Issues and Influences of E-Commerce in Developing Countries

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ABSTRACT
Differing characteristics of local environments, both infrastructural and socio-economic, have created a significant level of variation in the acceptance and growth of e-commerce in different regions of the world. But now e-commerce influences the life of people & even business very much. As per the study of authors a research is done which is reflected in the proposed paper how the e-commerce demographically effects. The authors also try to discuss the various security issues related by doing trade electronically.

KEY WORDS
E-commerce, Security Issues, M-Commerce, EDI.

1. INTRODUCTION
Commerce is, quite simply, the exchange of goods and services for money and e-commerce is usually associated with buying and selling over the Internet, or conducting any transaction involving the transfer of ownership or rights to use goods or services through a computer-mediated network. There are many advantages of e-commerce for the business houses: In infrastructure requirements, Decentralized electronic markets and accessibility, Minimum number of intermediaries, less costs and more profits[1].

E-commerce has become one of the important mantras of branching out and marketing, in the business circle. Technological convergence, deep urban/rural penetration of personal computers, increasing computer literacy and training, liberalization of telecommunication policy and the availability of cheap Internet connectivity are factors that influenced both consumers as well as business behavior in favor of E-Commerce. It also pertains to “any form of business transaction in which the parties interact electronically rather than by physical exchanges or direct physical contact. E-commerce may take place within the borders of a country or across national boundaries. Though popular, this definition is not comprehensive enough to capture recent developments in this new and revolutionary business phenomenon International Data Corp (IDC) estimates the value of global e-commerce in 2000 at US$350.38 billion. This is projected to climb to as high as US$3.14 trillion by 2004. IDC also predicts an increase in Asia’s percentage share in worldwide e-commerce revenue from 5% in 2000 to 10% in 2004. Profitable through online sales. Dell Computers is a prime example.

The general governance issues raised by e-commerce are three-fold:

In addition to these general e-commerce issues, specific aspects of a number of the other issues that are listed in the “Inventory of Public Policy Issues” are part of the general issue of ecommerce.

These related issues include:
- Dispute resolution
- Competition policy
- Consumer, user protection
- Privacy
- Spam
- Cyber crime
- Security of network and information systems
- Electronic authentication
- Unlawful content
- Intellectual property rights
- Applicable jurisdiction
- Cross border coordination and cross border enforcement – which is a particularly important issue, given the differences between national laws and regulations among countries.
- Taxation of e-commerce
- Trade
- Exemption of ISPs for third party liability.

As well, from a development perspective the possibility of engaging in and benefiting from ecommerce within and between countries depends on the resolution of a number of fundamental, underlying issues that are listed in the Inventory. These include:
- Telecommunications infrastructure.
- Broadband access.
- Internet leased line costs
- Peering and interconnection.
- Affordable and universal access
- Education, human capacity building.
- Multilingualization of Internet naming systems
- Cultural and linguistic diversity
- Freedom of information and media.
Influences on Diffusion of E-Commerce

1) Business-to-Business E-Commerce: B2B also known as e-biz, is the exchange of products, services, or information between business rather than between business and consumers. B2B e-commerce is simply defined as e-commerce between companies. This is the type of e-commerce that deals with relationships between and among businesses. About 80% of e-commerce is of this type, and most experts predict that B2B e-commerce will continue to grow faster than the B2C segment.

Advantages of B2B are:
1) E-Commerce can lead to reduction of transaction costs,
2) E-Commerce can lead to improvement of product quality,
3) It can bring speed to the transactions,
4) Competition is another factor which forces business people to adopt E-commerce. A company may go for E-Commerce just because its competitors do so.

The B2B market has two primary components: e-structure and e-markets.

