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CHALLENGES OF SECURITY, PROTECTION AND TRUST ON E-COMMERCE: A CASE OF ONLINE PURCHASING IN LIBYA

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ABSTRACT : *E-commerce is a successful business-based innovation via internet. This form of business transaction strategy offers many opportunities for growth in business and marketing services in various aspects. Online shopping is an intermediary mode between marketers or sellers to the end user or the consumers. Nature of online transaction in Libya is constrained by instability resulting from insecurity, unprotected transaction as well as trust. Online shopping could become predominant source of shopping method, if the barriers associated with insecurity, trust and customer's protection are tackled. Owing to the significance of e-commerce towards Libyan economic growth, this paper highlights the limitations associated with e-commerce transaction in Libya and proposes relevant steps towards overcoming these constraints. Relevance of integrating e-commerce in Libyan economic system is discussed with.*

Keywords: E-commerce, online shopping, security, protection, trust .

I. INTRODUCTION

E-commerce encompasses buying and selling of products and services through electronic systems such as internet and other computer related networks. Recently, rapid global growth in e-commerce has increasingly become necessary component of business strategy for efficient transaction. E-commerce technology in business could revolutionize relationships within organizations and individual transaction settings [1].

The Internet has improved traditional brick and mortar stores through the development of e-commerce web sites. Nowadays, many e-commerce especially online shopping had widened the access to their products through new methods of marketing via electronically mediated e-commerce.

Good understanding of the requirements, expectations and the operational concept of internet shopping could an advantage to effective online retailing and as well help the manufacturers in developing more effective and targeted online retailer operations.

E-stores can be operated by either a pure or a traditional retailer [4]. However, there is concern over online shopping especially when customer's

personal information and financial transactions is required to facilitate transaction through internet medium. A lack of trust is likely to discourage online consumers' intentions from purchasing via online stores.

However, with the existence e-commerce, Harridge-March [2] reported that e-commerce serves as cost-reducing strategy for customers through distribution network of goods and services from the provider to the consumer.

Unlike conventional shopping which involves face-to-face transaction; online shopping uses internet, network and web-based technologies in creating interactive medium between sellers and consumers. In addition, the existence of online shopping yield benefits such as easy to business transaction network; saves times and reduces search costs compared to conventional shopping process. Because of these benefits, businesses and companies are widening their access to business transaction through fascinating method of delivery via electronically mediated shopping. With the recent growth of online shopping, it has become an attractive option for expanding the business opportunity available for sellers. By incorporating



online shopping, into business transaction in companies can eliminate the need to construct new building to support services in other to accommodate the increase of consumers. E-commerce is potential tool for successful business innovation [3] with promising advantages over current Libyan online transaction which are noted to have been jeopardized by insecurity. However, this paper highlights the potential limitations associated with E-commerce transaction in Libya and proposes relevant steps to overcoming them. Relevance of integrating e-commerce into Libyan trade system is discussed with respect to their positive impact.

II. THE CHALLENGES OF SECURITY, PROTECTION AND TRUST.

The problems associated with online shopping are more to consumer's protection in transaction that requires privacy and trust between different geographical locations or countries [5]. There is increasing concern over online shopping because of insecurity, lack of customer's protection and trust which are vital elements for a successful online transaction between countries, organization as well as individual.

Udo [6], report that the major problem faced by consumers in an online transaction is security. From survey report, it is obvious the most reports acknowledged that transaction base on e-commerce have been constrained by security. In addition, consumers are concern about their privacy especially when their personal information are required to facilitate transaction besides, potential risks are also posed to those using credit cards to make purchase online. Secured system is needed enhance online shopping since consumers cares for their privacy and security. Furthermore, [6] online shopping paves way to fraudulent act and unworthy credit orders which is also attributed to unsecured services. Trust also plays an essential role on consumer's choice for online purchase. Roca et.al. [7] reported that trust in online businesses determines consumers willingness to engage in online business.

In another study [8], it was pointed out that security, protection policy and as well as reliabilities of companies are major barriers to online shopping. However, consumer's behavior towards online

shopping includes and not limited to [9]; concern over unauthorized sharing of personal information, unsolicited contacts from the online retailer, and undisclosed tracking of shopping behavior. Besides, system security-consumers who are concern about illegal bridging technological protected devices to acquire consumer's personal, financial or transaction-related information. Concern over online retailer fraud cause by purposeful misrepresentation or non-delivery of goods paid for are among the potential threat over online purchase.

Security such as the use of digital signature and certificates could be helpful in controlling risk of fraud for online-based transactions [7]. Improved security system for online shopping could reduce unworthy behavior of consumers' with increase intention for online transaction [10].

