.
De Montfort University - The Gateway
Leicester
LE1 9BH
Email: p07032164@myemail.dmu.ac.uk OR maheraljaber@yahoo.com
Mobile Phone: 00447432084631

I have read the information presented in the information letter about a study being conducted by Maher Aljaber for a PhD project at De Montfort University.

I have had the opportunity to ask any questions related to this study, and received satisfactory answers to my questions, and any additional details I wanted.

I am also aware that excerpts from the interview may be included in the project paper to come from this research. Quotations will / will not be kept anonymous. I do/do not give permission for my identity to be revealed in research reports.

I was informed that I may withdraw my consent at any time by advising the student researcher.

With full knowledge of all foregoing, I agree to participate in this study.

Participant's Name: _____

Participant's Signature: _____

Interviewer's Name: _____

Interviewer's Signature: _____

إقرار القبول بالمشاركة

عزيزي المشارك,,,

أحيطكم علما" بأنني أنا الباحث ماهر جابر الجابر أقوم بإعداد رسالة الدكتوراة في جامعة دي مونتفورت في بريطانيا. في البداية أود أن أعبر عن خالص امتناني وشكري لمشاركتك في هذه الدراسة المتعلقة ببحث مدى تأثير وجود قوانين خاصة بالخصوصية على تطور التجارة الالكترونية. كما أن هذه المقابلة تعتبر من مستلزمات إكمال هذه الدراسة والتي لن يزيد وقتها عن ثلاثون دقيقة.

كما أشرت انفا" فإن سبب هذه الدراسة هو دراسة مدى تأثير وجود قوانين خاصة بحماية خصوصية الزبائن عند شراؤهم عبر الانترنت على رغبتهم لإبرام عقود الشراء عبر الانترنت دون وجود أي خوف من قبلهم على إفشاء معلوماتهم الخاصة عبر الانترنت. لذلك فإن مشاركتكم في هذه الدراسة ضرورية لإكمال أهداف الدراسة.

وبناء" على قبولكم المشاركة فإنني ألتزم بالحفاظ على سرية المعلومات المقدمة من قبلكم وعدم استخدامها لأي سبب اخر غير أسباب هذه الدراسة. كما أؤكد ان مشاركتكم اختيارية ولكم مطلق الحرية في عدم الإجالة على أي من الأسئلة المطروحة. كما أن لكم كامل الحرية في الانسحاب في أي وقت خلال أو بعد إجراء هذه المقابلة بإرسال بريد الكتروني على البريد الالكتروني المبين أدناه تبين فيه رغبتكم في الانسحاب من هذه الدراسة.

في النهاية, فإنني أكرر جزيل الشكر لمشاركتكم في هذه الدراسة وكما أود أن أؤكد على أنني على استعداد لتزويدك بنتائج هذه الدراسة أو الاجابة عن أي تساؤول يتعلق بهذه الدراسة.

وفي النهاية، تقبلوا خالص الشكر والتقدير ،،، والسلام عليكم ورحمه الله وبركاته.

ماهر جابر الجابر

Centre for Computing and Social Responsibility.
Faculty of Technology
De Montfort University
 Leicester
 LE1 9BH
 Mobile Phone: 00447432084631
 Email: *p07032164r@myemail.dmu.ac.uk*. **OR** *maheraljaber@yahoo.com.*

أقر أنا الموقع أدناه بأنني:

1. قد قرأت المعلومات أعلاه المقدمة من قبل السيد ماهر الجابر المتعلقة بموضوع الدراسة التي يقوم بإجراؤها في جامعة دي مونتفورت في بريطانيا.

2. قد قمت بسؤال الباحث عن كل ما يتعلق في هذه الدراسةقبل إجراء هذه المقابلة وقد تلقيت اجابات مقنعة لكل ما استفسرت عنه.

3. لا أمانع من استخدام مقتطفات من هذه المقابلة في الدراسة كما لا أمانع أن تكون هذه المقتطفات غير مبهمة متى اقتضى الأمر.

4. قد أحطت علما" بإمكانية اعتذاري عن إكمال المقابلة في أي وقت.

بناء" على كل ما تقدم فإنني أوافق على المشاركة في هذه المقابلة وعليه أوقع.

اسم المشارك _____   اسم معد الدراسة_____

التوقيع_____   التوقيع_____

Appendix D: Interviews Protocol

Jordan Protocol

Research objectives

This investigation will be a type of comparison study between Jordan and the UK. The aim of this research is to investigate the impact of privacy regulations on the development of electronic commerce. This will be carried out by discussing three main points: the reasons why privacy constitutes an obstacle to electronic commerce, the national and international regulations concerning privacy issues, and the other electronic commerce implementation drawbacks and their influence on the consumers' willingness to provide their personal information online. These aims will be achieved through studying the above concepts from the legal experts', consumers' and company representatives' perspectives. This helps the researcher to obtain more details and feedback from different stakeholders and viewpoints through discussing their experience and knowledge about electronic commerce.

The main research question of this research is

1. *Investigating the impact of privacy regulations on the development of electronic commerce.*

Further, the current research addresses the following sub-questions

2. *An investigation into the reasons why privacy constitutes an obstacle to electronic commerce.*

3. *If privacy inhibits EC development, an investigation of other EC drawbacks and their influence on privacy concerns.*

4. *A review of national and international regulations concerning privacy, emphasising the regulations of Jordan and the UK.*

Data will be collected from the perspectives of respondents, consumers, companies and policy makers. Specific questions will be asked for each category of interviewee, which

will help in answering the proposed research questions. These are the initial proposed questions that will be revised along with further questions that will be raised according to the flow of data.

Consumers' questions

- Could you tell me about your experience with electronic commerce transactions?

- As a consumer, could you tell me about your concerns when you deal online?

- To what extent do you think privacy concerns influence the consumers' willingness to buy and sell online?

- How do you know if the website is secure and safe?

- If you want to buy or sell a product through the internet, are you confident to buy/sell through national/global websites? Why?

- In your opinion, could you describe the factors that influence Jordanian/UK consumers to deal online?

- How do you describe the role of regulations in addressing these concerns?

Company representatives' questions

- As a company how do you perceive electronic commerce?

- Could you tell me about the factors that influence businesses to adopt electronic commerce activities?

- From your experience, what are the main concerns that influence the consumers' willingness to deal online?

- How do consumers deal with security and safety matters?

- How does the need to provide the consumers' personal information influence their willingness to buy and sell online?

Legal experts' questions

- Could you describe the impact of regulations on electronic commerce activities?

- Could you describe the legal factors that influence electronic commerce?

- As a legal expert, to what extent do you think the protection of personal information influences consumers' willingness to buy and sell online?

- How would you describe the existing regulations with regard to protecting privacy and personal information while purchasing through the internet?

- What do you think is the most important thing that should be taken into consideration with regard to the existing regulations?

Field procedures

The method used will be semi-structured interviews with open-ended questions, which help to get in-depth data about the research questions under investigation. This happens by giving the respondents the opportunity to express their experience and knowledge. On the one side, information will be collected from respondents from the key ministries in Jordan who deal with electronic commerce matters: the Ministry Of Communication and Information Technology, Ministry Of Industry and Trade, and the Ministry Of Justice. In addition, legal experts will be interviewed about their knowledge about electronic commerce and privacy regulations and their influence on electronic commerce activities. On the other side, consumers' perceptions will be discussed through interviewing some Jordanian consumers about other EC implementation hurdles and its influence on the willingness of consumers to provide their personal information online. In addition, companies' representatives will be met to talk about many issues related to their online activities and their role in encouraging consumers to deal online. Interviews were conducted in Jordan in two phases. The first took place in the period 09/2009 to 10/2009, and the second took place between 07/2010 and 09/2010.

UK Protocol

Research objectives

This investigation will be a type of comparison study between Jordan and the UK. The aim of this research is to investigate the impact of privacy regulations on the development of electronic commerce. This will be carried out by discussing three main points: the reasons why privacy constitutes an obstacle to electronic commerce, the national and international regulations concerning privacy issues, and the other EC implementation hurdles and its influence on the consumers' willingness to provide their personal information online. These aims will be achieved through studying the above concepts from the legal experts', consumers', and company representatives' perspectives. This helps the researcher to obtain more details and feedback from different stakeholders and viewpoints through discussing their experience and knowledge about electronic commerce.

The main research question of this research is

1. *Investigating the impact of privacy regulations on the development of electronic commerce.*

Further, the current research addresses the following sub-questions

1. *An investigation into the reasons why privacy constitutes an obstacle to electronic commerce.*

2. *If privacy inhibits EC development, an investigation of other EC drawbacks and their influence on privacy concerns.*

3. *A review of national and international regulations concerning privacy, emphasising the regulations of Jordan and the UK.*

Data will be collected from the perspectives of respondents, consumers, companies and policy makers. Specific questions will be asked for each category of interviewee, which will help in answering the proposed research questions. These are the initial proposed questions that will be revised along with further questions that will be raised according to the flow of data.

Consumers' questions

- Could you tell me about your experience with electronic commerce transactions?

- As a consumer, could you tell me about your concerns when you deal online?

- To what extent do you think privacy concerns influence the consumers' willingness to buy and sell online?

- How do you know if the website is secure and safe?

- If you want to buy or sell a product through the internet, are you confident to buy/sell through national/global websites? Why?

- In your opinion, could you describe the factors that influence Jordanian/UK consumers to deal online?

- How do you describe the role of regulations in addressing these concerns?

Company representatives' questions

- As a company how do you perceive electronic commerce?

- Could you tell me about the factors that influence businesses to adopt electronic commerce activities?

- From your experience, what are the main concerns that influence the consumers' willingness to deal online?

- How do consumers deal with security and safety matters?

- How does the need to provide the consumers' personal information influence their willingness to buy and sell online?

Legal experts' questions

- Could you describe the impact of regulations on electronic commerce activities?

- Could you describe the legal factors that influence electronic commerce?

- As a legal expert, to what extent do you think the protection of personal information influences consumers' willingness to buy and sell online?

- How would you describe the existing regulations with regard to protecting privacy and personal information while purchasing through the internet?

- What do you think is the most important thing that should be taken into consideration with regard to the existing regulations?

Field procedures

The method will be semi-structured interviews with open-ended questions, which help

to get in-depth data about the research questions under investigation. This happens by giving the respondents the opportunity to express their experience and knowledge. On the one side, information will be collected from respondents from the key players/persons from the public sector in the UK who deal with electronic commerce matters. Besides this, legal experts will be interviewed to speak about their knowledge of electronic commerce and privacy regulations and their influence on electronic commerce activities. In addition, consumers' perceptions will be discussed through interviewing some UK consumers to speak about other EC drawbacks and its influence on the willingness of consumers' to provide their personal information online. Further, company representatives will be met to talk about many issues related to their online activities and their role in encouraging consumers to deal online. Interviews were conducted in the UK in one phase which took place in the period 03/2011 to 05/2011.

Appendix E: Extra Example on the Emerged Concepts from the Jordanian Context

Text	Category	Respondent
So the trust and confidence is the main reason that encourages me to provide my personal information to unknown party	Characteristics factors	R11
In Jordan, you can find someone who is buying from e-bay; he might take the risk to buy online. This risk could be reduced by the covering his back option when he goes to buy the pre-paid internet card with a limit of money. So the problem is just confidence and honesty	Characteristics factors	R15
Electronic transactions have started in the banking sector but the trust inside the Jordanian citizens is not enough to encourage this field. So, they prefer to go to the bank and withdraw money from the teller and don't use the ATM	Characteristics factors	R15
But we aren't concerned about this issue……, the most important thing for us is increasing the number of people who sell online. This happens by encouraging consumers to buy from Jordanian companies	Characteristics factors	R11
In my opinion, the level of security systems adopted by Jordanian companies has no affect on the consumers' willingness to buy online, but their satisfaction about	Personal factors	R6

electronic commerce benefits is important as well		
This appears in the customs department reports which indicate that Jordanians buy from global websites	Personal factors	R11
The problem with EC in Jordan is the awareness of consumers	Personal factors	R10
The problem is the awareness among the consumers about electronic commerce	Personal factors	R15
The main problem is awareness among the citizens about EC. That is the reason why we do not have a large number of e-transactions in Jordan. They have no idea of how to know if the website is secure or not which makes them more concerned about their privacy	Personal factors	R5
We have some companies that sell through the internet. But the problem is inside the people. They do not know about these companies because the concept in regards to selling and buying through the internet is still vague	Personal factors	R8
The problem is awareness among the consumers about EC. For that we work to teach students a module about electronic commerce	Personal factors	R7
We have a problem with electronic commerce	Personal factors	R5

implementation in Jordan, and this is due to the lack of awareness among the consumers about the ways to be ensured about the website if it is secured or not. At this side, there is a duty on the government to increase the awareness within them about this issue	395	
The consumer can determine if the website is secured or not from a number of options: the website should use the https portal and from the anti viruses that exist on his/her PC. This is because if the PC is attacked then it could sniff the credit card details and put his/her account in danger	Personal factors	R1
From my experience as an engineer, there should be a logo mentioning that a website is secured and you can buy from it	Personal factors	R2
There is still a duty on the consumer to know the tools that make him safe from hacking and to be assured that the website is secured. He can do that from the padlock sign, https portal, and from the age of the website. And the problem is that not all of our citizens know about these issues	Personal factors	R16
Our Jordanian consumers do not read the privacy policy that exists in the website, and they do not know about	Personal factors	R11

the regulations that exist in the website's country		
We share with our partners from public and private sectors in conducting seminars to increase the awareness among the citizens and merchants about electronic commerce.	Personal factors	R10
We try to increase the awareness among the consumers from TV and radio programmes	Personal factors	R10
Concerning the awareness, we work to increase it by making brochures and sending emails to the citizens about electronic commerce	Personal factors	R6
In regard to the awareness, we are working with our partners from public and private sectors to solve this problem. We are working with the higher education ministry to change the legal and commercial modules about electronic commerce	Personal factors	R11
I am not encouraged to buy online and this is because there is no guarantee to protect the transaction	Personal factors	R2
I prefer buying directly from the shop. This is because if I buy online, the transaction might be not secured and my detail could be thieved. So, from the shop it will be more secure	Personal factors	R3
The main thing that prevents me buying	Personal factors	R2

online is the protection of my privacy and personal information. This happens if the website is not secured or if I have a virus on my PC, which helps the hacker to get access on my account and withdraw from it	397	
Consumers buy with concern for their privacy, so if we protect their privacy we can talk about EC in Jordan	Personal factors	R15
We do not see a large number of e-transactions in Jordan. This is due to the belief among the consumers that this kind of transaction is not secured and there is possibility for another party to know their personal details. The main concern for them is their credit card details which could be under threat	Personal factors	R7
In Jordan, the problem with EC implementation is constituted in the fear of the consumers to put their personal details through the internet which might be stolen. They do not trust using credit cards and they prefer to use cash more than cards	Personal factors	R5
In regard to privacy issues and the concern of consumers about putting their details online, I should mention that we have tools that protect the consumers' privacy. However, these concerns	Personal factors	R11

will be alleviated with time		
The problem is the credit card. This is because our citizens are still not encouraged use it online due to their privacy concern	Personal factors	R9
We have a secure website but the problem is the mentality of our consumers. Some of them have a credit card but they are not interested to use it through the internet due to their concern about their privacy which is shaped in stealing of their personal details	Personal factors	R9
The main barrier is the consumers themselves. This is because they do not trust putting their credit card number through the internet, so we have to encourage them to do that. Otherwise, we cannot talk about EC in Jordan	Personal factors	R8
Consumers' concerns about their privacy affect the number of credit card holders in Jordan. This is due to the consumers' beliefs about credit cards and their protection	Personal factors	R16
People do not use their credit card, but they use the prepaid card. The problem with this card is that the banks do not have any responsibility if the transaction is hacked, due to their contract with the client. So, we cannot talk about	Personal factors	R10

EC with this kind of card due to the aforementioned reason and the limit of this card	399	
Jordanian companies have realised the benefits of electronic commerce, but they do not have awareness about how to practise it in the correct way	Organizational Factors	R12
We conducted a study in 2008. This study has mentioned that 1% of the SMEs use e-commerce in their activities which is very small	Organizational Factors	R11
EC in Jordan is still at the initial stage and the number of companies that practise electronic commerce is small. This illustrates that the companies are still fearful of this sector	Organizational Factors	R5
The main issue is to encourage companies to sell their products online. We have three or four companies in Jordan selling online and this is a good start but still a little	Organizational Factors	R11
If you want buy through the internet a product costing JD10, this price should include the delivery cost or at least the price of the product should be less than the price of the product if you want buy it directly from the shop and then add the delivery cost	Organizational Factors	R12
The problem with the companies is that they want to be the dominant	Organizational Factors	R15

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party in the contract with the consumers. This is displayed in the prices of the advertised products	400	
We do not have connection with the companies that practise EC. This is because they are not encouraged to publish their records due to the taxation issues. We met them and they are convinced that EC will reveal their activities, and for that they do not practise EC at the beginning	Organizational Factors	R7
Awareness should be increased among the private sector members and businessmen, and this is a collaboration responsibility between the public and private sectors	Organizational Factors	R8
The main target for us is to support merchants to be able to advertise their products and services online	Organizational Factors	R11
The problem is that companies are not ready to practise EC in Jordan, and this creates a gap between them and the consumers. This makes the consumers buy from foreign companies	Organizational Factors	R12
Delivery services are important for the success of EC in Jordan. If the companies provide a delivery service with free charges this will encourage citizens to buy online	Organizational Factors	R7
There are a lot of students who buy their	Organizational Factors	R12

books from Amazon and E-bay which affects the Jordanian companies		
The fact is that our consumers are aware about e-commerce more than Jordanian companies	Organizational Factors	R12
No, I do not buy anything from Jordanian websites, because I prefer to buy from global and famous website. Further, I still do not trust our Jordanian websites and to be honest I did not enter any of these websites	Organizational Factors	R1
Selling strategy is not easy because it needs a good and fast website which should be hosted in a good place. This website should be safe and secured and the consumer should be convinced about that. Payment gateway and delivery facilities are other factors	Technical factors	R12
In the last ten years some changes have happened in regards to the payments gateway, and this helps companies to practise e-commerce	Technical factors	R7
The website should be secured and safe to make the consumers trust in this website	Technical factors	R8
Companies should have servers supplied with software to enhance the protection	Technical factors	R15
One study conducted in 2008 about the internet penetration in Jordan	Economic factors	R11

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mentioned that 27% of Jordanians use the internet. So if we want to encourage electronic commerce in Jordan, then we have to spread the internet usage in Jordan. As a government we release this issue and one of our strategies to achieve that is reducing the prices of subscription	402	
There was a problem in the internet subscriptions costs because it was quite high compared with the Jordanian salaries	Economic factors	R7
Customs and tax are the main economic factors that prevent our companies entering the field of electronic commerce. This is because there are no regulations that regulate these issues	Economic factors	R10
We have some companies that sell their products online, but the problem is that these websites are still not known to the Jordanian consumers. I think this is due to the lack of awareness in the companies about electronic commerce	Economic factors	R8
On the e-government side, we will exhibit some of our governmental services online at the end of 2010	Governmental factors	R13
Another effort for the government is the information security eligibility criteria. Each	Governmental factors	R6

government institution should apply these criteria to their website for the sake of the success of the governmental online service. Nothing happens in regards to these criteria		403
To encourage people practising electronic commerce, appropriate regulations should be enacted and understanding of these regulations from our citizens should be conducted	Legal factors	R15
Appropriate regulations should be enacted	Legal factors	R15
The lack of regulations is one of the main Barriers that the government encountered in the electronic commerce field	Legal factors	R7
Regulations are the main hurdle for electronic commerce in Jordan. We are working on the cyber crime law, electronic transaction act, and consumer protection law	Legal factors	R8
So, one of the main requirements is enacting specific regulations that control all issues related with electronic commerce. One of these regulations is the temporary electronic transaction act of 2001 which needs to be revised and amended and we are working on this matter. Besides, the government has issued the cyber crime law of	Legal factors	R7

2010, and working to issue the digital signature law		
The existing regulations are certainly not enough to regulate the electronic commerce in Jordan. For example, there is a problem with determining the body responsible for issuing the digital certificate. For that we need a new regulation that regulates all the issues related with electronic commerce	Legal factors	R10
We recommended amending the transaction act of 2001.We enacted the cyber crime law 2010. The first seven articles are concerned with security issues	Legal factors	R6
The system of accreditation and licensing bodies' electronic authentication and issuance of documentation system is another effort for government. But this effort is still on the road map	Legal factors	R6
Customs and taxes constitute a problem for practising electronic commerce in Jordan. There is no regulation that controls these matters and this makes consumers and companies not encouraged to deal online.	Legal factors	R8
From the legal side, we have a Jordanian transaction act of 2001.	Legal factors	R15

But this law is a terminology draft of the model law, which means that a lot of issues are not regulated in this law	405	
We have the transaction act of 2001 but the problem in this law is that the government has adopted the UNCITRAL model law without any changes	Legal factors	R15
We have the temporary electronic transaction act of 2001. It is the legal umbrella of electronic transactions. We revised this law and we intend to issue a new draft of law. Besides, we intend to issue the system of accreditation and licensing bodies' of electronic authentication and issuance of documentation system. The cyber crime law was enacted in 2010 and we expect the complete regulations will be ready at the end of 2010	Legal factors	R10
The related regulations are the public health law, banking law, insurance law, and the right of access to information law	Legal factors	R13
We can find some protection of the right of privacy in some Jordanian regulations. For example, in the constitution there is an article that prevents the official authorities entering Jordanian homes unless there is a previous acceptance to	Legal factors	R5

do that. However, in relation to electronic commerce there is no specific regulation that protects personal information. So, to encourage electronic commerce in Jordan, this regulation should be enacted	406	
The Jordanian companies do not respect the right of consumers' privacy. For example, I receive advertising messages from different companies without any permission from me. How does this happen? It is easy; the mobile service provider sold my details	Legal factors	R15
We still do not realise the importance of privacy issue. For example, the lawyers can get full details of Jordanian citizens by entering their name and national number without any permission from the citizens	Legal factors	R6
To encourage people to buy through the internet, the right of privacy should be protected. For example, if someone buys a medicine for HIV, the website should protect this transaction and the personal details of the consumer. Besides, it should not provide it or share it with other companies	Legal factors	R5
There are not enough regulations to protect the	Legal factors	R5

right of privacy		
There was no protection for the right of privacy in existing laws. This pushes for the cyber crime law and digital signature law to be enacted which will give some kind of rest for consumers	Legal factors	R7
The solution is enacting regulations that protect the right of privacy and the companies should be complied with protection of the consumers' personal information	Legal factors	R5
The government has issued 17 strategies in regards to information security. Any website wanting to sell online should apply these strategies. For example, the transaction should be encrypted, and should use https protocol. These strategies are specified for governmental institutions and will be applied on the private sector	Legal factors	R8
To protect personal information, the government has issued the national strategy for the protection and safety of personal information. It contains 17 strategies that all governmental bodies should apply in their websites to protect the personal information	Legal factors	R6
To ensure the protection of the right of privacy a smart card, which will be protected from forgery, is being issued	Legal factors	R13

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for each citizen. We are working to specify a digital signature for each citizen. And we are working on issuing the digital certificate to verify that a user sending a message is who he or she claims to be, and to provide the receiver with the means to encode a reply	408	
We do not have any legal expert (judges and lawyers) in electronic commerce matters due to the lack of regulations	Legal factors	R15
We do not have qualified judges in electronic commerce matters	Legal factors	R15
The result of the lack of regulations that protect privacy is the lack of cases in the courts which means a lack of understanding of matters of electronic commerce in Jordan	Legal factors	R5

Appendix F: Extra Example on the Emerged Concepts from UK Context

Text	Category	Respondent
I think it is a fact, because the younger people are aware about the internet, they use it a lot more than the middle-aged people or older people who would not use it.	Demographic factors	R21
In my opinion I think the age of people affects their willingness to make a decision for buying online or not, because they can find some online products a lot cheaper.	Demographic factors	R29
I think the younger people are more encouraged to buy through the internet than older people because they are more experienced in using computer and internet.	Demographic factors	R24
Older people are not encouraged to buy online, because they are not confident with shopping online. Probably most of the older ages have no experience with the internet. And that is why the younger ages are more encouraged to buy online because they can get online.	Demographic factors	R30
I know that a lot of consumers who buy from the internet are young people..........Older people are not interested in buying online because their usage of the internet is just for normal use, reading an article, newspaper, not for shopping.	Demographic factors	R22
Else, maybe the older generation is not	Demographic factors	R22

encouraged to use it, and go to a shop and buy from there.		
I think the new generation (the youth) they are encouraged to buy things online because they know a lot about technology so they will do it more than older people.	Demographic factors	R23
Secondly the old generation would not try it while the young are heavier computer users and can find it easier, because they are more experienced.	Demographic factors	R19
Oh yes and I know how to use it and buy through the internet. But actually I do not use it a lot, but my daughter has got a laptop and uses it for buying some products online.	Demographic factors	R29
No, because I am not online and do not have access to the internet.	Demographic factors	R26
No I still prefer buying from the store, I am old fashioned, I am not a youngster; because we never go online and just go to a shop wherever available.	Demographic factors	R29
Oh yeah, I can do but I do not use it a lot, and most older people have no internet.	Demographic factors	R29
I think the youngsters are more experienced in using computers and the internet than our generation.	Demographic factors	R29
Besides, the new generation can use computers and new technology better than the old generation do and this gives them the ability to	Demographic factors	R32

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buy online. Some of the old generation can deal with the technology but they might be scared of fraud.	411	
Yeah I think the older generation might not able to use it plus they do not trust the system. This is because they might not know how to ensure if the website is secure or not. And some have no access to the internet.	Demographic factors	R27
The main thing is the experience and the knowledge of how to use the internet and computer well that would be the main factors. Security issues constitute another problem for non e-commerce users.	Characteristics factors	R19
Actually I do not use the internet at all.	Characteristics factors	R28
In the future I am not going to buy from the online shop because I do not use the computer and internet at all.	Characteristics factors	R25
Secondly the old generation would not try it where the young are heavier computer users and can find it easier, they are more experienced.	Characteristics factors	R19
Yeah I think the older generation might not be able to use it plus they do not trust the system. This because they might not know how to ensure if the website is secure or not. And some may have no access to the internet.	Characteristics factors	R27
Oh yeah, I can do but I do not use it a lot, and most of older people have no	Characteristics factors	R29

internet. Actually I have no idea why they do not use internet may be because they have no access to internet and computers as well. May be because they never bought computers and are scared of using it and they are looking for a safe way to buy and they are looking for someone to talk to before buying the product.	412	
Maybe shocked from going online, because they were shocked they want a secure place for shopping.	Characteristics factors	R31
No. In regards to the security, generally, yeah, I know when it'll be secured from my past experience if I bought from a particular website before and had not had any problem with paying.	Characteristics factors	R31
Language would never be a key factor because if I cannot understand the language of the website and if a company is abroad I would think about the transaction twice before doing it, if it protects the product or my details.	Characteristics factors	R18
Yes, I do not know how many times but it is quite a lot.	Personal factors	R27
Certainly I did, for a lot.	Personal factors	R31
Actually I did. Probably I prefer buying online for different aspects.	Personal factors	R30
When I first starting buying online I had concerns about giving my details but I regularly	Personal factors	R19

started using the saving websites the more popular ones, I got experience.		
Yes I did, two, three times a week. I prefer to buy through the internet because it is probably easier to buy online because you can receive an alternative if it does not fit your favourites and send it back as well. So it is easy.	Personal factors	R26
Because of so much choice and so much time to shop, I just do it when I am ready to shop.	Personal factors	R2
Yes, I prefer because it is convenient and it is delivered to a home. A concerning thing is I want see the product, so I go to the shop and see the product.	Personal factors	R27
I come in a twice a week and I shop just when I want to shop and that is fair enough that is it all about.	Personal factors	R20
No I still prefer buying from the store, I am old fashioned; I am not a youngster, because we never go online and just go to a shop wherever available.	Personal factors	R29
No I did not because I prefer buying direct from a shop and look at the product before I buy it but online it is a picture. Actually I can find a product anywhere in town and look at what I want buy, so I do not care to buy online.	Personal factors	R32
No I do not, because if I want to buy through the	Personal factors	R31

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internet, I do from the secure website. I have no problems buying online but I do not buy now because I prefer to go to the shop and see what I want buy, but in the past I have no reservations at all.	414	
I prefer the shops in town, because I want see the product I want to buy. But I first buy from the store but if cannot get it I buy it online. In town you cannot find everything you want but go online you can find anything you want. In online shops you have more choice.	Personal factors	R31
I am not really interested in buying online. I prefer to buy from the shop and see the product before buy it. That is why I am buying from the shop and this is the one reason that prevents me buying online.	Personal factors	R26
No, I did not buy anything online. I am just not interested in buying online and I prefer to buy from the shop.	Personal factors	R25
I know the price is cheaper online, but sometimes you get the same price in the store and it is your decision to choose.	Personal factors	R29
Actually I did not buy anything from online shops. Yes I just come into a shop anywhere, but (with strong confidence) no I'd not prefer buying from the internet. I not thought about buying	Personal factors	R20

online before.		
No, because I prefer going to shops and seeing the product I am going to buy. I have a credit card and I can use it online but I am not interested in buying online.	Personal factors	R22
I know the price of the online product is cheaper but I like to buy directly from the shop.	Personal factors	R22
Yes, three times. But I prefer to buy from a store....... lots want talking to a person one to one in a store. Besides, I need to see a product before I buy it.	Personal factors	R29
I do not have any concern about my personal information and if I think to buy from the internet I know where I have to go for shopping, but I want to see the product.	Personal factors	R22
In the future I will remain buying from the shop.	Personal factors	R22
Interviewer: Did you buy online? **Interviewee**: Yeah I have, Three to four times. **Interviewer**: Do you prefer buy online or off-line? **Interviewee**: both, mainly because if you do offline you can see the product and buying online it is quicker, so saving time. So, from my perspective it depends if I want stuff for more than £100 I prefer to go to the shop and buy it. But if less, I do not mind buying it from the internet.	Personal factors	R18

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I probably buy regularly two times a month. I prefer buying online, because on the internet I can get more offers and cheap and it is cheaper than shops.	Personal factors	R19
Yes I did, two, three times a week. I prefer buying through the internet because it is probably easier to buy online because you can receive an alternative if it does not fit your favourites and send it back as well. So it is easy.	Personal factors	R26
Yes, I prefer it because it is convenient and it is delivered to a home. A concerning thing is I want see the product, so I go to the shop and see the product before buying it online.	Personal factors	R27
Easier and sometimes the price is cheaper when compared with the store.	Personal factors	R30
You can find online most products you need for a house; buying technology, washing machine, iPod, foods, furniture.	Personal factors	R27
Sometimes, if I think there is any problem in the website, I do not complete the transaction.	Personal factors	R31
I buy online, but it depends where my personal information would go and where it would end.	Personal factors	R18
I check it before I buy.	Personal factors	R27
Some sites, I do not mind providing my information to the more popular websites. The new	Personal factors	R19

website I cannot give them as much information as possible.		
Yes, why not. But sometimes I have some concerns about my data and am worried if the website protects them or not. I put just the necessary information I need to complete the transaction like the marked fields in the website and the unnecessarily information I do not put in.	Personal factors	R21
I know when the website is safe or not.	Personal factors	R22
If I want to buy through the internet, I do from the secure website. I have no problems buying online but I do not buy now because I prefer to go to the shop and see what I want to buy, but in the past I have had no reservations at all.	Personal factors	R23
From my education study I've being told about the security data protection act and computer misuse sides and I know that all websites should have policies guidelines so I know what to look for.	Personal factors	R19
By using the https protocol and the pad lock sign.	Personal factors	R18
It could be secured if using https and the pad-lock symbol at the bottom right corner. It means that the website has a secure payment gateway.	Personal factors	R17
We've got a data protection act that mentions the things that	Personal factors	R18

should be considered. But the problem is not many people know about the data protection act. So I think the awareness of consumers about e-commerce affects the number of people buying online.	418	
Yes, actually I heard about the data protection act which gives some protection for personal details.	Personal factors	R21
Yes, there is a privacy policy somewhere in the website that should protect your information but the statements lie and pass your information onto a third party company anyway. And that is why I trust buying from the shop rather than online. Actually I heard about the data protection act which prevents companies from using personal information if they do not need it.	Personal factors	R17
Because of the fear of giving information away. They prefer to keep it safe. I know some stories about people having their accounts stolen and obviously they are not still encouraged to go buying online again.	Personal factors	R19
Main thing is privacy issue.	Personal factors	R18
Due to fraud concerns, identity fraud, and credit card fraud.	Personal factors	R27
Maybe shocked from going online, because they were shocked and want a secure place for shopping.	Personal factors	R31

I think some people are still scared of the new technology, and I think most people are afraid of being identifiable and I think that is why a lot of people do not do it.	Personal factors	R21
No, I do not care about shopping online, because I've never thought about buying online and I don't have any idea about the protection of my online shopping.	Personal factors	R20
No, just a case of taking information and hacking the stuff.	Personal factors	R17
I think the younger generation are more experienced in using computers and the internet than our generation.	Personal factors	R29
Yeah I think the older generation might not able to use it, plus they do not trust the system. This is because they might not know how to ensure if the website is secure or not. And some have no access to the internet.	Personal factors	R27
I do not have any concern about my personal information and if I think to buy from the internet I know to where I have to go for shopping, because I want to see the product.	Personal factors	R22
If I want to buy through the internet, I do from a secure website. I have no problems buying online but I do not buy now because I prefer to go to the shop and see what I want to buy, but in the past I have had no reservations at all.	Personal factors	R23

Actually I have no concern because I ensure if the website is secure or not before buying online.	Personal factors 420	R30
No. In regards to the security, generally, yeah, I know when it is secured from my past experience if I bought from a particular website before and hadn't any problem with paying.	Personal factors	R31
Actually I know when the website will be safe and secure and I do not mind putting my personal data in this website.	Personal factors	R26
I know when the website is safe or not and lack of privacy is the reason that makes me not encouraged to buy online.	Personal factors	R22
Some sites, I do not mind providing my information to the more popular websites. The newer websites I cannot give them as much information as possible.	Personal factors	R19
Providing my details depends upon where my personal information would go and where it would end.	Personal factors	R18
I have some concern about my personal data. I fear the stealing of my personal details. But if I want to buy something from the online website I know how ensure if the website is secured or not because I am brilliant in using computers and the internet. But this is not the reason that prevents me buying through the internet	Personal factors	R24