



SECURITY AND SECURITY SOLUTIONS AND DIFFICULTIES OF E-BUSINESS

Mr. Shoyab Tayar Shaikh
SSMBST College Sangamner,
Dist- Ahmednagar, (MH)

Dr. Dattatray D. Pawar
SSMBST College Sangamner,
Dist- Ahmednagar, (MH)

History of E-Business

In 1998, IBM, with its agency Ogilvy & Mather, began to use its foundation in IT solutions and expertise to market itself as a leader of conducting business on the Internet through the term "e-business." Then CEO Louis V. Gerstner, Jr. was prepared to invest \$1 billion to market this new brand.

After conducting worldwide market research in October 1997, IBM began with an eight-page piece in the Wall Street Journal that would introduce the concept of "e-business" and advertise IBM's expertise in the new field. IBM decided not to trademark the term "e-business" in the hopes that other companies would use the term and create an entire new industry. However, this proved to be too successful and by 2000, to differentiate itself, IBM launched a \$300 million campaign about its "e-business infrastructure" capabilities. Since that time, the terms, "e-business" and "e-commerce" have been loosely interchangeable and have become a part of the common vernacular.

Electronic business, or e-business, is the application of information and communication technologies IICT in support of all the activities of business. Commerce constitutes the exchange of products and services between businesses, groups and individuals and can be seen as one of the essential activities of any business. Electronic commerce focuses on the use of ICT to enable the external activities and relationships of the business with individuals, groups and other businesses or e business refers to business with help of internet i.e. doing business with the help of internet network. The term "e-business" was coined by IBM's marketing and Internet team in 1996.

Introduction

Today e-Business is a fast emerging reality and an imperative that no business setup can anymore ignore or avoid. For success in the new “digital economy” and actualizing the potential of e-commerce and e-business, it is not enough just to have the physical infrastructure. Once the infrastructure is in place, an optimal environment would require the availability of inexpensive computer hardware and software, wide and unrestricted access to the Internet at inexpensive rates, reliable electric power, and a banking system supportive of entrepreneurship. What is essential is an ‘info-structure’ which encompasses, amongst other requirements, the appropriate legal and financial framework; a political and business environment conducive to its development; and the human resource capacity to participate in it. It is therefore important to assess each entity’s e-readiness on such a framework so that in doing so, the gaps would become apparent and strategies for action evident.

Meaning

E-business is the transformation of key business processes through the use of Internet technologies. The Web is changing every aspect of our lives, but no area is undergoing as rapid and significant a change as the way businesses operate. As businesses incorporate Internet technology into their core business processes, they start to achieve real business value. Today, large and small companies are using the Web to communicate with their partners, to connect with their backend data-systems, and to transact commerce. This is e-business, where the strength and reliability of traditional information technology meet the Internet.

Key words: Concept, Meaning, Security, Security Solution and Difficulties of E-Business.

Objectives of the study

The objectives of the research paper are as below:

- To get the full acquaintance and concept of E-Branding.
- To know the Security and Security Solution of E-Branding.
- To know the Difficulties of E-Branding.

Research Methodology

The primary source of data collection in this research paper is the secondary data. The available information on Indian Economy has been extensively used to complete the research report. All the available Journals, Related books, Web, Articles, Publish and

© Association of Academic Researchers and Faculties (AARF)

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories.

unpublished information and Papers provided necessary information to the finalize the research paper.

❖ **Security**

E-business systems naturally have greater security risks than traditional business systems, therefore it is important for e-business systems to be fully protected against these risks. A far greater number of people have access to e-businesses through the internet than would have access to a traditional business. Customers, suppliers, employees, and numerous other people use any particular e-business system daily and expect their confidential information to stay secure. Hackers are one of the great threats to the security of e-businesses. Some common security concerns for e-Businesses include keeping business and customer information private and confidential, authenticity of data, and data integrity. Some of the methods of protecting e-business security and keeping information secure include physical security measures as well as data storage, data transmission, anti-virus software, firewalls, and encryption to list a few.

Privacy and confidentiality

Confidentiality is the extent to which businesses makes personal information available to other businesses and individuals. With any business, confidential information must remain secure and only be accessible to the intended recipient. However, this becomes even more difficult when dealing with e-businesses specifically. To keep such information secure means protecting any electronic records and files from unauthorized access, as well as ensuring safe transmission and data storage of such information. Tools such as encryption and firewalls manage this specific concern within e-business.

