

RESEARCH ARTICLE

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## E-Commerce Application Distributed Operating System

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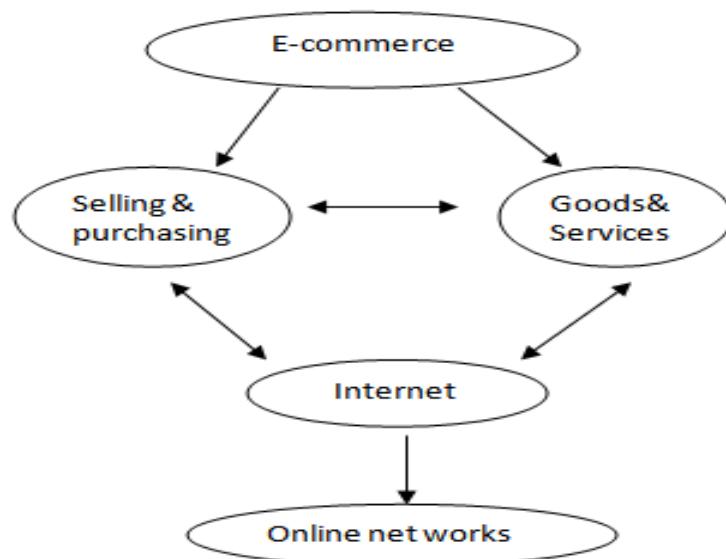
### Abstract

This research paper describes the invention and accessibility of internet connectivity and powerful online tools has resulted a new commerce era that is e-commerce, which has completely revolutionized the conventional concept of business. E-commerce deals with selling and purchasing of goods and services through internet and computer networks. In less than a decade since the advent of the World Wide Web the technology has started to become an integral part of modern society. Possibly quicker than any other technology before it (such as the car or the telephone) the Web has begun to impinge on everyday life for a vast majority of citizens in a very short sac of time. The advent of this new technology has brought with it a whole new industry, language and potential new ways in which society, government and business will and are beginning to operate. Our findings show that, in development and diffusion of ecommerce in China, cultural issues such as “socializing effect of commerce”, “transactional and institutional trust”, and “attitudes toward debt” play a very major role. In this paper, we present and discuss these findings, and identify changes that will be required for broader acceptance and diffusion of e-commerce in China and propose approaches that businesses can use to enhance this development.

### I. Introduction:-

The number of Internet users around the world has been steadily growing and this growth has provided the impetus and the opportunities for global and regional e-commerce. However with Internet, different characteristics of the local environment, both infrastructural and socioeconomic, have created

a significant level of variation in the acceptance and growth of ecommerce in different regions of the world. Over time, various studies have been conducted and models have been developed to identify diffusion of e-commerce in different environments.



(Zwass, 1999; Wolcott, et. al. 2001; Travica, 2002) These models have looked at “infrastructure” (e.g. connectivity hardware and software, telecommunications, product delivery and transportations systems) and “services” (e.g. e-

payment systems, secure messaging, electronic markets, etc.) as the primary diffusion factors. In addition to infrastructural issues, trust (in our paper, we call this “transactional trust”) has been identified as one of the critical issues that confront businesses

that are new businesses or utilize new business models like e-commerce. Numerous studies have

