Chapter- 5

Identifying The Factors Harnessing The Growth of B2C transactions
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Introduction:
The emerging Internet economy is made up of a large collection of global Internet Protocol (IP) based networks, applications, electronic markets, producers, consumers and intermediaries (Barua et al. (1999a)). This economy is growing rapidly by all accounts, and two recent studies by Barua et al. (1999a, 1999b) suggest that this economy exceeded $500 billion in revenues in 1999, representing a 68% growth from 1998. The studies also find that the Internet is creating unprecedented opportunities for new businesses, and that one out of every three companies surveyed did not exist prior to 1996 (Barua et al., 1999b). While these numbers point to a formidable size and dramatic growth of business on the Internet, big is not necessarily better (Barua, Whinston and Yin, 2000).

The initial euphoria about the growth of E-commerce was great in India. Projections were very high and so was the expectation. It was presumed that by the year 2000 companies would turn into digital nervous systems and most commercial transactions would be online. Ries & Ries (2000) has forecasted that very soon – 'paper catalogues will be outdated', 'paper directories will be doomed', and 'parcel delivery business will soar'. But at what pace is the present business going on, on the net? The business picture is not as glitzy as the forecasts are, but on the contrary the balance sheets of the online traders show a very gloomy picture. The Fortune E-50 companies is headed by
Amazon.com, the most talked about company in today's business arena. But still the company has not made any profit till date (according to their balance sheet). And in fact in the list of E 50, only those companies show profit that have a brick and mortar existence also other than their presence in the web. But nevertheless, research has shown that online trading has many advantages over traditional trading.

Steinfield et al (1999a, 1999b) has found out that online trading has the following advantages- 'access to a wider potential market', 'lower set up costs because a building or rented place is not required, and they may operate with less or no inventory'. 'Better economies of scale arising from a large customer base and consequent volume discount on inputs'. Ability to set up facilities near important factors of production, which would not be available to an 'offline' physical business in a given community. As illustrated by Benjamin and Wigand (1995), in the high-quality shirts market, it would be possible to reduce the retail price by almost 62% if wholesalers and retailers could be eliminated from the traditional value chain. But even with so many advantages the on transaction is yet to take off.

Here in this study we wish to find out some of the factors that are hindering the rapid growth of online transaction. On our brief literature survey, we failed to find out any substantial work on the constraints of E-commerce. This part has remained untouched by academicians and management practitioners. However, there are some observation made by a few but those are fleeting part observation rather than concrete study. Here we have taken special
care to find out the major problems that are acting as roadblocks to
the growth of online transaction in India. But would like to point
out that the list of hindrances present here are not exhaustive, but
surely they are most important ones, that need immediate
attention.

**TRUST AND SECURITY PROBLEM:**

The Internet is the engine driving the information age and the future of
commerce, a future rich with opportunity and challenge. Companies can
no longer ignore the impact of e-business if they hope to remain
competitive and successful.

Yet many businesses are reluctant to fully embrace e-commerce. They
feel uncomfortable in this new environment, and they are concerned that
better safeguards are required to protect against emerging, unfamiliar
risks.

Even firms currently participating in Internet commerce exhibit a
fundamental lack of trust in many e-business processes. They worry
about the confidentiality and authenticity of transactions conducted on­
line, and they have serious concerns about the fate of personal and
confidential information once it enters cyberspace.

As e-business transactions multiply exponentially, these concerns must
be addressed. Business-to-business e-commerce is expected to exceed
$6.3 trillion (in 2004), up from $43 billion in 1998. Business-to­
consumer e-commerce activity will exceed $454 billion in the same
period, up from $8 billion in 1998. But despite these tremendous growth
projections, the full potential of e-business will only materialise if
business partners truly trust e-commerce transactions.

What is lacking is trust. But what is trust? Though it sounds too
philosophical to define such an abstract term as 'Trust', but still we may
say, trust is the glue that holds an orderly, civilised society together. In
business organisations, trust binds people together, making them strong and effective. Without trust, no company can hope to achieve excellence. Trust is the glue that holds an orderly, civilised society together. In business organisations, trust binds people together, making them strong and effective. Without trust, no company can hope to achieve excellence. History, reputation, track record and patterns of behaviour. E-businesses that fail to assure third parties of the integrity, security and reliability of their business processes run a very real risk of failure.