Authenticity

E-business transactions pose greater challenges for establishing authenticity due to the ease with which electronic information may be altered and copied. Both parties in an e-business transaction want to have the assurance that the other party is who they claim to be, especially when a customer places an order and then submits a payment electronically. One common way to ensure this is to limit access to a network or trusted parties by using a virtual private network (VPN) technology. The establishment of authenticity is even greater when a combination of techniques are used, and such techniques involve checking "something you know" (i.e. password or PIN), "something you need" (i.e. credit card), or "something you are" (i.e. digital signatures or voice recognition methods). Many times in e-business, however,

"something you are" is pretty strongly verified by checking the purchaser's "something you have" (i.e. credit card) and "something you know" (i.e. card number).

Data integrity

Data integrity answers the question "Can the information be changed or corrupted in any way?" This leads to the assurance that the message received is identical to the message sent. A business needs to be confident that data is not changed in transit, whether deliberately or by accident. To help with data integrity, firewalls protect stored data against unauthorized access, while simply backing up data allows recovery should the data or equipment be damaged.

Non-repudiation

This concern deals with the existence of proof in a transaction. A business must have assurance that the receiving party or purchaser cannot deny that a transaction has occurred, and this means having sufficient evidence to prove the transaction. One way to address non-repudiation is using digital signatures. A digital signature not only ensures that a message or document has been electronically signed by the person, but since a digital signature can only be created by one person, it also ensures that this person cannot later deny that they provided their signature.

Access control

When certain electronic resources and information is limited to only a few authorized individuals, a business and its customers must have the assurance that no one else can access the systems or information. Fortunately, there are a variety of techniques to address this concern including firewalls, access privileges, user identification and authentication techniques (such as passwords and digital certificates), Virtual Private Networks (VPN), and much more.

Availability

This concern is specifically pertinent to a business' customers as certain information must be available when customers need it. Messages must be delivered in a reliable and timely fashion, and information must be stored and retrieved as required. Because availability of service is important for all e-business websites, steps must be taken to prevent disruption of service by events such as power outages and damage to physical infrastructure. Examples to address this include data backup, fire-suppression systems, Uninterrupted Power Supply (UPS) systems, virus protection, as well as making sure that there is sufficient capacity to handle the demands posed by heavy network traffic.

Cost

The business internet which supports e-business has a cost to maintain of about \$2 trillion in outsourced IT dollars just in the United States alone. With each website custom crafted and maintained in code, the maintenance burden is enormous. In the twenty-first century, look for new businesses that will help standardize the look and feel of the internet presence of a business to be more uniform in nature to help reduce the cost of maintenance. Expect maintenance by graphical software tools instead of directly by code as a key business proposition that will revolutionize the internet once again.

❖ Security solutions

When it comes to security solutions, sustainable electronic business requires support for data integrity, strong authentication, and privacy.

Access and data integrity

There are several different ways to prevent access to the data that is kept online. One way is to use anti-virus software. This is something that most people use to protect their networks regardless of the data they have. E-businesses should use this because they can then be sure that the information sent and received to their system is clean. A second way to protect the data is to use firewalls and network protection. A firewall is used to restrict access to private networks, as well as public networks that a company may use. The firewall also has the ability to log attempts into the network and provide warnings as it is happening. They are very beneficial to keep third-parties out of the network. Businesses that use Wi-Fi need to consider different forms of protection because these networks are easier for someone to access. They should look into protected access, virtual private networks, or internet protocol security. Another option they have is an intrusion detection system. This system alerts when there are possible intrusions. Some companies set up traps or "hot spots" to attract people and are then able to know when someone is trying to hack into that area.

Encryption

Encryption, which is actually a part of cryptography, involves transforming texts or messages into a code which is unreadable. These messages have to be decrypted in order to be understandable or usable for someone. There is a key that identifies the data to a certain person or company. With public key encryption, there are actually two keys used. One is public and one is private. The public one is used for encryption, and the private for decryption. The level of the actual encryption can be adjusted and should be based on the information. The key can be just a simple slide of letters or a completely random mix-up of letters. This is relatively easy to implement because there is software that a company can

purchase. A company needs to be sure that their keys are registered with a certificate authority.

Digital certificates

The point of a digital certificate is to identify the owner of a document. This way the receiver knows that it is an authentic document. Companies can use these certificates in several different ways. They can be used as a replacement for user names and passwords. Each employee can be given these to access the documents that they need from wherever they are. These certificates also use encryption. They are a little more complicated than normal encryption however. They actually used important information within the code. They do this in order to assure authenticity of the documents as well as confidentiality and data integrity which always accompany encryption. Digital certificates are not commonly used because they are confusing for people to implement. There can be complications when using different browsers, which means they need to use multiple certificates. The process is being adjusted so that it is easier to use.

Digital signatures

A final way to secure information online would be to use a digital signature. If a document has a digital signature on it, no one else is able to edit the information without being detected. That way if it is edited, it may be adjusted for reliability after the fact. In order to use a digital signature, one must use a combination of cryptography and a message digest. A message digest is used to give the document a unique value. That value is then encrypted with the sender's private key.