Improved security in online shopping could tremendously encourage consumers to engage in e-commerce deal as well as its awareness and role among Libyan economic units. Consumers feel relaxed to use online medium when their capital and information are properly protected [11]. Disposing of the customer's personal detail and credit card information during and after online transaction should be avoided as it gives more room for illegal use of customer's information. Trust in online transaction could be enhanced through policies that incorporate legal, technical, rigorous standards for security, data protection and as well as certificates of independent trusted third parties [10]. In addition, online sellers should encourage trustworthy relationship in order to increase and attract consumers to online transaction by ensuring that every transaction is kept within the scope of agreement [12]. Owing to the need to facilitate e-commerce transaction in Libya we hereby proposed that efficient measures for effective implementation of e-commerce transaction in Libya economic developments should integrate web-based infrastructures so as to;

a. Reduce high costs associated with internet access, such as pronounced in service connection charges, tariff on subscription and hosting charges for websites with sufficient bandwidth.



b. Credit cards issuance should be regulated to monitor and control fraud through predetermined security code and features.

c. Transportation infrastructure through which goods and services are delivered should be enhanced through adapting good maintenance and change of outdated facilities.

d. Transaction should be carried out only through secured network besides; parties embarking on online transaction should be acquainted on security-related issues to ensure reliability.

III. THE ISSUES OF SECURITY, PROECTION AND TRUST RAISED IN LIBYA ONLINE SHOPPING.

Last decade witnessed rapid accumulation of numerous studies on technology-oriented e-commerce weakness. As innovative approach of e-commerce spreads across various sectors, online marketers could benefit from the opportunities attached to online shopping by using taking into consideration the measure capable of reducing crime-prone shopping.

E-commerce transaction in Libya is rapidly improving as industries and individual business unit faces increasing competition. Most companies in Libyan prefer online shopping however; creating globally-base competitive marketing will encourage the production of high value-added goods and services. However, Hunaiti et al. [13] recognizes that e-commerce in Libya are confronted with many challenges such as banking system services, postal system suitability, internet safety as well as customer's attitude towards the growth of e-commerce.

With reference to blog at Face book website pertaining to online shopping in Libya, [14] many bloggers pointed out their thought and views on online shopping in Libya. Here are the listed bloggers' perceptions and most of them have pointed out that the issues that may rise if online shopping is introduced in Libya.

The challenges of online shopping in Libya are;

Anonymous Blogger 1:

"There will be two main problems...the address and trust in the buyer and ways of payment."

Anonymous Blogger 2:

"...Libya is still fresh new to this kind of business"

Anonymous Blogger 3:

"I personally think that Libya need to start having post codes and proper addresses because when you order something how are you going to receive it? You can't always rely on express couriers because they're expensive..."

Anonymous Blogger 4:

"I know online shopping in Libya isn't goanna be done and processed the same way its done in the U.S. etc. I guess the idea that I have is what Ahmed mentioned which is for people to go online. See something they like then they come to the warehouse and purchase it there. Not with a credit card. but just cash."

Anonymous Blogger 5:

"Three things: Reliability (trust), payment methods, reachable addresses. E-commerce is a huge project and is an activity that needs to be coordinated by different entities including banks, suppliers, couriers and also and more importantly a willing buyer..."

Based on these 5 different opinions from 5 different bloggers; frankly speaking from my opinion although e-commerce is not something new in this 21st century, however, e-commerce in Libya is at its early stage. Libyan consumers are ignorant about online shopping due to doubtful factors towards online shopping such as security, trust, privacy and when dealing with online sellers and consumers in and outside Libyan.

Trust as an important factor affecting consumer behavior determines the success of online shopping in Libyan. In the other hand, lack of confidence and trust in online shopping are part of the determinant factor to mass acceptance of e-commerce as an efficient business transaction strategy in Libya. In addition, proper delivery address could raise concern among consumers embarking on online shopping in Libya.

Libyan government and business organizations could lift the limitations by effectively planning and



implementing quality e-commerce shopping strategy for consumers with accepted required. E-commerce remains a potential strategy to boost business transaction in Libya however, trust, security and protection offered in online transaction in Libya should be looked into.

IV. POTENTIAL RELEVANCE OF E-COMMERCE TO LIBYAN ECONOMY

Internet provides wider access for effective business transaction beside its inexpensive and reliability, transaction can be carried out faster and efficiently [15]. Libyan's developing economy could be effectively enhanced through integrating e-commerce technology into business related sectors. As a vast network of people and information, [16] the internet enables e-commerce transaction in Libya by showcasing product and services for sell to potential customers as well providing business access and

information to interested partners. Electronic data interchanged to transact business among business parties in online should be kept private.

