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CDP: Collection Development Policy of E-Resources to Satisfy User Requirements

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ABSTRACT

New E-commerce will present over time countless opportunities and challenges to our economies and societies. Expansion of commerce and technological innovations are two of the levers of economic growth. These forces are combined in the progress of E-commerce. The traditional institutions, such as banks of issue, commercial banks, universities, established business intermediaries, media and publishing companies, would find a need to redefine their roles in the new environment. The taxability of products traded globally over the Internet is as yet an open issue. Intellectual property that can be converted to on-line content may find itself reevaluate in the global market place. Naturally the collection development policy (CDP) in the electronic environment had to metamorphose. There in this issue, we are spreading light on the tools applicable in E-commerce and security issues related to these areas.

KEYWORDS : CDP (collection development Policy), E- commerce, E-resources.

Introduction

Any electronic product that delivers a collection of data, be it text referring to full text bases, electronic journals, image collections, other multimedia products and numerical, graphical or time based, as a commercially available title that has been published with an aim to being marketed. These may be delivered on CD-ROM, on tape, via the Internet and so on. In early days there was no phrase like electronic computing and all the tedious task was to be done manually. But now with the emerging trends in Information Technology, it is spreading it wings in almost every sphere of life. Advances in technologies in recent years have made computer networks an integral part of the economic infrastructure .But the advent of information and communication Technologies, the internet and particularity the world wide web have revolutionized literally every thing under the sun. The publishers around the globe have reaped the advantage of these technologies to an increasingly appreciable extent and brought in a plethora of electronic resources in abundance. This has consequently resulted in a paradigm shift in the original philosophy of actual possession of resources to actual access of the same.

- E-Commerce is sharing business information, maintaining business relationships and conducting business transaction by means of telecommunications network
- It is conducting the exchange of information using a combination of structures and unstructured messages across the entire range of networking technologies
- The Internet's WWW has been the prime driver of contemporary E-commerce
- E-commerce enables organizations of all sizes and in all market sectors to improve their competitiveness

E-resources Overview

E-commerce can be broadly classified into three categories: business to business (B2B), business to consumer (B2C) and consumer to consumer (C2C). The Internet also encompasses a wider spectrum of potential commercial activities and information exchanges. For instance, it offers firms, individuals and governments an electronic infrastructure, which enables the creation of virtual auction markets for goods and services.

Governments in some developed and developing countries are beginning to reorganize the management of public procurement systems – equivalent to some 10 per cent of GDP – over the Internet, opening the prospect of sizeable business to- government (B2G) transactions. The technology is also being used by governments for the transmission or receipt of information (G2B, G2C) to improve the convenience and lower the cost of payment systems and tax compliance (C2G), and by businesses to manage after sales service and to develop direct consumer marketing.

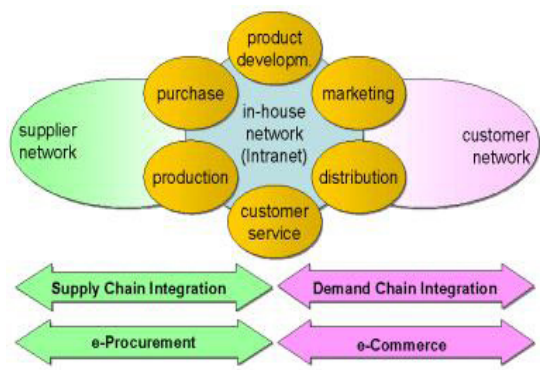


Fig A. Internet based E-commerce

Network infrastructures such as telecom, wireless, cable TV, Internet and Intranet are used to implement e-commerce transactions. The focus is currently on Internet-based e-commerce. An e-commerce activity, which typically involves the following steps, invokes a wide variety of services:

- The customer sits down at a computer terminal or other access device (computer service).
- Goes to a website with promotional information (advertising service).
- Logs onto the Internet (communication service).
- Orders a product (distribution service) and pays for it (financial service).
- Downloads the product, if digitized, or has it mailed to an address (delivery service).