tried to find correlations

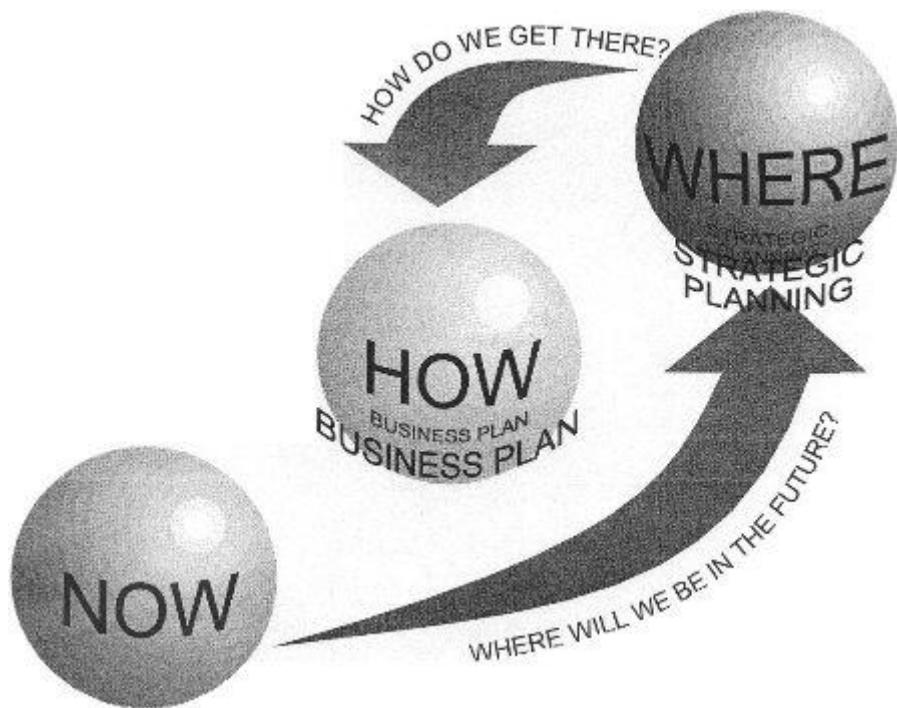


Between trust and experience with a new system, concept, or relationships, including a correlation to frequency of e-commerce activity and other researchers have noted that trust may be significantly influenced by culture of a given society. (McKnight et. al., 1998; McKnight and Chervany, 2001; Lee and Turban, 2001) Grabner-Kraeuter observes and states that trust is “the most significant long-term barrier for realizing the potential of e-commerce to consumers”, (Grabner-Kraeuter, 2002) and others state that trust will be a “key differentiator that will determine the success of failure of many Web companies.” (Urban et. al., 2000) This paper and the associated research focus on the impact of these infrastructural and

socioeconomic factors on e-commerce development in China, and our findings identify changes that will be required for broader acceptance and diffusion of e-commerce in this country.

## II. Objectives:-

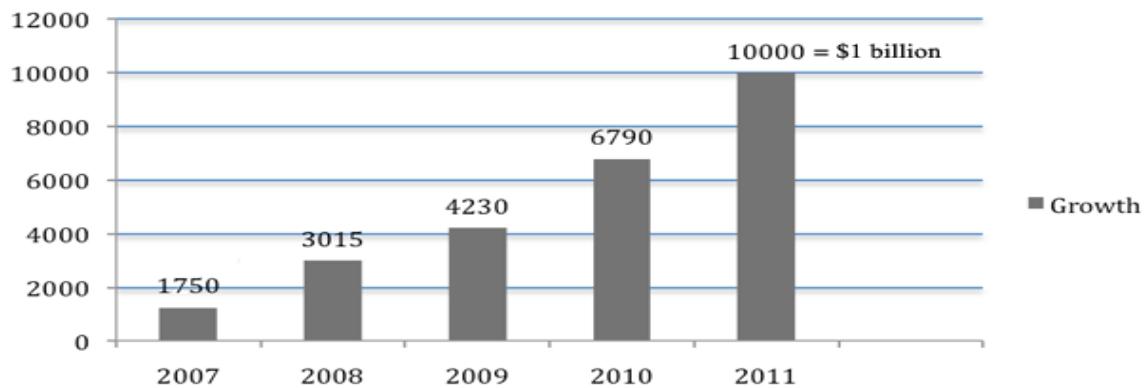
Our objective was to explore e-commerce associated concepts, infrastructure and socioeconomic, as they relate to China as a developing country with a government that has taken a special interest in technological capabilities of its population.



We knew from firsthand experience that, in spite of recently increased governmental efforts and investments, the telecommunication and ecommerce infrastructure was not as developed in China as they were in U.S., Europe, or as would be in any developing country, and we expected to find

technical and infrastructural limitations to be significant impediments. Therefore, we focused on the societal issues and specifically wanted to identify and explore the influence of culture on acceptance and use e-commerce in this developing country.

### Growth of E-commerce over the years (Figures in USD millions)



### III. working of e-commerce:-

#### 1. THE MERCHANT ACCOUNT

This really is your first step towards Ecommerce, unless you have chosen to go through a **payment** facility and are willing to give up a rather large portion of your sales in fees. The up-front costs of a merchant account can be hefty for a small business, but the long-term savings can be substantial. This is especially true if you are selling

big ticket items. For instance, on the sale of a \$300 product/service through a payment facility you could pay between \$20-\$45 dollars or **more** in fees. With your own merchant account it will probably cost you about \$9. With the typical fees and equipment for a merchant account startup costing about \$1,500, you can recoup that cost rather quickly. A merchant account comes with a merchant identification number. That is about all it gets you. In order to

process transactions you need either a terminal (the little box that you swipe your credit card through at retail outlets) or software that runs on your PC and will dial up the merchant via your modem, and then process the transaction and deposit the money into your bank account.

