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Opportunities and challenges of e-commerce in India

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Abstract
The advent of the internet and the Worldwide Web has transformed the way business organisations function. There is a paradigm shift in the way the business organisations conduct their marketing activities. The coverage of the Internet through the various segments geographically, demographically, sector-wise and the like have opened up the potential for the marketers to change the way they transact and interact. The smartphones have surpassed the limitations of physical space, time and opportunity costs to the consumers. The present study is more relevant where the marketers are looking at the broader access in the market and consumers are looking at convenience. The study traverses through various aspects of E-Commerce.

Keywords: Trading, on-line, technology

Introduction
Marketing has pretty much been around forever in one form or another. Since the day when humans first started trading whatever it was that they first traded, marketing was there. Marketing was the stories they used to convince other humans to trade. Humans have come a long way since then, and marketing has too. The methods of marketing have changed and improved, and we have become a lot more efficient at telling our stories and getting our marketing messages out there. E Marketing is the product of the meeting between modern communication technologies and the age-old marketing principles that humans have always applied.

The impact of electronic commerce on business
E-Commerce and E-Business are not solely the Internet, websites or dot com companies. It is about a new business concept that incorporates all previous business management and economic concepts. As such, E-Business and E-Commerce impact on many areas of business and disciplines of business management studies.

1. **Management Information Systems:** Analysis, design and implementation of e-business systems within an organization; issues of integration of front-end and back-end systems.
2. **Human Resource Management:** Issues of on-line recruiting, home working and 'Intrapreneurs' works on a project by project basis replacing permanent employees.
3. **Finance and Accounting:** On-line banking; issues of transaction costs; accounting and auditing implications where 'intangible' assets and human capital must be tangibly valued in an increasingly knowledge based economy.
4. **Economics:** The impact of e-commerce on local and global economies; understanding the concepts of a digital and knowledge-based economy and how this fits into economic theory.
5. **Production and Operations Management:** The impact of on-line processing has led to reduced cycle times. It takes seconds to deliver digitized products and services electronically; similarly the time for processing orders can be reduced by more than 90 per cent from days to minutes. Production systems are integrated with finance marketing and other functional systems as well as with business partners and customers.
6. **Marketing:** Issues of on-line advertising, marketing strategies and consumer behavior and cultures. One of the areas in which it impacts particularly is direct marketing. In the past this was mainly door-to door, home parties and mail order using catalogues or leaflets.

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7. **Computer Sciences:** Development of different network and computing technologies and languages to support e-commerce and e-business, for example linking front and back office legacy systems with the 'web based' technology.

8. **Business Law and Ethics:** The different legal and ethical issues that have arisen as a result of a global 'virtual' market issues such as copy right laws, privacy of customer information, legality of electronic contracts etc. .

Economic Drivers of E-commerce

Five broad themes have emerged as important for understanding the economic and social impact of electronic commerce:

1. Electronic commerce transforms the marketplace

E-commerce will change the way business is conducted: traditional intermediary functions will be replaced, new products and markets will be developed, and new and far closer relationships will be created between business and consumers. It will change the organisation of work: new channels of knowledge diffusion and human interactivity in the workplace will be opened, more flexibility and adaptability will be needed, and workers' functions and skills will be redefined.

2. Electronic commerce has a catalytic effect

E-commerce will serve to accelerate and diffuse more widely changes that are already under way in the economy, such as the reform of regulations, the establishment of electronic links between businesses (EDI), the globalisation of economic activity, and the demand for higher-skilled workers. Likewise, many sectoral trends already under way, such as electronic banking, direct booking of travel, and one-to-one marketing, will be accelerated because of electronic commerce.

3. E-commerce over the Internet vastly increases interactivity in the economy

These linkages now extend down to small businesses and households and reach out to the world at large. Access will shift away from relatively expensive personal computers to cheap and easy-to-use TVs and telephones to devices yet to be invented. People will increasingly have the ability to communicate and transact business anywhere, anytime. This will have a profound impact, not the least of which will be the erosion of economic and geographic boundaries.