E-structure is the architecture of B2B, primarily consisting of the following:
- Logistics - transportation, warehousing and distribution (e.g., Procter and Gamble);
- Application service providers - deployment, hosting and management of packaged software from a central facility (e.g., Oracle and Linkshare);
- Outsourcing of functions in the process of e-commerce, such as Web-hosting, security and customer care solutions (e.g., outsourcing providers such as eShare, NetSales, iXL Enterprises and Universal Access);
- Auction solutions software for the operation and maintenance of real-time auctions in the Internet (e.g., Moai Technologies and OpenSite Technologies);
- Content management software for the facilitation of Web site content management and delivery (e.g., Interwoven and ProcureNet);

2) Business-to-Consumer E-Commerce: Business-to-consumer e-commerce, or commerce between companies and consumers, involves customers gathering information; purchasing physical goods (i.e., tangibles such as books or consumer products) or information goods (or goods of electronic material or digitized content, such as software, or e-books); and, for information goods, receiving products over an electronic network. It is the second largest and the earliest form of e-commerce.

1. Benefits of B2C E-Commerce for the consumers
1) B2C E-Commerce is convenient to the consumers. The consumers can buy any goods and services from their house itself without going to the market and make payment through various methods including online payment using credit card.

2) E-Commerce allows consumers to purchase customized and personalized products by forming a one-to-one relationship with the merchant.

3) The consumer will be able to even purchase goods and services from a foreign market without being physically present there.

1) E-Commerce can improve their ability to reach even to a consumer situated in a remote and distant corner of the world.

2) It can bring speed to the transactions.

3) It can improve customer service and care.

3) Business-to-Government E-Commerce: The E-Commerce between business and government, which is usually, abbreviated as B2G, Business-to-government e-commerce or B2G is generally defined as commerce between companies and the public sector. It refers to the use of the Internet for public procurement, licensing procedures, and other government-related operations. This kind of e-commerce has two features: first, the public sector assumes a pilot/leading role in establishing e-commerce; and second, it is assumed that the public sector has the greatest need for making its procurement system more effective. Web-based purchasing policies increase the transparency of the procurement process (and reduces the risk of irregularities). To date, however, the size of the B2G ecommerce market as a component of total e-commerce is insignificant, as government e-procurement systems remain undeveloped.

4) Consumer-to-Consumer E-Commerce or People-to-People E-Commerce: Consumer-to-consumer e-commerce or C2C is simply commerce between private individuals or consumers. This type of e-commerce is characterized by the growth of electronic marketplaces and online auctions,

- Web-based commerce enablers (e.g., Commerce One, a browser-based, XML-enabled purchasing automation software).

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particularly in vertical industries where firms/businesses can bid for what they want from among multiple suppliers. It perhaps has the greatest potential for developing new markets.

5) **Intra-business E-Commerce.** A type of Electronic transactions within the organization can be expressed as intra-business type of e-commerce. Even though all of these types of electronic commerce have been growing rapidly, the two most popular and important types of E-Commerce are B2B and B2C E-Commerce.

2.1 EDI: Electronic Data Interchange, the transfer of data between companies using networks, such as the internet. The concept has been around since 1970s and has traditionally been used to automate buyer-seller transactions been used to automate buyer-seller transactions such as invoices and purchase orders.

2.2 Primary processes are enhanced in e-business:

1. **Production processes,** which include procurement, ordering and replenishment of stocks; processing of payments; electronic links with suppliers; and production control processes, among others;
2. **Customer-focused processes,** which include promotional and marketing efforts, selling over the Internet, processing of customers’ purchase orders and payments, and customer support, among others; and
3. **Internal management processes,** which include employee services, training, internal information-sharing, video-conferencing, and recruiting. Electronic applications enhance information flow between production and sales forces to improve sales force productivity. Workgroup communications and electronic publishing of internal business information are likewise made more efficient.

3. **M-COMMERCE**

M-commerce (mobile commerce) is the buying and selling of goods and services through wireless technology—i.e., handheld devices such as cellular telephones and personal digital assistants (PDAs). Japan is seen as a global leader in m-commerce. As content delivery over wireless devices becomes faster, more secure, and scalable, some believe that m-commerce will surpass wire line e-commerce as the method of choice for digital commerce transactions. This may well be true for the Asia-Pacific where there are more mobile phone users than there are Internet users.