## 2. THE SHOPPING CART

If you are selling just one or two items on your site you won't have much need for a shopping cart. A site with a variety of products should use the shopping cart system because it's the easiest way for your customers to shop. The easier it is to shop, the more they will spend, which is exactly the psychology supermarkets use, and exactly how shoppers are similar whether in a supermarket or scanning through your website. And the nice thing

about electronic shopping carts is that the **wheels** never go square, and you don't have to send a clerk out after the store closes to round up all the carts that have been left scattered around the neighborhood. So shopping carts are good. But how will they work with your merchant account and the all-important ordering process? If the orders placed on your site are to be processed with the customer's credit card as a sale through your PC or swipe/terminal, then there doesn't have to be any compatibility between your cart and your merchant account. The two will work completely independently, each doing their part of the job. If, on the other hand, you would like all of your incoming orders to be automatically processed for you as the customer hits the submit button, you will need what is called "real time processing."



## 3. REAL-TIME PROCESSING

Almost every website company I talk to would like to have their orders processed for them (the vision of the owner of a website company turning on the PC and then stretching out in a hammock, watching the orders get processed on the screen, comes to mind). However, most web company people, upon learning the cost involved, take my advice to wait until they have a steady flow of orders coming in before they use real-time processing. If you're on a tight **budget** the extra fees involved in real-time processing might be better used to aggressively advertise and drive customer traffic to your site. Processing a few orders per day doesn't take very long and until you find it to be more time-consuming to process the orders yourself than you like, you are probably better off processing such orders manually. If you are starting with a healthy

budget and an aggressive promotion plan you will probably be better off implementing real-time processing right from the start. Changing order-processing methods can sometimes result in system hiccups and you don't want anything to slow down your momentum once you've started. You'll also save money, not having to set up your ordering system twice.

## 4. WEB HOSTING

The **web host** who is hosting your site can sometimes make a difference in how compatible your entire site and ordering system are with each other. I say "sometimes" because for those of us not using real-time processing, it doesn't matter who your host is or where your merchant account is located. They are independent of each other. Orders arrive and you process them. No interaction between the two is needed. Problems can arise when you bring a

shopping cart AND real-time processing into the picture. A shopping cart alone won't cause problems but the cart you choose to use must be compatible with your web host. Some carts are designed to run on certain types of servers, so when choosing one be cautious to make absolutely sure you can use it with your current host. Otherwise you had better be prepared to find a new one. If you want a shopping cart AND real-time processing the three (cart, processing, and host) must work together well. Your shopping cart must be compatible with your host and the cart must be compatible with your payment processor. With all the different shopping carts, hosts and payment facilities out there, putting together the right team can be a real challenge. This is especially true for the newbie who doesn't understand how it all works and how it all has to work together, or understands imperfectly but thinks he or she has it all under control when the decisions are finally made.

#### IV. E-commerce and competition

The changes brought about by E-commerce have the potential to significantly increase competition by increasing consumers' choice of products and traders. They also enable business to achieve significant efficiencies in their commercial operations as they move from high cost paper-based transactions to faster, lower cost electronic transactions. At the same time, care must be taken to ensure that the opportunities for competition in the dynamic new area of economic activity are not stifled by anti-competitive issues. While it is true that in rapidly changing high technology markets competition may be fierce but in some instance businesses may achieve significant market power, and use their position to stifle further competition. From a consumer protection prospective, there have also been a no. of international cases where unscrupulous traders have taken advantage of the internet as a medium to propagate old-fashioned scams. A theme which emerges in this area of competition policy is whether new technology alters the way in which market power issues should be analysed. The purpose of this paper is to analyse the type of potential issues that can emerge in E-commerce in developing country like India under the competition Act and role that Competition Commission of India can have in dealing with these issues.

#### V. Business Benefits

As we briefly discussed above, we identified various infrastructure and cultural characteristics as impediments to full-scale consumer participation in e-commerce in China. Among the most pressing infrastructure limitations were access to technology (computers, connectivity, and gateway to Internet), payment systems for enabling transfer of funds, and distribution systems for physical transfer of goods

and the primary cultural impediments were attitudes towards offsite transaction systems, level of trust in institutions and commercial activity, and attitudes towards credit based payment systems. Based on our findings, we propose the following business processes that can be employed to overcome some of these impediments on the short-run.

#### VI. Conclusions

Even though there have been earlier studies that have tried to understand and address issues related to e-commerce, there have been very few that have focused on the impact of culture and non-infrastructure related issues. We were partially able to address this deficiency by conducting primary research on development and acceptance of e-commerce in a developing country that has very unique cultural characteristics. Our findings show that, even though a developing country government may make the necessary investments in infrastructure (as China has done to a significant degree), unless the e-commerce industry participants understand and address the cultural issues that are unique to that country and relate to off-site transactional process, the large scale diffusion and success of such endeavors will be greatly impeded. Therefore, we would like to encourage other researchers to focus on different cultural environments (countries or regions, if there is homogeneity of culture) and, by understanding and dealing with these characteristics, enable a broader globalization and acceptance of e-commerce.

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