4. Openness is an underlying technical and philosophical tenet of the expansion of electronic commerce

The widespread adoption of the Internet as a platform for business is due to its non-proprietary standards and open nature as well as to the huge industry that has evolved to support it. The economic power that stems from joining a large network will help to ensure that new standards remain open. More importantly, openness has emerged as a strategy, with many of the most successful e-commerce ventures granting business partners and consumers unparalleled access to their inner workings, databases, and personnel. This has led to a shift in the role of consumers, who are increasingly implicated as partners in product design and creation. An expectation of openness is building

on the part of consumers/ citizens, which will cause transformations, for better (*e.g.* increased transparency, competition) or for worse (*e.g.* potential invasion of privacy), in the economy and society.

5. Electronic commerce alters the relative importance of time

Many of the routines that help define the "look and feel" of the economy and society are a function of time: mass production is the fastest way of producing at the lowest cost; one's community tends to be geographically determined because time is a determinant of proximity. E-commerce is reducing the importance of time by speeding up production cycles, allowing firms to operate in close co-ordination and enabling consumers to conduct transactions around the clock. As the role of time changes, so will the structure of business and social activities, causing potentially large impacts.

E-Commerce Applications
1. E-Marketing

E-Marketing also known as Internet marketing, online marketing and Web marketing. It is the marketing of products or services over the internet. It is consider to be broad in scope because not refers to marketing on the internet but also done in Email and wireless media. E-Marketing ties together the creative and technical aspects of the internet, including design development, advertising and sales. Internet marketing is associated with several business models that is B2C, B2B, C2C. Internet marketing is inexpensive when examine the ratio of cost to the reach of the target.

2. E-Advertising

It is also known as online advertising it is a form of promotion that uses internet and World Wide Web to deliver marketing messages to attracts customers. Example: Banner ads, Social network advertising, online classified advertising etc. The growth of these particular media attracts the attention of advertisers as a more productive source to bring in consumers. An online advertisement also offers various forms of animation. The term online advertisement comprises all sorts of banner advertisement, email advertising, in game advertising and key soon.

3. E-Banking or Internet Banking

Means any user with a personal computer and browser can get connected to his banks, website to perform any of the banking functions. In internet banking system the bank has a centralized data base i.e., web-enabled. Example for E-Banking is ATM.

Services through E-Banking
- Bill payment service.
- Fund Transfer.
- Investing through internet Banking.
- Shopping.

4. Mobile-Commerce: Mobile Commerce also known as M-Commerce is the ability to conduct, commerce as a mobile device, such as mobile phone.

Services Are
1. Mobile ticketing

2. Mobile Vouchers, Coupons and
3. Mobile contract purchase and delivery mainly consumes of the sale of ring tones, wallpapers and games of mobile phones.

5. E-Learning
E-Learning comprises all forms of electronically supported learning and teaching's-Learning specially the computer and network skills and knowledge's-Learning applications include web-based learning, computer-based learning. Content is delivered via. The internet, intranet, audio, or video tape, satellite TV, and ED-ROM. Computer-Based Learning refers to the use of computers as a key component of the education environment.

6. Online shopping
Online shopping is the process whereby consumer directly buys goods or services from a sell in real time, without an intermediary services over the internet. Online shoppers commonly use credit card to make payments, however some systems enable users to create accounts and pay by alternative means, such as
1. Billing to mobile phones and landline.
2. Cheque.
3. Postal money order.

7. Search engine
A web search engine is designed to search for information on the WWW and FTP servers. The search results are generally presented in list of result and are often called hits. The information may consist of web pages, images, information, and other types of files.

8. Online Trading
An online trading community provides participants with a structured method for trading bantering (exchanging goods with goods) or selling goods and services. These communities often have forums and chat rooms, designed to facilitate communication between the members.

9. Entertainment
The conventional media that have been used for entertainment are
1. Books/magazines.
2. Radio.
3. Television/films.
4. Video games.

E-Commerce WITH the "5-C-Model"
Another approach to define and explain, with E-Commerce is, comes from the so-called 5-C-model (Zwass 2014). It defines E-Commerce by five activity dornains denominations start with the letter "c"

Commerce
- In the electronic marketplaces there is a matching of customers and suppliers, an establishing of the transaction terms, and the facilitation of exchange transactions.
- With the broad move to the Wed-enable enterprise systems with relatively uniform capabilities a compares to the legacy system, a universal supply-chain linkage has been created.

Collaboration
- The web is a vast nexus, or network, of relationships among firms and individuals.
- More or less formal collaborations are created or emerge on the Web to bring together individuals engaged in knowledge work in a manner limits the constraints of space, time, national boundaries and organization affiliation.