Very related to this problem is the problem of payment for goods bought on the net. It is indeed a very big problem. The obvious choice for payment is credit card, because that is the easiest way to pay, type out a numbers and the payment is made. Theoretically speaking, it is that easy. But in real life, the things do not go that smooth. For Indian customer the population of credit cards holders is very small. So, some websites have alternative modes of payment like cheque, or demand draft. But then for any outstation cheques, one has to pay a commission to the bank and making a demand draft from the local bank is also at times a strenuous job. So while e-commerce was supposed to hassle free, it is posing to be otherwise. And that is why even when the graphs of Internet users are soaring high everyday, the online trading is not growing at the same velocity.

The second problem of credit card is the security problem. Even the few people who are having credit cards with them are afraid to use it on the net, because credit card numbers may get hacked. In fact, such cases of hacking are not at all rare, and on the contrary, it is almost an every day threat to the e-companies; every now and then we find that some servers or the other have been hacked and credit card numbers has been stolen. A report from A.T. Kearney in 1998 shows that more than 55% surfers are afraid to use the net because of security risk. However, this fear of being hacked is universal; Jarvenppa and Tractinsky (1999) have found out that ‘security risk’ is one of the leading
problems of buying on the net and they have validated the hypothesis cross-culturally by taking samples both from Australia and Israel.

Researches on software development are being made everyday to make the servers hacker proof, but it has only lessened hackers but could not eliminate them as yet. The problem is that when a customer is buying different things from different websites he has to give his credit card number to those sites as a result the credit card number gets stored in many servers round the world, making the credit card more vulnerable to hacking. But many new techniques are in the process of being developed which shall in turn make online shopping more secure and safe. If digital signature comes in vogue then a lot of these problems can be eliminated.

**CRITICAL MASS FOR SURVIVAL OF E-COMMERCE.**

Net penetration is anything but interesting. The figures are significantly lower than countries like the U.S.A, U.K, Sweden, and Finland that have over 20percent net penetration. Even countries like China (0.3%), Thailand (1.25%) and Indonesia (0.22%) are much ahead of India. And without significant numbers of online users, economies of scale cannot be achieved, thus leading to failure at the end. Even the figures of net penetration that we get from recent surveys are not very encouraging also. But for this, the basic problem is access to Internet. Still the price of computer is much higher than what a middle class Indian family can afford.
And surfing in cyber cafes are popular in Metros only and are yet to be popular in suburban areas.

Next comes bandwidth. The poor bandwidth of India is one of the prime factors for making the surfing slow for end users. Thus, it not only takes a lot of time, but it also becomes expensive to surf the net. What is needed at this moment is that more and more people should surf the net and get into the daily habit of doing so. Then very soon Indian dot coms may get enough customers to sustain the business. But still in India the only gateway is VSNL though there are many ISPs, and getting a connection itself needs many dials. Thus, all these troubles get added up to a very big problem. Leading to a habitual avoidance towards Internet. Things are yet worse at non-metro suburban places where VSNL is the only option and there the telephone line even does not work very well. Thus, what we find is that there is a dire need of more investment in the infrastructures.

**LEGISLATION.**

Unfortunately, there are not enough laws to protect consumers in the event of fraud. Online shoppers are often at the mercy of cyber hackers, who set up fake sites to intentionally delude the customers. Issues relating to consumer rights are even more confusing when it comes to overseas deal. There is no proper law in the country for Internet. In fact, the digital world poses the same problem round the globe. Even in the U.S.A the music companies are fighting with Napster to fight back music sharing on the net. However, there are many problems that
are yet to be solved properly for the smooth running of an E-company. The dimension of the legal problem can vary from petty matter to very big problems. Just to give a clear picture we here present some of the problems; Can a soft copy of a copy righted written material be distributed on the net, simply by email? Can the same file be transmitted through file transferring protocols like Napster etc.? Will it be treated as breach of copy right of just merely lending a book? This same problem aggravates in case of digital libraries; unlike other physical libraries, digital libraries always need special permission from the publisher of the author. The confusion was there even a few days back for hackers -under what section would they come in? Stealing passwords or credit cards numbers did not appear in the law book before. Rediff.com is facing a legal battle at this moment with Mr. Abhinav Bhatt, who has filed a lawsuit against Rediff.com accusing the site for promoting pornographic material. In fact, he has typed the words 'animal sex' in the search facility of the site and the site produced result. The Asian School of Cyber Laws, a non-profit organization that has launched a mission to combat cyber crime says, the charge against Rediff is serious under Sections 292(circulation and publication of pornographic material) and 109(abetment). However, it should be remembered that rediff.com is a portal and it does not contain any such offensive material that the other sites contain. So, the fact of the matter is that Rediff has neither 'produced' nor has 'circulated' any such pornographic material. In fact, according to the CEO of Rediff – 'the only fault was that search engine actually worked". And in fact why only Rediff, there are
actually other many such engines like AltaVista, Lycos, Google why not sue them?