Industries affected by m-commerce include:

- **Financial services,** including mobile banking (when customers use their handheld devices to access their accounts and pay their bills), as well as brokerage services (in which stock quotes can be displayed and trading conducted from the same handheld device);
- **Telecommunications,** in which service changes, bill payment and account reviews can all be conducted from the same handheld device;
- **Service/retail,** as consumers are given the ability to place and pay for orders on-the-fly; and
- **Information services,** which include the delivery of entertainment, financial news, sports figures and traffic updates to a single mobile device.17 Forrester Research predicts US$3.4 billion sales closed using PDA and cell phones by 2005.

3. **METHODOLOGY**

We develop a 15-question questionnaire, developed in English. It contained questions designed to collect information on demographics, Internet usage and e-commerce activities (frequency of commerce and type of purchase, transaction experience and perception of e-commerce in India). We selected 252 individuals that would be considered to be “early adopters”. The study participants resided and worked in different regions and for different types of organizations and had different educational levels, professions, and gender.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Education</th>
<th>Age</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>Female</td>
<td>Professional Degree</td>
<td>Graduate</td>
</tr>
<tr>
<td>60%</td>
<td>40%</td>
<td>65%</td>
<td>35%</td>
</tr>
</tbody>
</table>

Table 1: Study of e-commerce Influence Demographically.

From the table it was reflected that if look towards gender then it was seen that male percentage for doing e-commerce is more as compare to female having professional degrees. And mostly are of age between 25-35 years. DE (Domestic Enterprises including Private sectors) are more influenced by e-commerce and do business electronically.

![Figure 2: Trust Related Issues for Corporate Acceptance of Electronic Commerce.](image-url)
Figure 2 Shows growth of e-commerce in corporate sector and figure reflected that 28% payment affected by new technologies and differences between economies, 17% fear that technology infrastructure is not robust enough to prevent attacks etc, only 1% don’t know about the e-commerce and 1% are others who does not uses the e-commerce.

2) Issues relating to Trust: The various trust related issues are privacy, security, consumer protection and content regulation.

3) Issues relating to Ground Rules: Issues relating to ground rules are issues of taxation, intellectual property rights, commercial laws including contract law, international trade and standards are categorized as ground rules-related issues.

4.1 Status of e banking in developing countries.
E-banking in developing countries is in the early stages of development. Most banking in developing countries is still done the conventional way. However, there is an increasing growth of online banking, indicating a promising future for online banking in these countries. Below is a broad picture of e banking in three ASEAN countries.

4.2 Trends and prospects for e banking in these countries.
There is a potential for increased uptake of e banking in Asia. Respondents of the McKinsey survey gave the following indications:
1. Lead users: 38% of respondents indicated their intention to open an online account in the near future. These lead users undertake one-third more transactions a month than do other users, and they tend to employ all banking channels more often.
2. Followers: An additional 20% showed an inclination to eventually open an online account, if their primary institution were to offer it and if there would be no additional bank charges.
3. Rejecters: 42% (compared to the aggregate figure of 58% for lead users and followers) indicated no interest in or an aversion to Internet banking. It is important to note that these respondents also preferred consolidation and simplicity, i.e., owning fewer banking products and dealing with fewer financial institutions. Less than 13% of the lead users and followers indicated some interest in conducting complex activities over the Internet, such as trading securities or applying for insurance, credit cards, and loans. About a third of lead users and followers showed an inclination to undertake only the basic banking functions, like ascertaining account balances and transferring money between accounts, over the Internet [3].

4.3 Favorable policy environment for e-commerce:
Among the public policy issues in electronic commerce that governments should take heed of are:
- “bridging the digital divide” or promoting access to inexpensive and easy access to information networks;
- Legal recognition of e-commerce transactions;
- Consumer protection from fraud;
- Protection of consumers’ right to privacy;
- Legal protection against cracking (or unauthorized access to computer systems); and
- Protection of intellectual property.
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Measures to address these issues must be included in any country’s policy and legal framework for e-commerce. It is important that governments adopt policies, laws and incentives that focus on promoting trust and confidence among e-commerce participants and developing a national framework that is compatible with international norms on e-commerce (covering for instance, contract enforcement, consumer protection, liability assignment, privacy protection, intellectual property rights, cross-border trade, and improvement of delivery infrastructure, among others) [4].