Communication
- As an interactive medium, the Web has given rise to a multiplicity of media products.
- This universal medium has become a forum for self-expression (as in blogs) and self-presentation (as, for an example, in Polyvore: www.polyvore.come).
- The rapidly growing M. Commerce (see below) enables connectivity in context, with location-sensitive products and advertising.
- In the communication domain, the Web also service as a distribution channel for digital products.

Connection
- Common software development platforms, many of the open-source domains, enable a wide spectrum of firm to avail themselves of the benefits of the already developed software, which is, moreover, compatible with that of their trading and collaborating partners.
- The internet, as a network of networks that is easy to join and out of which it is relatively easy to carve out virtual private networks, is the universal telecommunications network, now widely expanding in the mobile domain.

Technological Elements
In this chapter we will discuss subjects

E-Commerce Business models based on strategies
There are mainly 4 types of business models based on transaction party.

1. Business-to-Consumer (B2C)
In a Business-to-Consumer E-commerce environment, companies sell their online goods to consumers who are the end users of their products or services. Usually, B2C E-commerce web shops have an open access for any visitor, meaning that there is no need for a person to login in order to make any product related inquiry.
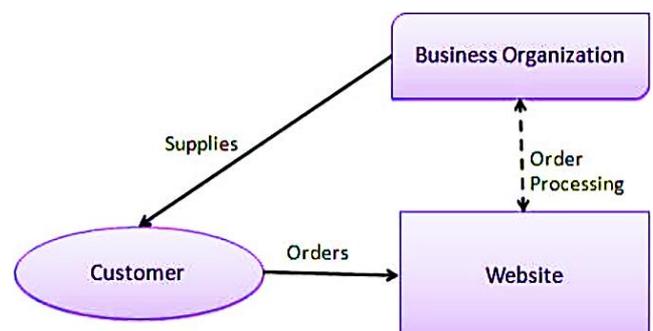

Fig 1: Business-to-Consumer (B2C)

2. Business-to-Business (B2B)
In a Business-to-Business E-commerce environment,

companies sell their online goods to other companies without being engaged in sales to consumers. In most B2B E-commerce environments entering the web shop will require a log in. B2B web shop usually contains customer-specific specific assortments and customer-specific discounts. It includes the IOS transactions and electronic market transactions between organizations.

•IOS Transactions means Inter Organizational Information Systems refers to flow of standard transactions information between business partners, such as placing orders, building or paying. Pricing, customer
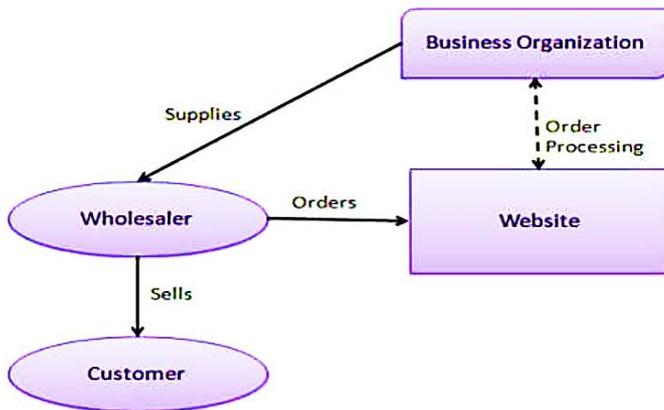

Fig 2: Business-to-Business (B2B)

3. Consumer-to-Business (C2B)

In a Consumer-to-Business E-commerce environment, consumers usually post their products or services online on which companies can post their bids. A consumer reviews the bids and selects the company that meets his price expectations.
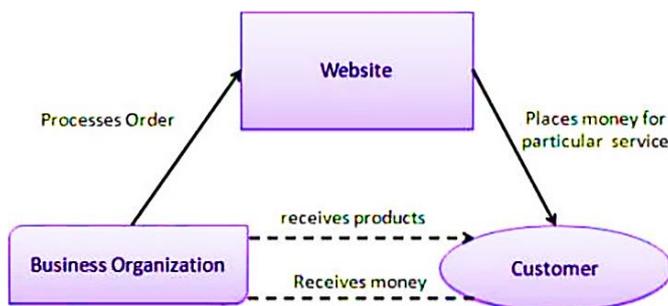

