

ANALYTICAL STUDY OF E-BANKING

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E-Commerce- The process of managing online financial transactions by individuals and companies is called E-commerce. This includes consumer and business-to-business transactions. Mainly e-commerce focuses on the systems and procedures whereby financial documents and information of all types are exchanged, such as online credit card transactions, e-cash, e-billing, e-cheques, electronic invoices, purchase orders and financial statements. E-commerce enables the consumer EDI-type functionality on the Internet. E-Commerce is also known as EC or Electric Commerce, which performs the business communication and transactions over computer networks and through computers linked to the World Wide Web (WWW).

In other words, eCommerce is the process of buying and selling of goods, services and transfer of funds through digital communications. E-Commerce also includes all inter-company and intra-company functions, like sales, marketing, accounts, logistics, manufacturing, and negotiation. It also includes electronic funds transfer, smart cards, digital cash, and all other methods of completing business transactions over digital networks. EC enables the corporate sector to use electronic mail, EDI (Electronic Data Interchange), file transfer, digital fax, video conferencing, workflow or interaction with a remote computer.

E-business or e-commerce is doing many business activities electronically using Internet-centric technologies, which includes business-to-business, business-to-customer and middlemen managed electronically. The B2B kind e-commerce refers to a company selling or buying from other company [1]. In B2C kind of business, the company floats its product information on web and consumers select the required products and orders after making payments electronically. Similarly, electronic media has replaced the traditional middlemen's. Similarly, EDI is a process to conduct business transactions electronically such as sending/receiving of orders, invoices and shipping notices used by many Organizations.

Internet has changed the day-to-day life of a common men including corporate world. The companies, regardless of size, can communicate with each other electronically. This means of communication is the one of the fastest mode of communication at low price. Internet is the backbone of e-commerce.

On other hand, e-commerce is commonly used by the manufactures for best deal that match the time and cost requirements. Production schedule are prepared and then they go through the inventory to check which of the materials need to be ordered and which suppliers can provide them according to their requirements. Then manufacturer post these order requests, generated by the system, to the various suppliers through the Internet. The suppliers then reply with their quotes and delivery estimates. Manufacturers may also post their production schedule onto the web to allow the suppliers to better prepare themselves to meet the production demands of the manufacturer. Some benefits of this approach are: Lower purchasing cost, Reductions in order processing time, Reduction in inventories

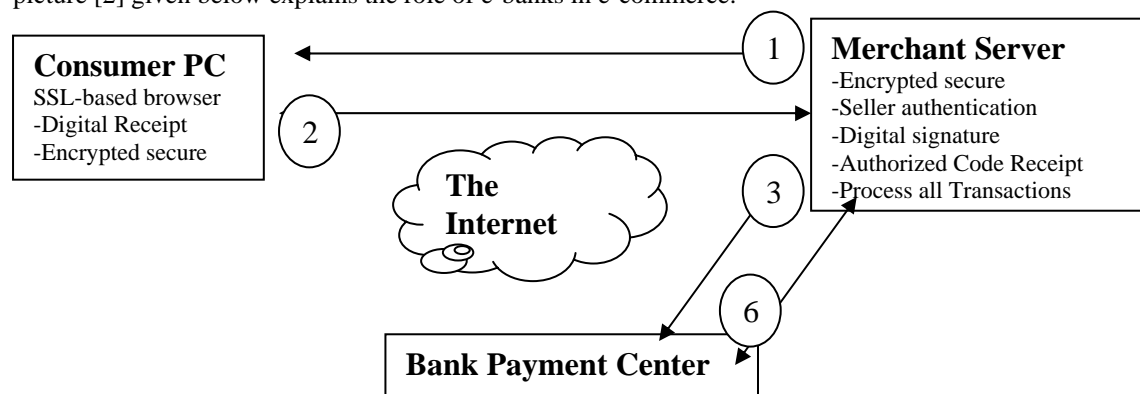
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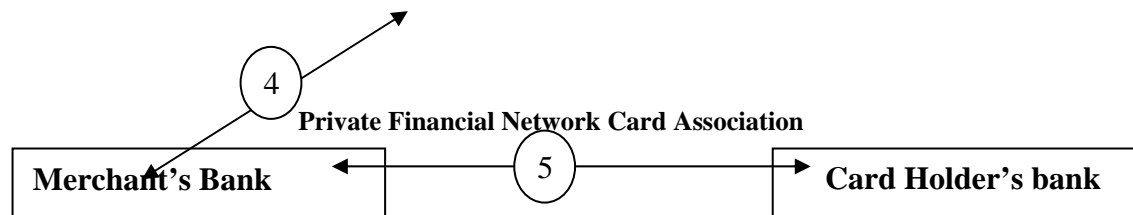
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There are some businesses those depend solely on the virtual shop. The shop, which doesn't have it's physical existence for the customer to walk through like Internet booksellers- Amazon.com.

