



E-commerce Transactions: An Empirical Study

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Abstract— as in the era of globalization, emerging economies needs a faster and more manageable form of business activities setup for effective commercial transaction. E-commerce or electronic commerce have taken root position in all present day business opportunities in the world. In E-commerce business transactions, buying and selling of products are done over electronic system or by the internet. In this paper, we have discussed about E-commerce transactions, its different types and classes, its effectiveness, and the major factor, i.e., security, which may give the momentum for driving secure E-commerce Transaction.

Keywords— E-commerce, E-business, E-commerce transactions

I. INTRODUCTION

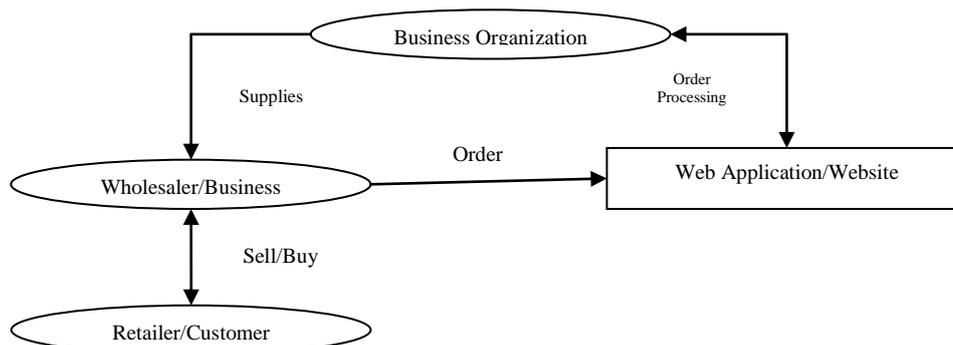
E-Commerce is a means of electronic transformation and digital information processing technology in business transactions to generate, convert, and redefine relationships for value creation among the organizations, and between organizations and individuals [1]. E-commerce basically defines buying or selling of products over the internet. E-commerce implies transactions over networks like internet and public computer networks. It has a vital role in business organizations in delivering complete and effective product information and services to achieve business goal.

This mechanism is widely used in organization for easy management of products and services by using web based applications to implement business operations like logistics, payments, inventory management, etc. and to have greater impact on their intended consumers. It also facilitates the automation of business related information, products and services between organizations and persons. Also E-commerce can provide 24*7 business operations over traditional commerce, wherein it is not possible. The security of information is another important issue in the entire course of e commerce transaction Lifecycle, without it, theft of essential details may be happening and any such important information may be altered. For a secure E-commerce transaction major parameters are confidentiality, integrity and availability together known as the CIA (classic InfoSec triad -confidentiality, integrity and availability - are interchangeably referred to in the literature as security attributes, properties, security goals, fundamental aspects, information criteria, critical information characteristics and basic building blocks) triad. The following are the categories of E-commerce, which are generally accepted by the business community and further, it needs to be secured:

- Business-to-Business (B2B)
- Business-to-Consumer (B2C)
- Consumer-to-Consumer (C2C)

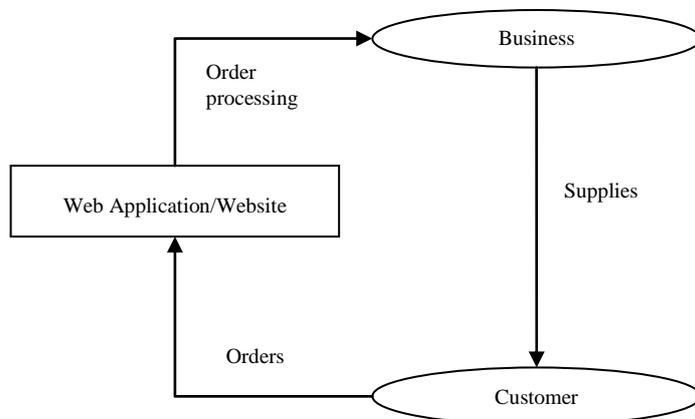
A. Business-to-Business (B2B)

Business-to-Business (B2B) e-commerce is in which businesses' center of attention is on selling to other businesses. Web application follows a B2B type of E-commerce where selling of a product is done to an interim buyer who then sells the product to the last customer. As an illustration, a wholesaler/business organization places an order from a company's website and after getting the shipment, sells the product to last customer who come to buy the product at wholesaler outlet.



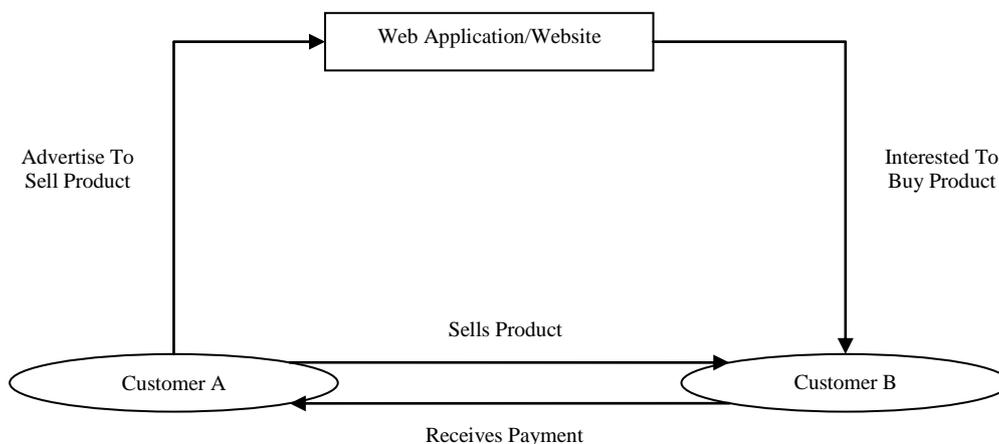
B. Business-to-Consumer (B2C)

Business-to-Consumer (B2C) e-commerce is the most common type of E-commerce transaction, wherein a business organization tends to sell products/services directly to the end individual/group of customers via a web interface/website or by using other electronic communication network like a mobile phone. As shown in the figure a customer places an order through a website of a business organization, the business organization in return process the order and supply product to the customer.