Advantages of E-Commerce

- Increase sales and decrease sales costs
- A small firm's promotional message out to potential customers in every country in the world with good ad
- Reach narrow market segments that are geographically scattered
- Increases sales opportunities for seller, it also increases purchasing opportunities for the buyers
- Businesses can identify new suppliers and business partners
- Provides buyers with a wide range of choices than traditional commerce
- Electronic payments of tax refund, public retirement, and welfare support cost less to issue and arrive securely and quickly when transmitted over the Internet
- Electronic payments can be easier to audit and monitor than pay-

ments made by check, providing protection against fraud and theft losses
- Electronic commerce enables people to work form home

Disadvantage of Electronic Commerce
- Many products and services require that a critical mass of potential buyers be equipped and willing to buy through the Internet.
- Costs and benefits have been hard to quantify.
- Many firms have had trouble recruiting and retaining employees with the technological, design, and business process skills needed to create an effective electronic commerce.
- Firms also have difficulty of integrating existing database and transaction-processing software designed for traditional commerce into the software that enables electronic commerce.
- Firms also face cultural and legal obstacles to conducting electronic commerce.

Benefits of E-Commerce
- The market for a Web based is not bound by any geographical constraints
- The transaction cost go down tremendously in a well set up site
- Better, more inviting, convenient and comprehensive presentation of goods is conducive to greater sales
- Small and large firms alike have the opportunity to set-up and conduct business on the internet.
- An inexpensive advertising medium for organizations, it allows organizations an opportunity for publicizing their products and services at minimal cost.

Barriers to E-Commerce
The main barriers to e-commerce can be seen in the following areas below:
Access and Connectivity
With the tremendous growth of Internet and e-commerce activities, there is urgent need for access, connectivity and local hosting. In many countries, operational speed and pace of downloads are regarded as slow.

Authentication and Standardization
E-commerce growth in the B2B and B2C segments will be strongly dependent on wide availability of the appropriate security authentication infrastructure, as well as on standards for goods sold over the Net. These would help remove security concerns and boost confidence in e-commerce transactions.

Cyber Laws
The streamlining of cyber laws related to taxation, protection of intellectual property rights and cyber crimes would help cross-border e-commerce. Fraud and morality issues still dominate most people's fears about the Internet and ecommerce.

Technology
E-commerce growth will be centered on new technologies. The use of mobile phones in e-commerce, for example, would extensively depend on WAP authentication protocols. The introduction of WAP mobile phones will widen access to the Internet.

Risks in E-Commerce
Business Practices
E-Commerce often involves transactions between strangers. However, appearances can be deceiving and several questions arise: How can a consumer know

- Whether a company will really carry out its orders for products and services as it claims?
- Whether there are product guaranties, or whether the company will allow the return of products?
- How a company will use any information submitted by him/her?

With the anonymity of E-Commerce, the unscrupulous can establish (and abandon) electronic identities with relative ease. This makes it crucial that people know that those companies with which they are doing business, disclose and follow certain business practices. Without such information, and the assurance that the company has a history of following such practices, consumers could face an increased risk of loss, fraud, inconvenience, or unsatisfied expectations.

Information Protection
It is important for consumers to have confidence that they have reached a properly identified WWW site, and that the company takes appropriate steps to protect private consumer information. Although it is relatively easy to establish a WWW site on the Internet, the underlying technology can entail a multitude of information protection and related security issues. As a result, the confidentiality of sensitive information transmitted over the Internet can be compromised. For example, without the use of basic encryption techniques, consumer credit card numbers can be intercepted and stolen during transmission. Without appropriate firewalls and other security practices, private consumer information residing on a company's E-Commerce computer system can be intentionally or unintentionally provided to third parties not related to the company's business. Security breaches may also include unauthorized access to the consumer's computer through an Internet connection. Thus, potential consumers involved in E-Commerce may seek assurance that the company has effective information protection controls and a history of protecting private consumer information.

Transaction Integrity
Without proper controls, electronic transactions and documents can be easily changed, lost, duplicated and incorrectly processed. These attributes may cause the integrity of electronic transactions and documents to be questioned, causing disputes regarding the terms of a transaction and the related billing. Potential consumers involved in E-Commerce may seek assurance that the company has effective transaction integrity controls and a history of processing its transactions accurately, completely, and promptly, and of appropriately billing its consumers.

There are various issues related to privacy and transaction security that can arise during business transactions. This section outlines such problems and suggests some solutions. By taking appropriate steps on your WWW site, you can increase consumer confidence.

Privacy and Server Logs
Most WWW servers log every access to them. The log usually includes the IP/DNS address, the time of the download, the user's name (if known by user authentication or obtained by the indented protocol), the URL requested, the status of the request, and the size of the data transmitted. Some browsers also provide the client used by the reader, the URL that the client came from, and the user's e-mail address. Revealing any of these data could be potentially damaging to a user.