In all these type of electronic transactions the banks transactions are directly or indirectly involve and therefore the electronic banking systems or Internet banking systems plays an important role in current economy. The picture [2] given below explains the role of e-banks in e-commerce.





Thus in short we can describe that the process of buying and selling or exchanging the products, services, and information through computers and computer networks including the Internet is a concept of **Electronic commerce**.

- Electronic Commerce includes delivery of information, products, services, or payments through computers/telephone line or any other electronic means.
- Electronic Commerce is the tool, which deals with the desire of firm and individuals. It improves the cost of the goods in today competitive market scenario and speed up the service delivery etc. EC provides online transaction.

As stated above in all these transactions the banks are directly or indirectly involved in it, which is referred as Cyber banking, Electronic banking, virtual banking, home banking, or online banking. Electronic banking has capabilities ranging from paying bills to securing a loan electronically to personnel account maintenance. Electronic banking saves time and money for users. It offers an inexpensive alternative to branch banking and a chance to enlist remote customers for banks. Many banks are beginning to use home banking. [3]

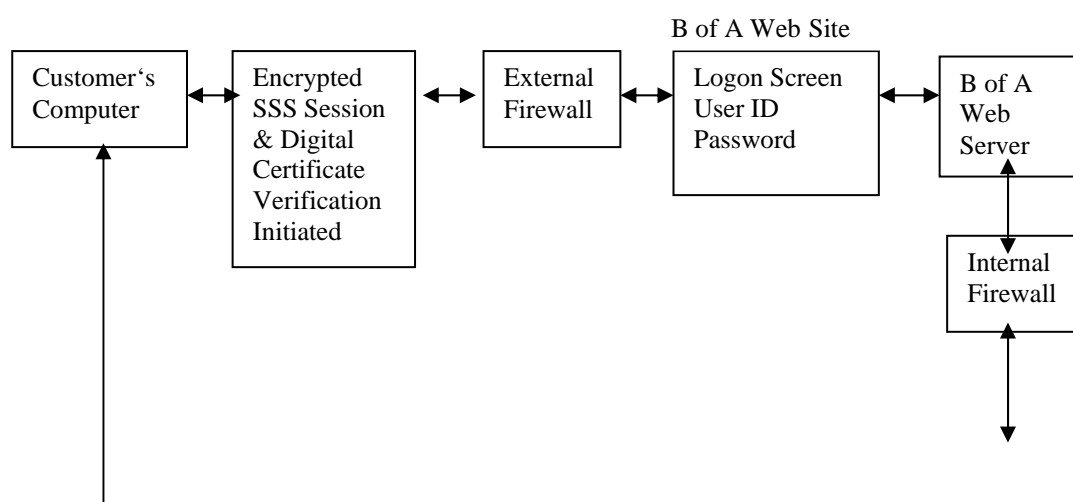
For example Wells Fargo is a one of the largest California-based bank having over 1,700 branches all over country. Its dealings are done through competitive strategy of cyber-banking. The bank wants to connect its millions of customers through Internet and network hundreds of branches. Web portal i.e. www.wellsfargo.com of banks offers multidimensional/diversified services on line. The services are categories like: online (personal) banking, personal finance services, small business, commercial banking, and international trade. It facilitates shopping by offering a virtual mall in which we can buy from the Wells Fargo Museum Store.

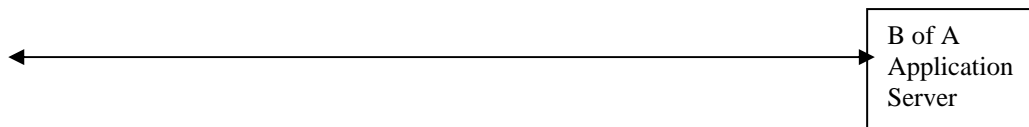
The silent features of home banking are: Know the current account balances and transactions through Internet and computer at home. It can provide current status of credit/debit cards. Payments can be made to various segments; money can also be transferred to any account. All these activities save time and efforts of individuals as well the corporate sectors, which is precious in modern age of 2020.