The lawyers on the other hand says, that AltaVista, Lycos etc. are foreign search engines and do not come under the Indian law. But if Indian search engines like 123india.com can filter out all the obscene material, then why cannot Rediff.com do the same?

However, here one factor needs to be clarified that 123india.com is not a search engine it is a directory like Yahoo.com. A directory is a huge list of websites that are classified under group or subheads, and are mostly operated by human editors instead of bots. So, when anything is searched from these websites it looks within its directory and goes to the necessary subheading and gives out a list of websites. But a search engine search the webs and scans the meta-tags that the website has and throws a result. Thus, controlling a directory is easy; but controlling a search engine means impairing it from its ability.

Pornography is a subject of great concern both socially and legally. And the differentiating line between art and obscene is very slender. Here, we would like to site the example of CDA as given by Filippo (2000). In 1995 due to social pressure the Communications Decency Act (CDA) was passed in the USA; which sought to tackle free speech, and online censorship, with such broad strokes that even sites focusing on ‘breast cancer awareness’, ‘responsible sex education’, or ‘renaissance art’ became potentially illegal. And the Supreme Court had to do away with it within a time of two years. So it goes with out saying that it is not going to be easy for the Indian government too to frame laws in these affairs.
Before ending we would like to point out even if rediff.com comes up with the solution of banning out obscene material, the resultant impact is not going to very profitable for Rediff. Because studies has shown that the most searched words on the net are 'sex', 'Mp3s', and 'free'. Thus, if rediff.com loses this lawsuit; it can be said for sure that this profit making Indian portals will loose greatly to its foreign competitors.

So, it is a long way to solution. And in fact, India needs much detailed cyber laws for better operation of the Internet, and the growth of e-commerce.

**LOGISTICS:**

Delivery system is another problem for the businessmen. The Indian postal system is so big and overloaded that goods are not generally supplied by post. And the problem with courier is that no single courier covers all of India. No one has branches in every metro and small towns of India. Fed Ex in USA had foreseen the need of and the growth of online transaction and delivery of parcels, so they had started making strategic acquisitions from late 1997 and early 1998 (Rao, Navoth and Horwitch. 1999). But here in India we at present direly lack such foresightedness like Fed Ex. In Argentina the wave of E-commerce failed to take off because “it is not followed by parallel growth in physical network of roads, postal services, etc.” (Aonglus 1999) Thus, lack of proper infrastructure is a major blockade for the growth of e-commerce.

Next comes cost. To deliver each item individually to a house by courier is a costly affair; so the customer has to pay for the charge
also either it is included within the price tag or is added later, either way the customer has to pay for it. So, companies have started to build their own specialized logistics system. And other logistic specialists are also arriving on the scene. But the delivering strategy is soon going to change.

While the present delivery system is one to one, a common logistics system can solve the problem to a great extent. If we take the problem on a small scale; say three different buyers buying from three different companies with a one to one delivery resulting in nine transactions, which has to be borne directly or indirectly by the customers. But instead of that if we have a common logistics system then all the parcels will get delivered in just three transactions.

However, as the growth of the e-commerce takes place, the economies of scale can be achieved and then we shall witness region wise distribution. It shall be like deliveryman/logistics provider for south Delhi or south Calcutta zone. And the supplier shall deliver all type of goods to the people of the region. So it goes without saying that more and more customers shall buy online store not only the stores, but also the process will reach it’s economic of scale and shall thrive better. But still then India being a vast country and most parts are unplanned and still many big town lack proper numbering system of the houses it is really very difficult to develop a sustainable model for logistics.
**INTANGIBILITY OF THE PRODUCT:**

In online transactions the consumers cannot touch the product he is buying. But Transaction Satisfaction Index [Parusaman et al (1994)] shows that transaction satisfaction for a consumer depends upon his or her

i) Evaluation of the Service Quality.


iii) Evaluation of Price.