C. Consumer-to-Consumer (C2C)

Consumer-to-Consumer (C2C) e-commerce is the fastest growing type of E-commerce, here business organization acts as a mediator body between buyer and seller, whose key role is to provide a platform (website) to advertise products and interested buyer may buy the product from the seller through direct mutual communication. As shown in the figure Customer A advertise product on a website, and the interested buyer Customer B communicates with A from the given information listed on the website. Finally Customer A sells Product to customer B and receives the payment from B.



II. ADVANTAGES AND FEATURES OF E-COMMERCE

E-Commerce offers advantages to business organizations, individuals/groups, i.e., Virtual Marketplace, Global Presence, Round-the-clock Operation, Centralized Support, Rich Product Information, and Secure mean of Transactions and Eco-friendly technology. It is not mandatory for E-commerce transaction to have physical marketplace, instead a web based interface could be used as a virtual marketplace which provides a platform for product display and business operations. Global Presence has been yet another versatile and important advantage of E-commerce, which enables accessibility of a very wide range of products and services virtually anywhere in the world, even in the remote areas. The feature of global presence has a boosting effect in the entire gamut of international trade, which in turn pose a subsequent impact in the enhancement of an even greater level of global business presence of products and services offered. Hence, this relationship is vice-versa. Technology driven E-commerce can provide automated continuous business transaction round-the-clock. Round-the-clock business operation and the feature of global market presence have enabled the mankind to exceed the physical limitation of Intraday market operations and extended it into a 24*7 process. A centralized support system of any products/service delivery includes aspects like troubleshooting customer complaints, pre-sales services, after-sale services, domestic and abroad staff management, inventory management and execution of miscellaneous functions in the course of operations. Various support tools are in the core part of E-commerce technology to offer better E-business process in an organized structural manner. Category wise detailed description of products/services, their usability, availability and reviews can be displayed in a user-friendly way. Online business transactions also facilitate secure means of transaction wherein user’s details, payment details, billing information, credit

card information can be encrypted which provides a safe and reliable transaction framework. E-commerce is environmental friendly technology, wherein less paper is used for billing and other purposes, hence reducing the carbon footprint of the entire transaction to a significant level, hence making it more nature-friendly.

III. ISSUES RELATED TO E-COMMERCE TRANSACTION

There are several issues which have a profound impact on E-commerce transaction like enhanced connectivity, as we had seen in the past decade, internet connectivity around the globe had shown immense and noticeable growth, which further being evident for more person-to-person communication and hence E-commerce finds an opportunity to scale up its activities and provide a better and efficient way of trade. Deployment of modern communication technology like 4G has given an advantage to users and organizations to communicate in a much faster way, therefore creating more values amongst them. Another technological advancement is a secure payment system, which promises an electronic payment system (EPS) to be more secure and reliable for payments, thus made it trustworthy for E-commerce users to do transactions. New and more complex security algorithms are now installed in the network, to form a secure network over the public internet. The interactive graphical user interface is key part of E-business, where business organization tends to make a more attractive website to capture a large audience of customers, therefore increasing their business turnover and having a remarkable growth in business, while making an easy and simple way of shopping experience for the customer. E-commerce transactions are more time beneficial processed, as compare to traditional commerce; as it allows much faster business transaction. Single window shopping works as a one stop shop where a person can shop for various types of things in one place and can make easy transactions Also, the rapid growth in modern electronic devices in current day technology have given birth to a wide range of electronic devices and mediums which have made our accessibility to required products and services quite easy. Now, almost all types of products and services are easily available to anyone with just a click of a button. Easy, and more acceptable government rules are now empowering organizations and customers to do trade, and thus safeguarding their interests. As per current perspective, organizations follow universal standards to caterers there service round the globe, by using common technologies amongst them.

IV. SECURITY IN E-COMMERCE TRANSACTION

Security in E-commerce transaction is extremely worried matter, among the organizations and individual. As both parties wants to safeguard their interest from unauthorized access, uses, alteration and destruction. E-commerce security includes three major component data security, network security and privacy of the customers. E-commerce transaction includes banking industry payment system, which offers reliable transaction to occur. Some of the security measures have been taken in seriously to avoid risks and thus making a complete and efficient E-commerce system. E-commerce mechanism must keep the confidentiality of the data in all the phases of the transaction. It also makes sure that only authorize personnel have the privileges to access the data in the whole transaction, therefore, access control is a crucial part in an E - commerce transaction. Another important security measure is the encryption and decryption of the data in between the transaction to avoid the vulnerable attacks from the networks.

V. CONCLUSION

E-Commerce forms a high integrated new running method of business affair, like Information Query, Substance transmits financial balance and remote management by way of integrating the application of computer interlink age network and telecom facility. In this paper, we have given some import issue related to eCommerce transaction, and discussed about the different categories of e-commerce. E-Commerce, yet still many safety problems of financial transaction of e-commerce exists, which needs to be improved for further research.

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