Implementation and Security Issues of Online Trading : But the major concern is the security of financial transactions through online banking those must be highly secured. Example of how Bank of America provides security and privacy to their customers. In India the State Bank of India, which is the one of the largest bank of India claims maximum security possible on its portal www.sbionline.com.

However most of the service providers like Bank of America (B of A) provides extensive security to its customers. Some of the safeguards provided by the bank B of A are "Customers accessing the system from the outside must go through encryption provided by SSL and digital certification verification. The certification assures you that each time you sign on you indeed are connected to the Bank of America. Then the message goes through an external firewall. Once the logon screen is reached, a user ID and a password are required. This information flows through a direct Web server, and then goes through an internal firewall to the application server. The bank keeps the information accurate; corrections are made quickly. The company uses "cookies" to learn about the customers. However, customers can control both the collection and use of the information. The bank provides suggestions on how to increase security." [4]

Bank Of America Security System





Banks create bank's intranet to allow customers more personalized service for access. Many Online banks allow customers access to their accounts, historical transactions, and any other related data, including Intranet-based decision support applications, which may be of interest to the customers.

The success of the online banking depends on alliances of the banks with other banks, software vendors, and information services. Effective outsourcing, Focus on the profitability of the customer, proper guidance to customer for investment and bank should keep just a central role in the payment environment. Which means it should play the role of service provider not the profit maker. For services the nominal charges may be deducted from the customers account with proper breach.

Online services may include the transactions like monthly bills, such as telephone, utilities, credit cards, cable television, and so on; online services are mostly preferred by the individual and corporate sector.

Banks are providing the services like: automatic transfers of amount to pay monthly bills- customers pay their gas and water bills automatically from their bank accounts. They provide online payments to other banks and market through credit card and online system.

The new form of traditional banking products and services directly to customers through electronic communication channels is known as **E-banking** which includes financial services to institutional customers and individuals, to access accounts, transact business, or obtain information on financial products and services through a public or private network, including the Internet. e-banking services using an intelligent electronic device, such as a Personal Computer (PC), Personal Digital Assistant (PDA), Automated Teller Machine (ATM).

The common banking service providers are providing customers with the ability to conduct transactions through the financial institution's website by initiating banking transactions or buying products and services. Some common E-banking Retail services are – Account Management, Bill Payment, New Account Opening, Investments, Loan Application etc. and Wholesale Services are Account management, Cash management, Small business loan application, b2b payments, employee benefits etc. Banking transactions can range from something as basic as a retail account balance inquiry to a large business-to-business funds transfer.

However, the services provided by these websites expose a financial institution to higher risk than basic informational websites. Wholesale e-banking systems typically expose higher financial risk to institutions since such commercial transactions usually involve larger amounts. In addition to the risk issues associated with informational websites, examiners reviewing transactional e-banking services should consider the issues like

Security controls for safeguarding customer information; authentication processes necessary to initially verify the identity of new customers and authenticate existing customers who access e-banking services, losses from fraud if the institution fails to verify the identity of individuals or businesses applying for new accounts or credit on-line, possible violations of cyber laws or regulations pertaining to consumer privacy and negative public perception, customer dissatisfaction, and potential liability resulting from failure to process third-party payments as directed or within specified time frames, lack of availability of on-line services, or unauthorized access to confidential customer information during transmission or storage.

E-Banking Components and configuration depends on different factors. Financial institutions should choose their e-banking system configuration, including outsourcing relationships, based on factors- Strategic objectives for e-banking, Scope, scale, complexity of equipment, systems, activities, Technology expertise and Security and internal control requirements as per the needs of customers. The host servers may require entities like Internet service provider, Internet banking software vendor or processor, Core banking vendor or processor, Managed security service provider, Bill payment provider, Credit bureau, and Credit scoring company apart from Website design and hosting, Firewall configuration and management, Intrusion detection system (IDS), Network administration, Security management, Internet banking server, E-commerce applications, Internal network servers, Core processing system, Programming support, and Automated decision support systems etc.

These components work together to deliver e-banking services. The following configuration or structure may host the e-banking system.