❖ Difficulties of E-Business

The Internet as a means of trade raises several complex issues. The following example helps elaborate the complexities in the types of transactions that are now possible with e-Commerce in relation to a common Anti-virus software programme:

1. A consumer could just buy it at a store nearby, packaged in a CD or DVD.
2. The manufacturer could send it over the Internet to local or cross border distributors who then copy the programme on to CDs and sell them at their store to local consumers.
3. A consumer could order it over the Internet from a domestic or cross border manufacturer and it would be mailed to him.
4. A consumer could order it over the Internet and it could be sent in digitized format directly to the computer of the consumer.

5. A consumer while ordering the software could choose an option whereby the programme is regularly updated through the Internet by the supplier.

❖ **Examples of E-Business**

General Electric

General Electric has become a real-time enterprise where the GE CEO monitors the real-time status of business activities and applications critical to GE's day-to-day operations. The monitoring is done through a screen that flashes a series of green, yellow, and red icons for various GE business units. The goal is to monitor, once every 15 minutes, GE's mission-critical operations such as sales, daily order rates, inventory levels, and other important activities across the company's 13 different businesses around the globe. The icons are checked regularly by agents that feed business status information to the control panel so that the management can respond to changes (e.g., supply chain disruptions) and manage risks continuously. GE estimates that its digitization efforts saved the company \$1.6 billion in 2001 and is expected to do the same in 2002.

Microsoft

Microsoft anticipated changes in customer behavior and embarked on a business strategy to attract mass consumer market that goes beyond the typical PC users in office. By using the Microsoft Network (MSN) infrastructure, it reengineered several value chains such as travel (Expedia), real estate (Home Adviser), finance (Investor), and automotive sales (CarPoint). Microsoft's business strategy is to win a major share of the sales and distribution charges in the huge markets for airline tickets (\$100 billion), automobile sales (\$334 billion), and retail goods (\$1.2 billion). By entering in these markets, Microsoft has significantly impacted the marketplace.

Nestle

Nestle, an international food and pharmaceuticals company operating in more than 70 countries, decided to standardize its business processes to compete in e-business. The factories in different countries did business according to local rules and culture. But this did not allow the company to use its worldwide buying power for commonly used raw materials. The company introduced a single Enterprise Resource Planning (ERP) to streamline its material requirement and planning systems and significantly reduced operational costs.

Visteon

Visteon, a spin-off of the Ford Motor Company, manufactures auto parts. To compete in the fiercely competitive auto parts market, Visteon embarked on a streamlining initiative. The goal of the initiative is to cut product development time from 30 months to 10 months, and to reduce manufacturing time from 5 days to 1 day. At the core of this initiative is an integrated supply chain management system that links suppliers, designers, and production planners in a uniform manner.

Auto-by-Tel, a web-based auto sales company, started with the strategy that the auto prices for the same car vary widely between dealers and that potential customers cannot visit all auto dealers to find the best deal. Auto dealers bought into this idea because it increased their sales channels. The large auto manufacturers are also responding to the web-based auto sales as a "virtual dealerships" that can sell cars. This is a good example of a solution that addressed an existing problem.

References

1. Jump up^ Beynon-Davies P. (2004). E-Business. Palgrave, Basingstoke. ISBN 1-4039-1348-X
2. Jump up^ Gerstner, L. (2002). Who says Elephants Can't Dance? Inside IBM's Historic Turnaround. pg 172. ISBN 0-06-052379-4
3. Jump up^ Amor, D. (1999). The e-business (r)evolution. Upper Saddle River: Prentice Hall.
4. ^ Jump up to:^{a b} Pettit, Raymond (2012). Learning From Winners: How the ARF Ogilvy Award Winners Use Market Research to Create Advertising Success. Taylor & Francis. pp. 32–33. ISBN 9781136676765. Retrieved 2014-05-31.
5. ^ Jump up to:^{a b c} Meyer, Marc H. (2007). The Fast Path to Corporate Growth: Leveraging Knowledge and Technologies to New Market Applimcations. Oxford University Press. p. 30. ISBN 978-0195180862.
6. Jump up^ Lowry, Paul Benjamin; Cherrington, J. Owen; Watson, R. J. (2001). E-Business Handbook. Boca Raton, FL: CRC Press.
7. Jump up^ Paul Timers, (2000), Electronic Commerce - strategies & models for business-to-business trading, pp.31, John Wiley & Sons, Ltd, ISBN 0-471-72029-1
8. Jump up^ Badger, Emily (6 February 2013). "How the Internet Reinforces Inequality in the Real World". The Atlantic. Retrieved 2013-02-13.