Privacy and use of Cookies
A "cookie" is a mechanism to make up for the stateless nature of the HTTP protocol. Cookies can be used to store information that you have provided at some point when you access a WWW site. Among that data are the name and IP address of your computer, the flavor of browser you are using, the operating system you are running, the URL of the WWW document you accessed, and the URL of the document you were last viewing. Such information can be used for controversial purposes. This consumer trust should not be betrayed. Along with the other privacy policies a site uses, the policy for cookies should also be made known to the users.

Transaction Security
Client/Server and Network Issues In many ways the transaction security of a WWW site can be compromised. There are numerous means for an unsavory individual to snoop into what you are sending or receiving from the other end, including, but not limited to, the following:

- Spoofing. The client can trick your server into believing that the request or post that it's sending is from some other site. This is known as IP and/or DNS spoofing. Your server may respond believing that the client is "trusted", when it isn't.
- Sniffing. In some cases, it is possible for an unsavory individual to snatch packets as they are being communicated over the network, especially with the newer cellular modems, unsecured phone lines, and so on.
- Traffic Analysis. Using sampling techniques on the packets or, more commonly, the server log files, an individual can learn about the nature of the transactions that your site processes. This may be used, for instance, in analyzing the competitive level of your site by a site that provides the same services or products.

In each of these cases, the risk can be alleviated (or greatly reduced).

In the cases of spoofing and sniffing, the preferred technique is to use data encryption, or signed data for the transaction. When the receiving end gets what your server sends them, they must have the appropriate key to decrypt and make use of it. In the case of traffic analysis of the data files, assigning the file permissions on the directory, logs, and the files themselves is the preferred technique. The logs themselves can be encrypted for permanent archival. Nowadays, most commercially available servers and their respective clients implement encrypted transactions via some, usually proprietary, means.

The client-side of the WWW transaction has analogies to some of the preceding potential problems as well. The client may need to be assured that the server it is receiving its data from is who it says it is, and that the data itself is truly what was sent from the server. Additionally, the client may be asked to execute some code, in the form of a Java applet, JavaScript or Perl script, or some other helper application. In general, it is not recommended to enable the embedded scripting features within a given browser if you have secure or proprietary data anywhere within access of the user running the browser. The users should be made aware of such possibilities.

Payment Systems Security Issues

Credit card is one of the primary means of electronic payment on the WWW. Inspite of that a large percentage of users (20%) reported that they had their credit card stolen , there is still a lot of consumer confidence in credit card mode of payment. Again, this trust should not be betrayed and arrangements should be made to assure those who are reluctant (25%). However, E-Commerce security is more than simply encrypting the transactions. Businesses must also ensure that sensitive consumer information, such as credit card numbers, cannot be abused by employees and should not store unencrypted credit card information on the system's hard drive, nor should that information ever be stored in cookies. Remote users should not be asked to submit their credit card number in a fill-out form field unless you are using an encrypting server/browser combination. Even with an encrypting server, you should be careful about what happens to the credit card number after it is received by the server. For example, if the number is received by a server script, make sure not to write it out to a world-readable log file or send it via e-mail to a remote site. Consumers should be made aware of companies policies regarding the use and archival of credit card numbers, after they have been received.

Conclusions

New E-commerce is still in its formative stage. The business-to-business and intra-organizational segments currently dominate e-commerce. Many major digital retailers are as yet in the investment and brand-building mode and show no profits; yet many established retailers realize profits from the new selling channel. Buoyant growth is apparent throughout.

The hierarchical framework presented above offers an opportunity to separate concerns and analyze the specific aspects of this enterprise. The technological infrastructure currently imposes several limitations on the development of a global market-space and on the personal convenience of the participants. An integrated consumer-oriented transaction space is yet to emerge. The consumer market place is being developed by a large number of entrepreneurial initiatives, many of them experimenting on the frontiers. Moving the links of supply chains and products into market-space offers a major promise in raising economic efficiency of both manufacturing and service industries. As these moves take place and as the supply chains are reconfigured, many new firms may be expected to emerge and specialize around newly redefined core capabilities. The business models of many existing firms will be threatened. Although several intermediary roles are threatened by E-commerce, others are not, and new intermediary opportunities emerge.

E-commerce has entered a stage of rapid and sustained development. A large number of business models have been enabled by it. A number of questions have been posed here. All of these and many others will require further experimentation, experience, observation, analysis, and research.

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