But on an online transaction, seldom can one make evaluation of the service quality and of the product quality. Thus, leading to a lesser degree of transaction satisfaction for the consumer. And surveys have also shown that intangibility is one of the prime concerns of the online customers. A study conducted by MODE and Intercept (2000) on online shopping has shown that those products are in demand that can vary very little from one dealer to another. And hence customers are always sure of the quality. The top three products are Books, PC softwares and music CDs.

The following chart which is a excerpt from a survey conducted by MODE and Intercept in the last quarter of 2000 shows it more clearly, that people are not yet mature enough to take Internet as a regular buying or shopping medium:

- Have bought or ordered goods on the Internet in the last 1 month --3%
- Have bought or ordered goods on the Internet in the last 6 months-2%
- Have considered buying or ordered goods on the Internet in the last 1 month but decided not to----------------------------- -------3%
Have bought or ordered goods outside of the Internet as a result of information found on the Internet in the last 1 month ------ 6%
Plan to buy or order goods on the Internet within the next 6 months --------------------------------- 20%
None of the above ---------------------------------- 66%.

This clearly shows that people on net are yet to derive complete buying satisfaction from the net.

**Traditional Businesses Are Struggling to Respond**

Many traditional and profitable businesses are struggling to respond to the threats and opportunities of e-business. The threats are played out not only in stock market valuations, but also in the marketspace, where dot-coms without the heavy investment in physical infrastructure can cherry pick profitable niches in which to compete. Traditional firms face a number of difficulties in responding:

- **Culture and leadership.** Most large traditional firms are successful and profitable, and they achieved their success via strong leadership and cultures suited to their industry. E-business threatens this status quo in traditional firms. The leaders are often ill-prepared to make major strategic commitments to e-business and are reluctant to take the initiative, preferring to wait and see. In firms such as the bank described earlier, the prevailing culture actively works against new initiatives that threaten the status quo. Senior management must shape the e-business vision and the employees and the culture they create must implement the models. In
many places of this thesis we will refer to the importance of leadership and culture without discussing the details, as it really does not encompass our scope of discussion.

- **Channel conflict.** Potential channel conflicts exist between the new e-business channels and traditional channels, often including intermediaries. Recently one of Australia's largest retailers, Harvey Norman, announced that it would forgo A$100 million of revenue and no longer sell Compaq computers in response to Compaq's decision to sell their computers direct to the consumer via the Internet and Compaq retail outlets.²¹ Harris Technologies, an online retailer owned by Australia's largest retailer, Coles Myer, also announced that it would no longer carry Compaq products.

In later discussion we have dealt with the problem of channel conflict and probable solutions to it. However we point here the case of Levi Strauss to illustrate the fact of "Channel Conflict"

**LEVI STRAUSS:**

Levi Strauss has long been one of America's most admired corporations and has made its name in the world of blue jeans and casual clothing. But as a traditional manufacturing company, Levi's often felt too removed from its end-consumer and felt frustrated that its consumer connections only got as far as its factory gate.

Levi's has shown what manufacturers of consumer goods can achieve by pushing out into the consumer arena, opening its own stores and working hard to build stronger customer relations. It is this greater proximity to its market place that helped Levi Strauss to realize its customers still were not satisfied. They wanted still better service, better fit, and better value. In a world where many
products are perceived as commodity-like, Levi's consumers expected something extra from the market leader. As one response to this challenge Levi's have changed their whole sales, marketing and distribution to an electronic format. For its distributors it has developed an interactive operating system that automatically allows reordering and enables other retailers to tap into Levi's own internal manufacturing processes, track where the order is and even alter order configurations within certain guidelines. Distributors as a result feel they have much better relationships and are more in partnership with Levi's.

In Levi's own stores, the company has introduced a simple interactive kiosk which enables the store assistant or customers themselves to input their personal measurements and get a 'Custom Fit' pair of jeans made up and ready for collection within a couple of weeks. Lead times for this service are already reducing and a one-week turnaround is already being targeted.

Levi's then considered the possibilities of offering this same complete service over the Internet, so that consumers can shop with even greater confidence from home. After all, for many of Levi's consumers buying a pair of jeans is simply a replacement for a worn-out pair, there is no need to visit the store to try them on and a measurement facility can be easily offered on-line. But this time Levis website bounced back to them. Levi was targeting the same group of customers in the both offline and online world. A customer is not going to buy double their needs, so either he is shopping online or he is shopping offline. The more Levi Strauss advertised to the customers about their online shop the more it bite into the profit pie of the offline stores. Thus it became a clear case of

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cannibalization, and before long Levi had to shut down the online store.