Fig 3: Consumer-to-Business (C2B)

4. Consumer-to-Consumer (C2C)

In a Consumer-to-Consumer E-commerce environment consumers sell their online goods to other consumers. A well-known example is eBay.
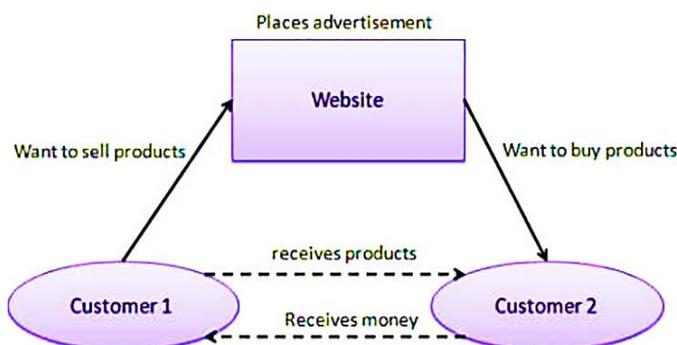

Fig 4: Consumer-to-Consumer (C2C)

Information technology risks of electronic business

According to the statement of the International Federation of Accountants (IFAC) IT risks are classified as follows:

1. IT infrastructure risks relating to the suitability of the technology used for processing information. Examples of these risks are as follows:
- Incorrect assessments of physical security from theft, unauthorized access or improper disclosure of information does not prevent,
- High vulnerability to heat, fire and other physical hazards,
- Inadequate or incorrect design process them, and
- Backup processes are not enough.

2. Risks related to IT applications such as:
- Bugs and errors in the use of IT
    - Uneven or unregistered changes in the program. Inadequate and inappropriate design commands
    - Processing and output controls in the use of IT
- Processes to ensure adequate security software.

3. Risks related to IT business processes such as:
- Transparency of data
- The combination of inadequate systems.

Determine the distance between the control processes in the sub-processes **.**

E-Commerce Advantages

The internet might be the single most important facet of modern society. It plays a primary role in everything from political discourse and higher education to the way we conduct ourselves and our businesses. It's no wonder, then, that switching to an e-commerce model comes with significant advantages.

E-commerce eliminates the need for physical stores and allows businesses to expand their customer base

On top of eliminating the possibility of long lines, e-commerce sites offer a huge advantage to both shoppers and stores that aren't located in major urban areas. Even if you are located in a big city, e-commerce opens up new markets, allowing you to develop a new business model geared toward your expanding consumer base. Many businesses have found particular success in developing good e-commerce Search Engine Optimization, which drives more traffic to the site.

Your business can also save money on rent, utilities, maintenance, and other costs associated with physical stores

Your e-commerce store can essentially remain open 24/7 without hiring employees to watch over the store and protect items. Since you aren't confined to a set amount of shelf space, there is no limit to the number of items that can be sold online, and your store's stock can expand exponentially. Physical products will still have to be stored somewhere, but storage spaces are often cheaper than retail spaces, and you won't have to worry about factors like foot traffic and parking spaces.

Digital products can be sold online with little-to-no overhead cost

Thanks to e-commerce, consumers can purchase music,

videos, or books instantaneously. Stores can now sell unlimited copies of these digital items, without having to worry about where they'll store the inventory.

E-commerce also allows your business to scale up easier than physical retailers
When a brick-and-mortar store grows, it needs to consider how it will serve more customers in the same small space. More employees are needed to expedite check-outs, more of the floor gets dedicated to forming lines, shoppers feel more crowded as customer base and inventory grows. Of course, logistics always get tougher as a business grows, no matter how the business operates. With the right choice of a third-party logistics provider, however, e-commerce companies can manage this growth without worrying about the physical store aspects.

Keeping in contact with customers is often easier for e-commerce businesses
Since the e-commerce merchant captures contact information in the form of email, sending out both automated and customized emails is simple. Let customers know about a sale, promote a new product, or just check in with customers for a personal touch-all with minimal effort. Additionally, web tools like cookies allow for superior store customization and consumer behavior analysis.