Since the intranet allows instantaneous flow of goods and services as well as internal information, vital information could be processed simultaneously and matched with data flow from external e-commerce transactions which could allow for efficient and effective integration of organizational processes. Proper implementation of e-commerce in Libya will facilitate small and medium-sized enterprises to reach the global market since its operation is base on open standard [17].

E-commerce implementation in Libya will facilitate mass customization through ordering systems that allow customers to make choice and order products with respect to their personal and unique specifications. For instance, a car manufacturing company with an e-commerce strategy allows for online order of newly built cars within few days based on the customer's desired specifications. However, the effectiveness of e-commerce integration into company's manufacturing process and ordering is profitable [17]. In addition, the integration of e-commerce could lead to reduction in costs, strategic targeted marketing, and the

facilitation of selling add-on products, services, and new systems when needed.

V.CONCLUSION

E-commerce is a revolutionary tool with the potential to transform Libyan present business transaction. Integration of its benefits to Libyan economy will facilitate business services around the globe. The actual information of the security, protection and trust among consumers in Libya need to be investigated owing to consumers' perspective on the online shopping.

The effect of security, protection and trust towards consumers as well as attitudes plays a key role in e-commerce implementation however, if well implemented, instantaneous flow of goods and services internally and externally. Besides, vital information could also be simultaneously processed to matched with data flowing from external e-commerce transactions which could allows for efficient and effective integration into organizational processes.

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REFERENCES

- [1] Lee G-C., Lin H-F., "Customer Perceptions of E-service Quality in Online Shopping," International Journal of Retail & Distribution Management, vol. 33, no. 2, pp. 161-176, 2005.
- [2] Harridge-March S., "Electronic Marketing, the New Kid on the Block," Marketing Intelligence & Planning, vol. 22, no. 3, pp. 297-309, 2004.
- [3] Yen C-H., Lu H-P., "Factors Influencing Online Auction Repurchase Intention," Internet Research, vol. 18, no. 1, pp. 7-25, 2008.
- [4] Lim H., Dubinsky A.J., "Consumers' Perceptions of E-shopping Characteristics: An Expectancy-Value Approach," Journal of Services Marketing, vol. 8 no. 7, pp. 500-513, 2004.
- [5] Patton M.A., Josang A., "Technologies for Trust in vol. 4, pp. 9-21, 2004.
- [6] Udo G.J., "Privacy and Security Concerns As Major Barriers for E-commerce: A Survey Study," Information Management & Computer Security, vol. 9, no.4, pp.165-174, 2001.
- [7] Roca J.C., Garcia JJ., de la Vega JJ., "The Importance of Perceived Trust, Security and Privacy in Online Trading Systems," Information Management & Computer Security, vol. 17, no. 2, pp. 96-113, 2009.



- [8] Chen Y-H., Barnes S., “*Initial Trust and Online buyer behavior*,” *Industrial Management & Data Systems*, vol. 107, no. 1, pp. 21-36, 2007.
- [9] Roman S., Cuestas P.J., “*The Perceptions of Consumers Regarding Online Retailers’ Ethics and Their Relationship with Consumers’ General Internet Expertise and Word of Mouth: A Preliminary Analysis*,” *Journal of Business Ethics*, vol. 83, pp. 641–656, 2008.
- [10] Grabner-Kraeuter S., “*The Role of Consumers’ Trust in Online-Shopping*” *Journal of Business Ethics*, vol. 39, pp. 43-50, 2002.
- [11] Salo J., Karjaluoto H., “*A Conceptual Model of Trust in the Online Environment*” *Online Information Review*, vol. 31, no.5, pp. 604-621, 2007.
- [12] Mukherjee A., Nath P., “*Role of Electronic Trust in Online Retailing*” *European Journal of Marketing*, vol. 41, no. 9/10, pp. 1173-1202, 2007.
- [13] Hunaiti Z., Masa’deh R.M.T., “*Electronic Commerce Adoption Barriers in Small and Medium-Sized Enterprises (SMEs) in Developing Countries: The Case of Libya*” *Ibima Business Review*, no. 2, pp. 37-43, 2009.
- [14] Facebook, “*Online Shopping-Libya*,” <http://www.facebook.com/topic.php?uid=10594232095&topic=5234>, 2010.
- [15] Mann, Catherine with Sue E. Eckert a Sarah Cleeland Knight. 2000. *Global Electronic Commerce: A Policy Primer*. Washington DC: Institute for International Economics.
- [16] Rosen, Anita. 2000. *The E-commerce Question and Answer Book: A Survival Guide for Business Managers*. American Management Association.
- [17] Smith, Dayle. 2001. *The E-business Book: A Step-by Step Guide to E-commerce*

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