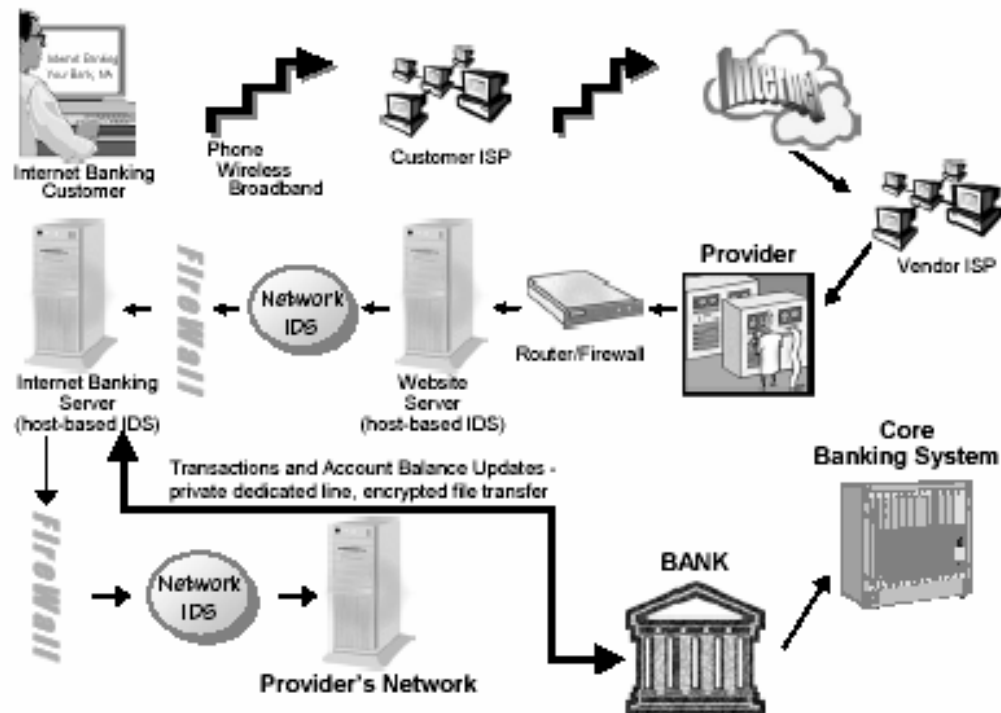


Figure 1: Third-Party Provider Hosted E-Banking Diagram

Within the organization the following structure may provide the e-banking system control and operations:

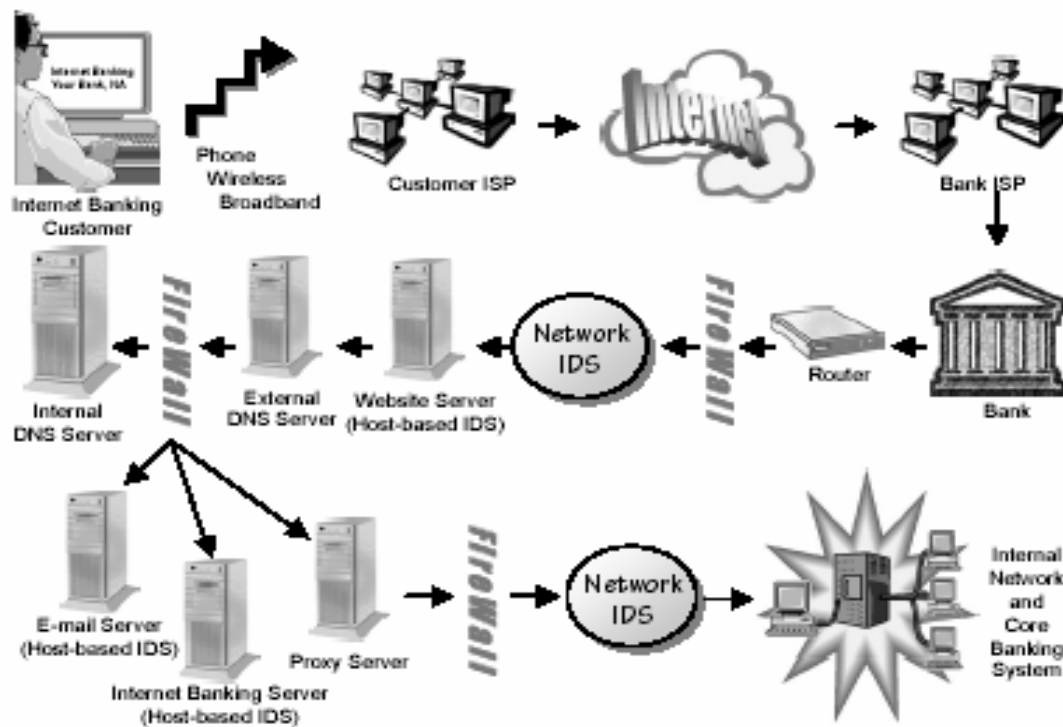


Figure 2: In-House E-Banking Diagram

"The importance of best practices is evident in the disparity in adoption rates between leading and average banks," says Grealish. Commenting on the US market, she says that although all large and mid-sized banks and a growing number of small banks offer online banking, their offerings are far from equal. User-friendliness is uneven, support varies, and features menu differ notably. Big gaps still exist with many small banks not yet offering online service and funds transfer capabilities. *"An intuitive GUI is essential for the online banking solution; the number of clicks needs to be reduced and user interface needs to be customer friendly."*

The Internet banking should ensure the performance of the application and highest degree of security. The online banking application should run with different applications like core banking applications etc. The e banking should be such that customer should get alerts through e-mail, SMS, voice, fax and Internet when any wrong operation occurs. Internet banking provides functions like account access, account history, and standing instructions, with features like bill payment and funds transfer. One more important attribute is an intuitive GUI is essential for the online banking.

Small Medium Enterprise (SME) are benefited more with modern form of the e-banking whether the SME is a Retailer, Wholesalers, a Supermarket, Real estate developers/owner, Self employed professionals, Garage Owners, Small manufacturers, a Hotel/Hotel Chains owner, Restaurants owners or mom-n-pop shops. The global economic slowdown and better potential for profits have forced the financial institutions to provide more services to SMEs according to their requirements. Separate setup of services / division within the current e-banking setup may increase potentiality in SME segment. Survey, shows the SME expects - The basic needs, the expanded financial offering and the value adds, download bank statements, transfer funds between own accounts or another account within the same bank, reorder cheques, request to open a deposit, view credit card statement etc from online banking.

Another segment of e-banking is Consumer-e-banking which provides internet and mobile solution for retail banking customers and a single unified view of the customer's relationship in the bank. Retail customers may get real-time access to their account inquiries, fund transfers, credit cards, mutual funds, payments etc.

Corporate-e-banking is a comprehensive corporate and small business banking solution, which provides the corporate banking relationships across asset and liability products, limits, trade finance and cash management.

Conclusion

Customer's expectations and demands for new, flexible services have raised with the developments in technology. Two such demands and expectations are E-Commerce and E-Banking. E-Commerce and E-Banking are results of technological development. There is no doubt that the E-banking concept is beneficial to both the customers and the bank. But present form of e-banking need some modifications like it should provide services like Decision making (Decision Support System) as far as the portfolio maintenance is concern, they should guide the customer for investments, a common cyber law is required for financial transitions is we need to make it global.

E-Commerce and E-Banking are two sides of the coin and therefore we cannot discuss the opportunities offered by E-Commerce without discussing E-Banking. Security is also a most important issue of the online banking to ensure the highest degree of security. The e-banking should be such that customer should get alerts through e-mail, SMS, voice, fax and Internet when any wrong operation occurs.

Therefore In our opinion the current form of E-banking services should consider global prospective the Security controls, Authentication, Losses from fraud, common cyber law and it should also include the features like DSS otherwise a day will come when the global IT industry will face the problem like Y2K in near future.

REFERENCES

- [1] Leon, Leon, Fundamentals of Information Technology, p27.1
- [2] Fundamentals of Information Technology, Leon, Leon, p27.2,3
- [3] Efraim Turban, Jae Lee Davd King, H.M. Chung, Electronic Commerce A Managerial Perspective, Pearson Education Asia
- [4] Efraim Turban, Jae Lee Davd King, H.M. Chung, Electronic Commerce A Managerial Perspective, Pearson Education Asia, p174
- [5] E-Banking EB Aug2003, FFIEC Examination Handbook

BIBLIOGRAPHY

1. Decision Support Systems and Intelligent Systems, Efraim Turban, Jay E. Aronson, Sixth Edition
2. E-Business Fundamentals, Santosh Kumar Gupta
3. Electronic Commerce, Dr. N. Janardhan(IIFT)
4. BankWorld Internet, The growth of Internet Banking, www.cr2.com
5. Computer Application in Management, Sanjay Saxena, Prabhpreet Chopra
6. The Hindu Speaks on Information Technology, Hindu Publication 1993
7. The Next Wave of Internet Banking website
8. Express Computer, Weekly Insight for Technology Professionals