The benefits consumers enjoy are shared by e-commerce companies when it comes to the supply chain
Consumers like online shopping because they don't have to deal with cash, worry about schedules, or wait in long lines. Those benefits also apply to entire supply chains interlinked with business-to-business e-commerce systems.
Procurement becomes faster, transparent, and there's no need to handle currency notes or cash. The result is cheaper, easier transactions with fewer opportunities for accounting errors.

Finally, e-commerce allows your business to track logistics, which is key to a successful e-commerce company
Having everything digitized makes it easier to automatically collect data and crunch numbers. While you can benefit from knowing what's selling best, you can also afford to take more risks on low-volume goods. The conventional retail strategy focuses on stocking fast-moving goods, but the economics of e-commerce permits slow-moving and even obsolete products to be included in the catalog. Storage is less expensive, and displaying the product is as easy as adding another item page to your site.

Major Challenges of E-Commerce in India

Fig 5: Major Challenges of E-Commerce in India

With around 1.25 billion populations out of which internet penetration is only 19% India has enormous opportunities for commerce. Besides being such a big marketplace (attracting global ecommerce players and investors) it has own challenges.

1. High Return Rates: Though the trend is changing still e-commerce players are experiencing heavy product return rates, which are incurring losses for them, as reverse logistics presents unique challenges.

2. Consumers prefer COD (Cash on delivery): Due to trust deficiency, lots of people don't prefer to use a credit/debit card or internet banking methods for the transaction, rather they opt for "Cash on Delivery" which is risky and leads less business margin.

3. Payment gateways Inefficiency: Consumers usually experience a high failure rate of payment gateways. Usually, once a customer does not reattempt after a transaction failure. It leads to the loss of businesses.

4. Quality Internet penetration: India has an internet penetration of about 19% in comparison to countries like the US & UK where it is up to 90%. However, that is not the concern for e-Commerce players it is prospecting, the major challenge is about the quality of connectivity. The speed and frequent drops cause frustration and restrict the user from using e-Commerce for their major source of buying.

5. Feature phones still rule the roost: Majority of the population resides in villages and rural areas where the majority of residents use feature phones, not smartphones. However, this shift is being changed and with a steady rate it is growing up.

6. Reliable Logistic and Supply Chain: India is a large country which has thousands of cities and areas which are not easily accessible. Though the Metropolitan cities and other major urban centers have not to issue with the supply chain, the attraction lies in market size due to its large population. Through e-Commerce consumers want to buy a product is not just an efficient manner but also expect to get it delivered at their place in the least possible time.

7. Computer/Internet literacy and effective reach: India has a poor reach of a personal computer (PC) which is very low as 3.5/1000 of the population, compared to Five Hundred/1000 US cause of digital illiteracy. The internet is still accessible by half of the internet user population through PCs with the help of telephone lines. Given the penetration of telephone only 2.1 percent of the population, e-commerce remains far away from the common man. It is difficult for e-commerce to reach to 1,000 million populations spread over 37 million households in 6, 04,374 odd villages and 5,000 towns and cities. Besides, both the costs of PCs and internet access in India are quite high.

8. Tax norms and compliances: Yet a lot of initiatives have to be taken by the government to simplify complex tax norms which have different rates at different states.

9. Overfunded competitors are driving up the cost of customer acquisition: The vibrancy in the Indian startup ecosystem over the past couple of years has channeled a lot of investment into the e-Commerce sector. The long-term prospects for e-Commerce Companies & players are so exciting that some investors are willing to spend irrationally high amounts of money to acquire market share today. Naturally, the Indian consumer is spoiled for choice. However, this trend has reversed as investors are getting worried about slipping further down a slippery slope, and I expect more rational behavior in 2014.

10. Too many Players, startups have to struggle: Due to physical/infrastructure/technology and customer acquisition has challenged a startup doesn't just need to raise huge amounts of capital rather they have to cultivate new ideas to gain popularity and win trust. Also, there are big chances that some big players who are currently brick and mortar business and have a huge support of infrastructure, people, and warehouses can use their money to evangelize the market.

Conclusion
The shift from the brick and mortar stores to virtual businesses is definitely a welcome change in the digital era. The security issues because of the e-commerce activities are because of the unprecedented swift expansion of the business houses and marketers to e-commerce. No doubt that the Electronic commerce is pacing up to be a key enabler and the critical aspect of the economy's growth and development. The security issues are getting addressed regulation of the transactions is to be developed to boost consumer confidence.

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