- **Cost reduction.** Many traditional firms struggle to capitalize on the lower costs available via e-business. A recent Booz Allen & Hamilton study found that the cost per transaction for banks by channel was (in order of decreasing cost):
  - Branch: U.S.$3.00,
  - Telephone: $1.50,
  - ATM: $0.78-$0.42,
  - IVR: $0.30,
  - Point of sale: $0.42-$0.24, and
  - Internet: $0.12-$0.06.22

While the economics of e-business are compelling for a bank, many customer segments prefer a branch or a call center with a human voice. As reported by P. Hudson, in The Age, (1998), in Australia, more than 500 bank branches have closed in the last year, with 1,131 closed in the last five years. Over the same five-year period, the number of ATMs has tripled. The public and media have criticized the major Australian banks for these wholesale closures of bank branches, particularly in country towns. On the other hand, in the United States, although the number of banks has steadily fallen since the 1980s, the number of branches has risen consistently at about 2 percent per year. American banks are responding to customer sentiment in some segments. For customers selecting a new bank, the location and availability of
branches—regardless of the frequency of use—still are significant criteria. In response, banks are seeking more effective ways to use their branches for high-value transactions and cross-selling.

- **Skills shortage.** The skills necessary for e-business initiatives are in short supply and high demand. Traditional firms struggle to offer compensation packages that compete with the huge potential upside of stock options for employees of dot-coms. Managers of the firms that support our research and attend our executive education programs used to complain that their young people often leave potentially successful career paths in traditional firms for the learning experience, excitement, and stock options found at dot-coms.

- **Infrastructure.** The IT infrastructure requirements for e-business are stretching the capabilities of many firms' IT portfolios. Many traditional firms are struggling with B2B e-business implementation that may require integrating their recently installed and expensive enterprise resource planning systems (ERPs) with their Web sites and those of ally firms. Difficulties include incompatible technical platforms, security, data reliability, and accessibility. The compressed time frames of the e-business world compound these challenges by creating pressure to deliver IT applications in weeks rather than months or years. Firms wishing to compete via e-business must invest in IT infrastructure, which accounts for more than 50 percent of the average firm's IT budget year after year. The promise of "less infrastructure investment after this big investment" never seems to eventuate!
In summary, many traditional businesses lack the physical and IT infrastructure, skill sets, culture, and incentive schemes that are required for e-business initiatives. In addition, these businesses have customer segments that want to do business in traditional ways.

William Thiele, vice president of the General Reinsurance Corporation, sums up the challenges perceived by traditional firms as follows:

"Internally the benefits are clear: it has speeded up our business tremendously; we're now effectively open twenty-four hours a day. People work from multiple locations in a collaborative environment. Externally, this is both a challenge and an opportunity. We've been in business a long time; we have substantial investment in bricks and mortar. Our business model has emphasized face-to-face contact, personal relationships and direct marketing. We can easily envision someone setting up shop in Dublin or Honolulu or wherever they want to, accessing all of our customers without going through the trouble we have. And if anyone else can do that... we have to do it faster and better."

Some firms, such as the Bank of Montreal, have responded by establishing an autonomous e-business business unit (www.bmo.com/banking) with a different brand, infrastructure, and pricing structure to appeal to the e-business-ready segment of their customers, as well as to attract new customers. The number of BMO direct-banking clients increased 48 percent in 1999 to one million.26 Other firms have begun e-business initiatives under their existing brands, and many are still searching for a profitable business model. For example, more than twenty-seven hundred
U.S. newspapers post an edition online, but they are generally struggling to find a profitable business model. Many users of the Internet expect free content, so charging a subscription fee is problematic. Newspapers seek ways to migrate their successful place business models, based on subscriptions, general advertising, and classified advertising, to space. The online versions of newspapers and classified advertisements with sophisticated search capabilities provide a strong value proposition. How can they generate sustainable revenues evolving to e-business?

Traditional businesses have to respond to e-business opportunities and threats. The Prime Minister of UK has very aptly commented that "if you don’t see the Internet as an opportunity, it will be a threat." (Financial Times 1999) Most businesses that operate wholly in place today will need to operate in both place and space tomorrow. The speed of the migration will be determined by the boldness of their competitors, as well as by their own vision and courage. During the process of migration, a traditional business will consider and experiment with a portfolio of potential e-business initiatives. In the later part of this thesis we have taken up typical examples and case studies to illustrate the common mistakes and the causes of success.