4.4 Usage of e-commerce by government:

Government can use e-commerce in the following ways:

- **E-procurement.** Government agencies should be able to trade electronically with all suppliers using open standards-through ‘agency enablement’ programs, ‘supplier enablement’ programs, and e-procurement information systems.
- **Customs clearance.** With the computerization of customs processes and operations (i.e., electronic submission, processing and electronic payment; and automated systems for data entry to integrate customs tables, codes and re-assessment), one can expect more predictable and more precise information on clearance time and delivery shipments, and increased legitimate revenues.
- **Tax administration.** This includes a system for electronic processing and transmission of tax return information, online issuances of tax clearances, permits, and licenses, and an electronic process registration of businesses and new taxpayers, among others. This means that if government is unable to engage in e-procurement, secure records online, or have customs fees remitted electronically, then the private sector will also have difficulties in e-commerce uptake. Virtually, the benefits from e-commerce accrue to the government, as the experiences of some countries reflect.

4.5 SECURITY ISSUES IN E-COMMERCE

Unfortunately, the existing legal systems in most developing countries are not sufficient to protect those engaged in e-commerce. For instance, with respect to contracts, existing laws were conceived at a time when the word “writing,” “document” and “signature” referred to things in paper form. On the other hand, in today’s electronic business transactions paper is not used for record-keeping or entering into contracts. Another important and common legal issue faced by many developing countries is uncertainty regarding whether the courts will accept electronic contracts or documents and/or electronic signatures as evidence. This gap in existing legal systems has caused the emergence of at least two divergent views: one bordering on the conservative interpretation of the word “document” as to exclude non-paper-based ones; and the other involving a liberal construction, which allows electronic counterparts of documents.

In the ASEAN region, only three countries-Singapore (Singapore Electronic Transactions Act), Malaysia (Cyberlaws), and the Philippines (Philippine E-commerce Act)-have a legal framework for e-commerce. These frameworks provide for the legal recognition of electronic documents and signatures and penalize common crimes and offenses committed in cyberspace [5].

SOME RELEVANT POLICY ISSUES SHOULD BE ADDRESSED.

Other policy issues concern basic prerequisites of infrastructure for successful e-commerce, as follows:

1. **Telecoms pricing and performance:**

   One of the aims of telecommunications policy and legislation should be to ensure that the public has access to basic telecommunications services at a reasonable cost. The goal should ultimately be universal access or widespread access to reliable information and communication services at a reasonable cost and its availability at a reasonable distance. To enhance the quality of telecommunications services, policies should encourage:

   - **Open access.** which refers to the absence of non-competitive practices by network providers;
   - **Open architecture.** which pertains to the design of a system that facilitates interconnection among different systems and services currently and as they develop over time; and
   - **Flexible access.** which pertains to interconnected and interoperable networks of telecommunications, broadcasting, and electronic publishing, where the format will be digital and the bandwidth [6].

2. **Quality and speed of distribution logistics (i.e., roads and bridges).**

   Roads and bridges, especially in developing countries, still form part of the e-commerce infrastructure. Very few goods are delivered over the information infrastructure or the Internet (the exceptions are music and software). Most of the goods purchased over the Internet are still delivered the conventional way (i.e., physical delivery). Hence, poor roads and bridges,
inefficient transport systems, coupled with the high cost of international parcel services and bureaucratic customs clearance processes, are major obstacles in the uptake of e-commerce in developing countries. Government should therefore create a policy environment that will:

- encourage investments in the national physical and transport infrastructure; and
- provide for electronic customs clearance processing to streamline the bureaucracy and allow for more transparent, predictable and efficient customs operations. Both of these will contribute to the reduction of distribution and logistics costs [7].

CONCLUSION

After detailed analyzing and studying of the effects and benefits of incorporating an e-commerce solution to an existing business, it is clear that an e-commerce solution will benefit the business in every aspect. The implementation of an e-commerce solution will generate a brand new revenue stream, expand the market exposure, and decrease the operation cost. 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. Therefore, we would like to encourage other researchers to focus on different culture environments and by, understanding and dealing with these characteristics, enable a broader globalization and acceptance of e-commerce.

FUTURE SCOPE

The thrust is on focusing the impact of culture and non-infrastructure related issues, which the authors trying to cover in our future work.

REFERENCES