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Information Technology is among the decisive technologies for the 21st Century. Achieving total customer satisfaction, by applying I.T. concepts as a strategy in any area, is attracting much attention nowadays in the global market. E-Commerce has become an infrastructure element of any business and will give rise to new kinds of business. Using E-Commerce as a medium, a corporate can reach the target customers in a different way. From a buyer-seller perspective electronic commerce can be used in all the phases of a commerce transaction. Electronic commerce systems can be of significant value as a level for new customer management strategies.

Information Technology is a synthesis of computers and communication. The steam engine and rail road were the determining technologies for the progress in the 19th century, while automobiles and high ways were the decisive technologies for the 20th Century. On the other hand, Information Technology and highways are the decisive technologies for the 21st Century. Today's business front is fraught with stiffer competition in the face of growing globalisation. An active sorting of defences as well as exploitation of internal strength are now gravely called for to steer our country from poverty, deprivation and illiteracy prosperity and growth under unprecedented challenge to change and fierce competition the world over. To achieve world market dominance or simply to be in tandem with those considered world leaders, have to jump aboard the band wagon of quality and excellence which however is a dynamic exercise and now must commerce from learning centres- the schools, the colleges and the universities.

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These learning centers have an onerous responsibility to develop students: the future custodians of the country. By using this concept and quality management can achieve target very fast in the fast changing global market. Quality management is the method of doing business by which a Company can sustain itself, i.e., generate revenue. The quality model spells out how a company makes money by specifying where it is positioned in the value chain. Achieving total customer satisfaction, by applying I.T. concept as a strategy in any area is attracting much attention now a days in the global market.

The Information Technology Act, 2000 received the assent of the President of India on 9th June, 2000, and came into force with effect from 17th October, 2000, vide GSR 788(E). The Act is "an Act to provide legal recognition carried out by means of elections data inter change and other means of electronic communication, commonly referred as 'electronic commerce' which involves the use of alternative to paper based method of communication and storage of information, to facilitate electronic filing of documents with the Government agencies and further to amend the Indian Penal Code, the Indian Evidence act, 1872, the Bankers books Evidence Act, 1891 and the Reserve Bank of India Act, 1934 and for matters connected therewith or incidental thereto."

Objectives

To harness the advantages offered by the State of Uttar Pradesh and to place it on the global map of it as the new Silicon Valley of India, a proactive, responsive and action oriented IT Policy is being formulated. The objectives of the policy are as follows:-

1. To accelerate development of IT industry in the State and increase in both domestic and export earning in the software and hardware sector.
2. To create a SMART Government. Smart Government means-use of IT for speedy, transparent, accountable and efficient conduct of the Government systems and services.
3. To encourage and accelerate the use of IT in schools, colleges and educational institutions in the State, to enable the youth of the State to acquire necessary skills and knowledge of IT, thereby making them highly employable. The IT Sector will be developed in order to provide increased employment opportunities.
4. To bring IT within the reach of the common man and make it useful to his daily need.

Any business [Manufacturing Sector or Service Sector] has a primary objective of making profit and increasing the wealth of shareholders. In order to quantify these

objectives, have two popularly used instruments, that is, Balance Sheet and Income Statement, former measures the strength of company and latter measures the efficiency of the operations. In order to achieve these objectives, Corporate Sector adopts the strategy which may include multiple options for targeting the various different aspects of objectives. Forming a Quality model in order to achieve better profit and growth is an example of one of the strategies. Appropriate model leads to high corporate performance. E-Commerce has become an infrastructure element of any business and will give rise to new kinds of business. Using e-Commerce as a medium corporate can reach the target customers in a different way.[2] e-Commerce can be defined as:-

(i) 'Doing business over Internet and electronic medium'. e-Commerce is changing the business rules of traditional pattern, [3-4] Corporate can take it as a technological advantage or as a business opportunity, but either way it has direct impact on business.

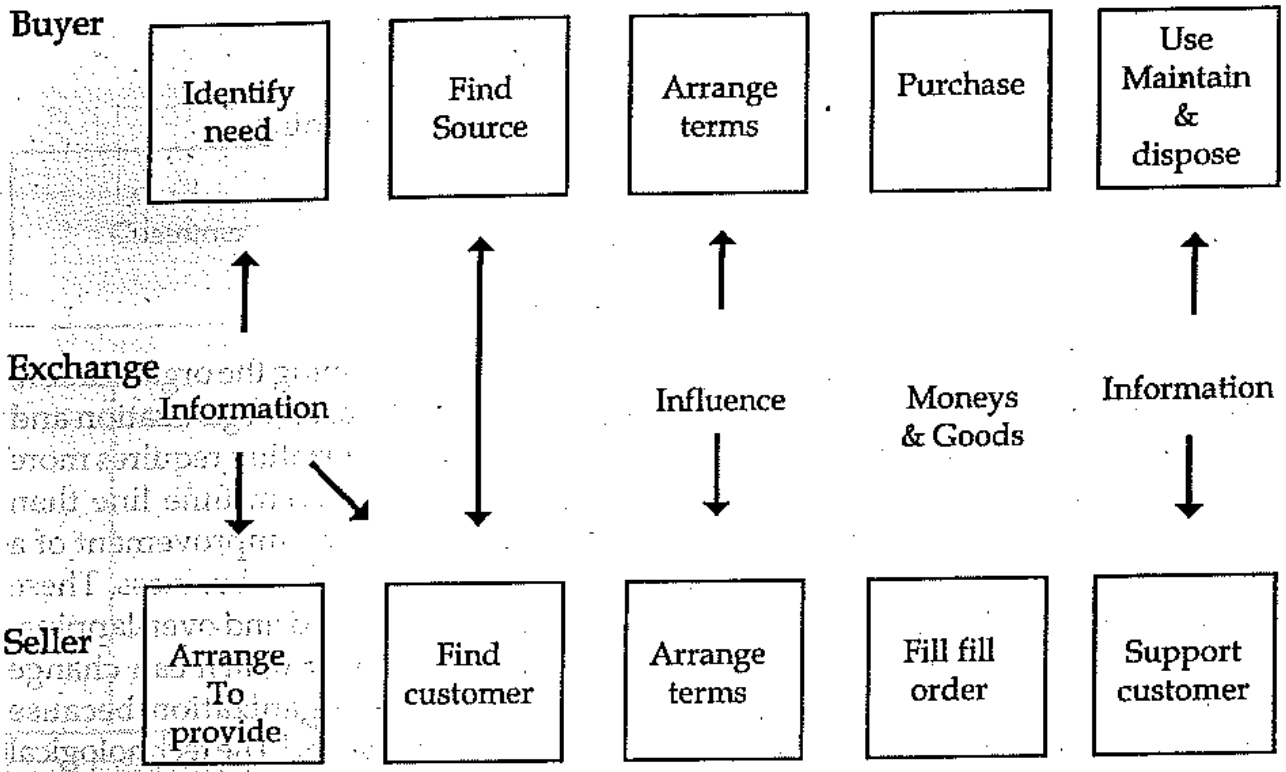
(ii) 'The buying and selling of information, products and services via computer networks' would extend the definition by including the 'Support for any kind of business transactions over a digital infrastructure'. These match with the broader use by some companies of e-Commerce. For example, Silicon Graphics, a global manufacturer of high-end computing equipment, uses its presence on the World-Wide-Web as a way to provide information to its customers (Access to product, brochures and price lists), as a marketing tool (Allowing a customer to contact a sales office), as a sales channel (On line ordering of software products), and as a support line (Making available software patches and frequently asked questions and answers). Another example is the recent introduction by the Bank of America of financial data exchange transactions over the Internet.

From a buyer-seller perspective (Fig.-1) electronic commerce can be used in all the phases of a commerce transaction. Electronic commerce systems can be of significant value as a level for new customer management strategies, mainly because they

- Directly connect buyers and sellers,
- Support fully digital information exchange between them
- Suppress time and place limits,

- Support inter activity and therefore can dynamically adapt to customer behaviour
- Can be updated in real time, therefore always up to date

Figure-1
e-Commerce Model



Process Flow

A common way to evaluate the value of the Web is to look at the potential of selling products or information on line. However, restricting the value of electronic commerce to direct sales only ignores a major part of the business value. Evaluated by direct sales only, the Internet as a distribution channel cannot compete today with other direct marketing channels. It is estimated that in the United States sales on the internet in 1995 totalled 200 million $ US, while conventional direct sales by catalogue, phone and TV totalled 60 billion $ US. Making money from direct sales is certainly the first way of getting value out of electronic commerce. The Table-1 describes the components of that business value.

Table –1

The organization source of business value

1. Improve it	-	Product information
	-	New sales channel
	-	Direct Saving
	-	Time to market
	-	Customer Service
	-	Brand image
2. Transform it	-	Technological and organization learning
	-	Customer relations
3. Redefine it	-	New Product capabilities
	-	New business models

Three "Super Categories", improving, transforming and redefining the organization, measure the amount of change in the global business model of an organization and the impact in terms of business results. Transforming an organization requires more creativity, more work, an additional level of risk and a different time line than simply improving it. It should be noted that, in some cases, an improvement of a business component will actually lead to a redefinition of the core business. These super categories should be understood to be flexible, inter-related and over-lapping. But in real sense, these are quality standards of management which can change over a period of time as per need of the customers by organization because technology in electronics dimension has a life of one to three years.[5] The technological advancements dictate the business practices in new era of electronics commerce. In order to compete with the technological advancements, an existing corporate need to design strategy which is saleable and benefits over a long run.[6]

Electronic Money:

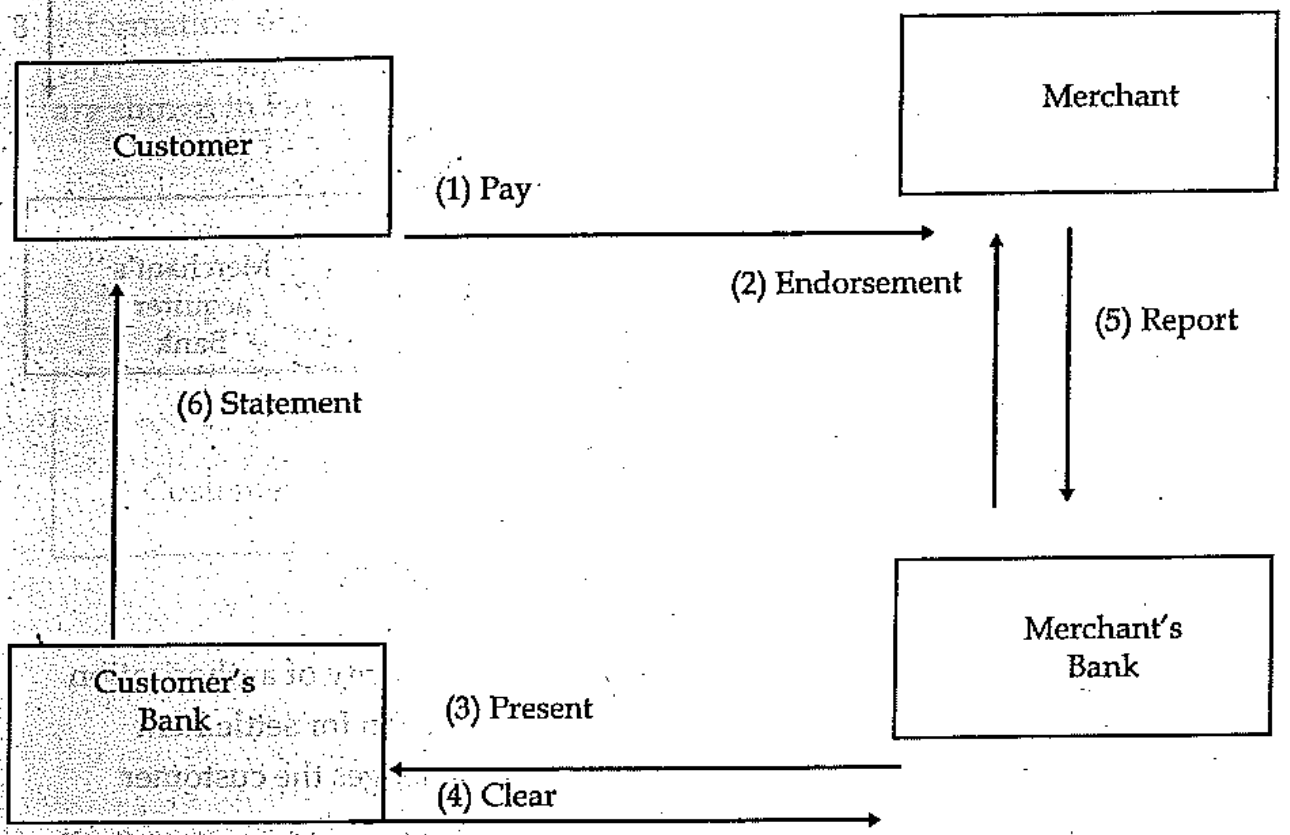
The basic objective of any trade or business is to earn money through fair means. Like many other tools of civilization, money is considered as the medium of exchange between any transaction, especially in business. The electronic money is an important factor in this new IT age of commerce or business. The money transaction between sellers and buyers can be settled in following three ways:-

1. Traditional Money
2. Credit Cart
3. Electronic Money

Since the advent of banking in the middle ages, bank, customers have used paper based instruments to move money between the accounts. The typical conventional checking procedure is shown in Fig.2. This model works equally well when there is a negative balance in consumer's accounts if the consumer's banks extend credit. This model represents existing pattern of payments through banks, that requires manual coding of banks, signature verification etc. Transporting, protecting and refreshing coins and notes becomes costlier. Also, there is a possibility of forging of coins.[7]

Fig. 2

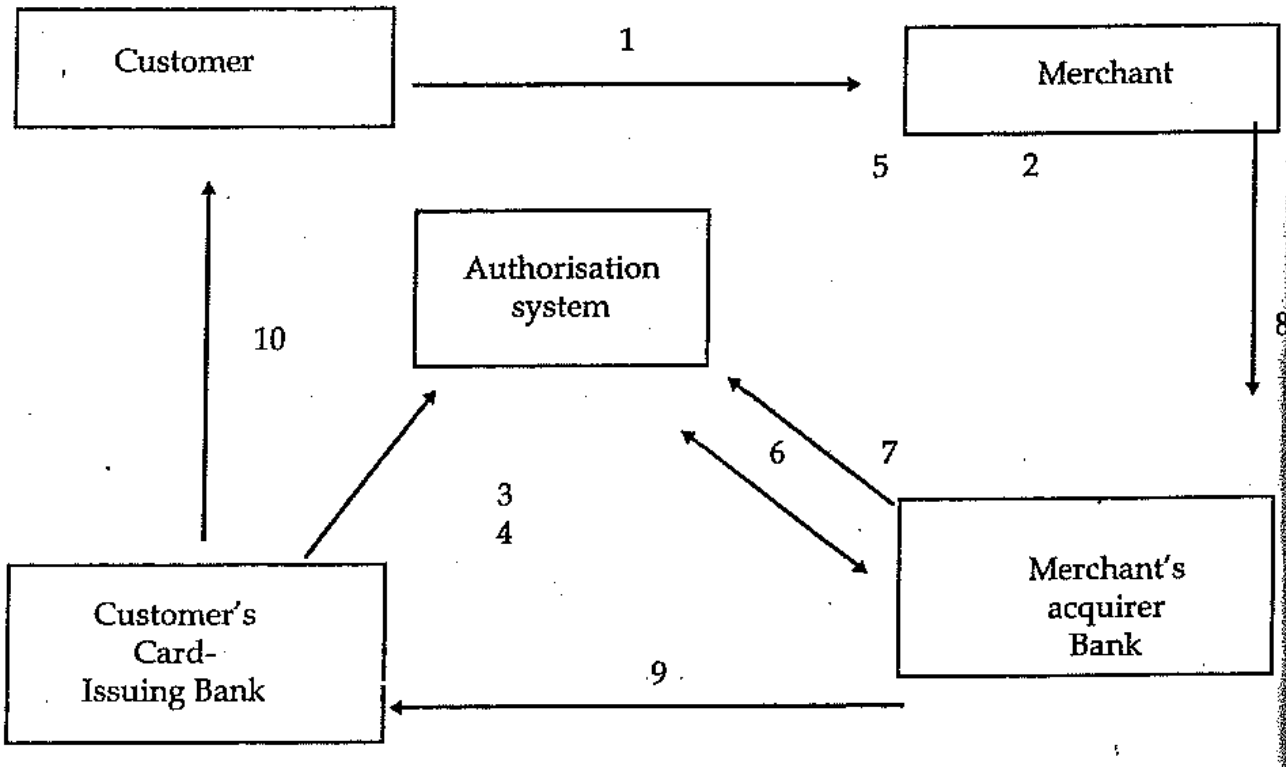
Conventional Settlement System



The Credit Card (CC) system was designed to provide immediate gratification of the wants of consumers by allowing them to purchase goods or services on the credit. In a card present transaction, the merchant validates the payer's signature by matching the one on the back of the card against the one or the charge slip. Consumer is provided with a carbon copy of the slip to protect the integrity. The card associations such as Visa & Master Card handle settlements. The details of transaction flow in a Credit Card System are shown in Fig. 3.

Fig. 3.

Model for Credit Card Transaction Settlement System



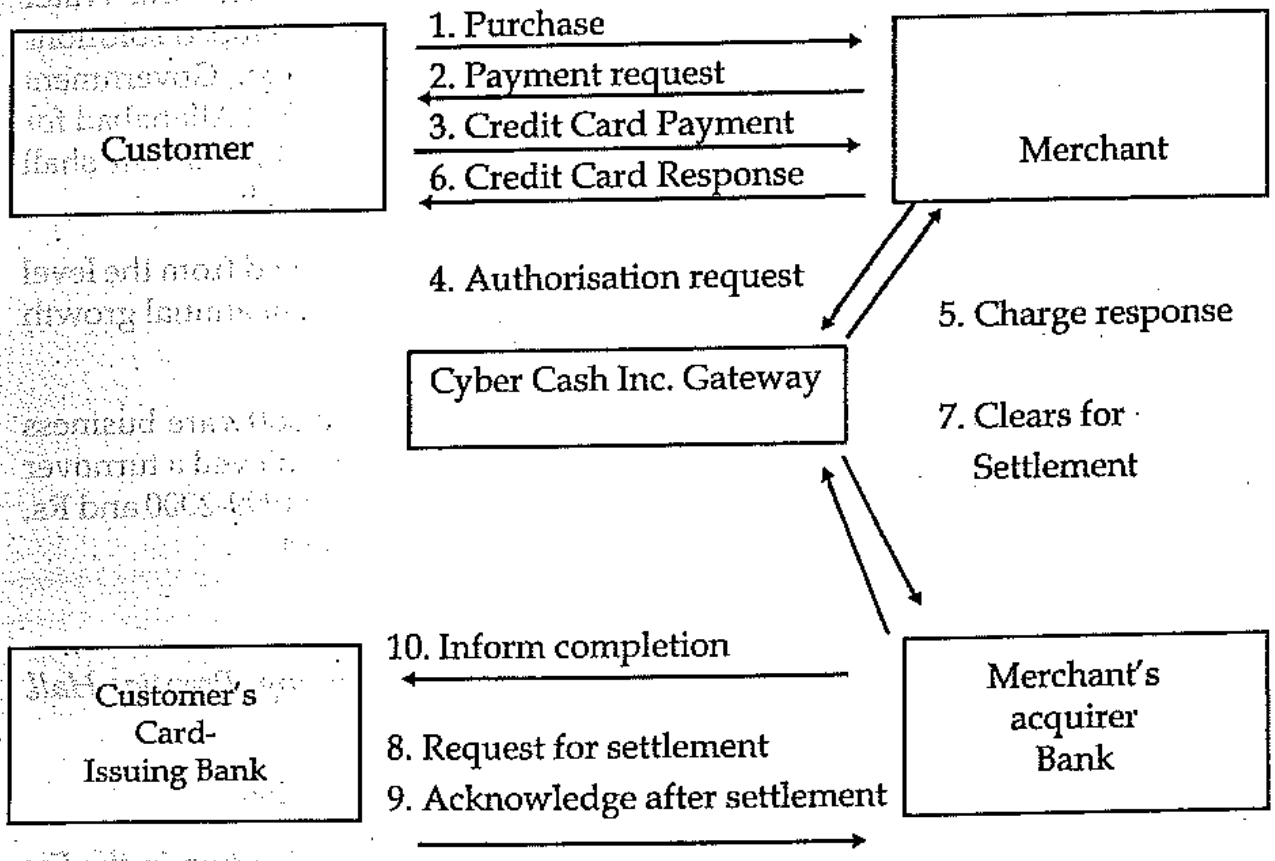
1. Present Card
2. Seeks Authorisation
3. Request for approval
4. Clears
5. Receives Authorisation
6. Informs Authenticity of authorisation
7. Acknowledges
8. Submit transaction for settlement
9. Settles the amount
10. Acknowledges the customer

Translating cheques or credit card transactions to the Internet requires finding electronic and business model equivalent to the functions described above. Signatures and confidentiality are biggest problems in creating digital payment instruments. These issues are handled by the use of cryptography. The use of public-private-key pairs allows a message to be signed digitally and verified by one who has the public key. Most payment systems require special consumer and merchant software to process the electronic payment message: Electronic Wallet (EW) is one such consumer software which acts as an electronic cheque book for signing orders, managing keys, performing cryptographic operations, and formatting messages, as well as acting as a check register for keeping track of transactions.

The Cyber Cash Inc, Reston Va. implemented a system for protecting credit card on the Internet in April, 1995. [7] This system was one of its kind. The company provides software to both consumers and merchants, operates a gateway between the Internet and authorisation networks of the major credit card brands. Both consumer and merchant work on Wallet software, which supports encryption and transaction record keeping. Messages are encrypted using random symmetric key, which in turn included in the message encrypted under the recipient public key. The Cyber Cash public key is built in the wallet and merchant software. Consumers generate a public key is sent to Cyber Cash, where it is maintained in a database. Consumers, merchants, and Cyber Cash have public-private-key pair, whereas only Cyber Cash has everyone's public key. As a result, Company can exchange information securely with consumers or merchants through Cyber Cash which verifies the signatures. The detailed transaction procedures in Cyber Cash System are shown in Fig. 4.

Fig. 4.

Cyber Cash Gateway Model



In addition, Visa & Master Card jointly launched a standard protocol, called Secure Electronic Transaction (SET) protocol to process credit card transactions in the Internet. It works in the similar way to Cyber Cash Gateway except some changes, distribution of authorities for public key in a hierachial manner.

The State of Uttar Pradesh has already undertaken necessary measures so as to reap the benefits of Information Technology by creating an independent IT and Electronics Department in the Government and being first state in the country to a responsive and action oriented IT Policy in the year 1999. One of the main objectives of the State Government's IT Policy is to create a SMART Government of U.P. and is committed to use IT for speedy, transparent, accountable and efficient conduct of government systems and delivery of services.

In compliance with IT policy the government has commenced digitization of land records with the support of IIT Kanpur, and also proposes to develop world class GIS solution for land records and watershed management. The Government have fully computerized treasuries and all payments of pensions and scholarships are made through computerized cheques. It is an important tool in fiscal management and audit functions. Other departments with similar citizen interface such as Trade Tax and Registration, Food and Civil Supplies, Transport, Electricity and Water Utilities, Urban Development Authorities and Tourism have developed solutions based on Information Technology. Besides these activities in IT Sector, Government has established, Indian Institute of Information Technology (IIIT) at Allahabad for imparting higher education and training in the field of IT areas. This institute shall certainly contribute for the growth of e-Commerce in Uttar Pradesh.

The world market for IT products in hardware and software jumped from the level of US $ 1081 billion in 1996 to US $ 1814 billion in 2000. The present annual growth rate in most of the developed countries is 10% to 20%.

The growth rate of Uttar Pradesh in the area of hardware and software business compares favourably with the country's growth rate. The State achieved a turnover of Rs. 1300 crores in the year 1998-99, Rs. 2800 Crores in the year 1999-2000 and Rs. 3568 Crores in the financial year 2000-2001 in the software export.

References

1. Charles T Horngren, *Introduction to Financial Accounting, Prentice Hall, 1998*
2. Peter Finger, *Enterprise e-Commerce, Meghan Kiffer Pr, 200*
3. D. Tap Scott, *Blueprint to the Digital Economy: Wealth Creation in the Era of e-Business*

4. P. Richard May, *The Business of e-Commerce: From Corporate Strategy to Technology, McGraw Hill, 1998*

5. K. Harry, Jaction, Jr. *Achieving the Competitive Edge: A Practical Guide to World Class Competition, John Wiley & Sons, 1996*

6. Stephen Red Wood, *Action Management: Practical Strategies for making your Corporate Transformation a Success, Jhon Wiley & Sons, 1999*

7. Edward W. Kelley Jr, *The Future of Electronic Money: a regulator's perspective, IEEE Spectrum, