



Review: The Development of a Trustworthy Framework in E-Commerce Applications In Developing Countries

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ABSTRACT: The main challenges that modern organizations are facing in developing countries nowadays with regards to implementing the e-commerce applications are the factors that affect the level of usability and security of e-commerce applications. Attracting online consumers to purchase online through e-commerce applications is not an easy task and many organizations in developing countries like Libya are facing obstacles to get advantages from e-commerce applications and enhance the trust of customers in order to increase online sales through the development of usability of e-commerce applications installed in their websites. The study will discuss the technical problems associated with implementing and maintaining the high usable e-commerce applications for successful business online, and will evaluate the best solutions to overcome the obstacles that prevent the development of e-commerce applications with high quality and security. This study will contribute to the literatures through developing secure e-commerce applications framework featured with high usability, trustworthy and security that enhance online consumer perception to buy product online with full confidence. The technical security issues will be discussed in terms of providing secure online payment mechanisms for e-commerce application, and discuss the importance of secure payment mechanisms from customer perceptions.

Keywords: E-commerce, payment mechanisms, trustworthy, payment security

I. INTRODUCTION

Adopting the idea of e-commerce in developing countries is still in the early stage and it seems like it needs a lot of work in term of its developments and cultural understanding by the internet users. whereas at the most developing consumer markets face severe limitations in terms of connectivity, ability to pay, deliveries, willingness to make purchases online, ownership of credit cards, access to other means of payment for online purchases and accessibility in terms of physical deliveries [1]. Although, some countries have invested heavily in Internet infrastructure and have still failed to gain significant benefit, whereas other countries, such as India and China, have benefited significantly. This current paper research will be attempted to investigate the reason for this lack of benefit by identifying the drivers and barriers for e-commerce adoption in developing countries, such as Libya. However, Libya will be used as a test case since it inherited most of the characteristics of the developing countries. Therefore, data needed in the requirement analysis will be used on Libyan environment. This current study is significant in that previous studies have done, to the best knowledge of the researcher, not yet been undertaken in Libya. Consequently, one of the main problems that will be discussed in this study is how to enhance the e-commerce usability in order to increase the rate of selling products online by Libyan organizations and industries. In addition to that, the poor reliability of e-commerce application is one of the key challenges for the Libyan companies intending to sell products online. In spite of several websites that provide e-commerce in Libya do not provide security guarantees or reliable selling portals for the shoppers online, and these companies need a great improvement in terms of effective applications and understanding the factors which affect consumer perceptions towards security issues online. The study will fully evaluate the problem in order to design an e-commerce website with high level of usability and enhanced with trustworthy. Consequently, as previously displayed of this problem research study is important because it throws light on the difficulty of using e-commerce and establishes why e-commerce adoption is risky. Further, this current study will be based on two directions, the first direction is framework for developing an improved e-commerce model with high level of usability, the second direction is to identify factors affecting consumer perception with regard to e-commerce application in Libya and the other factors associated with online purchasing decisions.



II. LITERATURE REVIEW

There are many literatures and studies examined the factors affecting usability, trustworthy and the impact of providing high security for e-commerce applications on consumer's perception. [2] showed that usability is a very important condition for survival of websites. If a website is difficult to use, people leave. If the homepage fails to clearly state what a company offers and what users can do on the site, people leave. If users get lost on a website, they leave. If a website's information is hard to read or doesn't answer users' key questions, they leave [2] stated that there are plenty of other websites available; leaving is the first line of defense when users encounter a difficulty. [3] found that Trust in E-commerce can be brought through for elements: product quality, payment security system, E-customer relation management, website quality and time of delivery. [3] added that Trust is more and more present in E-commerce environment. It explains why people buy more and more online. We saw that a lot of typical characteristics of pure players are really advantages. First is the website quality; this is the interface between firm and customers instead of a salesperson. Companies totally understood the importance of it and are careful with the quality and the ease of use. [4] found that there are some methods used within e-commerce that contribute trust and security and emphasized on the importance to provide solutions in order to gain a secure and trustworthy e-commerce for all firms that are involved in online businesses. They showed that within some companies the required competence for having a secured e-commerce is not there, and that some companies are overconfidence about the security of their system. Their study also shows that the consumers' experience is very important in order to trust a Web shop. How a user experiences a Web shop could be decisive for his/her trust towards the Web shops. This study substantiates that some Web shops put lots of effort rather, on asking better the consumers' experience of a Web site, than on the technological factors. [5] found that in order to achieve an informed and computer-literate society, IT and Internet access has to be widespread. The online populations in Libya are "infants" and it must be admitted that the level of Internet knowledge is shallow compared to developed countries or even compared to other developing country like Malaysia .The young generation will form the new market place. As the growth of the Internet in Libya continues, peoples' perception will begin to change and fears will begin to reside as they gain understanding of the technology and how to use it. Whereas [6] has found that there was few websites offer delivery to Libya. Currently, hardly one percent of retailers in the country are involved in e-commerce. A major hindrance to Libya's involvement in electronic businesses is the enterprise attitude [7] conducted a study for a country still in the early stage of implementing and using e-commerce, they concluded that the main concern for users is the reputation of the company, they are looking for a well-known company, and people in Jordan for example deal with national companies like telecommunications because they have established names in the market. [8] have found that buyers are attracted to websites that satisfy them completely, as well as fulfill their affective needs. Various researches on buyer behavior has concluded that buyers attempt to gratify their needs of enjoyment, relaxation and interaction with websites [9] found that several factors have been identified as having influence on the customer's perception of security, such as attitude toward security, user's knowledge and experience of security features, ease of use of the interface and presentation of the website.

III. METHODOLOGY

In this study the researcher uses a mixed approach Qualitative and Quantitative because the two approaches complement each other and also by using both approaches will help to make in accurate conclusion about the study variables such as the trustworthy factor of e-commerce application, and user's awareness in buying online. The qualitative research in this study will be within the earlier phases of this study. The next part of this research is about quantitative approach. The qualitative methodology is used in order to explore and understand the customers' experiences, attitudes, background, behavior, and interactions of internet users intending to buy goods online. The reason for selecting qualitative methodology is to have a complete and detailed description of the adoption e-commerce in Libya that will help the researcher to identify the main obstacles and technical difficulties that Libyan companies are facing to attract internet users to visit their websites and buying goods through their e-commerce applications. The reason to use the quantitative research in the next stage of this research is to have better understanding about factors affecting trustworthy of e-commerce websites depending on statistical tools in order to predict the future of installing trustworthy e-commerce application for Libyan companies, the quantitative approach provide accurate results that can't be predicted using the qualitative approach only, therefore using quantitative analysis will provide high reliability to the final conclusion of the study. The study will utilize by both secondary and primary data. The way of collecting the primary data for this is study is the use of interviews and statistical survey which is a method used to collect in a systematic way, information about practicing e-commerce, also to know and the attitude and backgrounds of the online shoppers. The study will use Statistical Package for the Social Sciences (SPSS) to make the statistical analysis from the collected data. SPSS Statistics is a software package used for statistical analysis, the software is used for survey authoring and deployment (IBM SPSS Data Collection), data mining, text analytics, and collaboration and deployment (batch and automated scoring services). The correlation matrix will be applied in this study in order to identify the relationships between the study variables and identifying which are the most affecting factors on e-commerce



implementation and trustworthy. The output of the analysis on behavioral and technical data will be used to formulate the model for secure environment in e-commerce applications.

IV. CONCLUSION

The Electronic commerce is the practice of conducting trade and retail business online through the use of secure websites. With the latest computerization and Internet technology, the future of international business for all personal or commercial investment companies involves e-commerce and all it has to offer. The research described in this paper has led to the following how to achieve and novel contributions: the research provides an understanding of the e-commerce situation in Libya; Conclusion In this study, the disadvantages of the use of electronic commerce in developing countries such as Libya needs a strong and Research Studies had been used in developed countries. However, E-commerce in Libya still in its infancy, therefore a study of the same subject may result in different drivers and barriers of e-commerce resulting from the rapid change in technology and other issues that may not have been observed in this study.

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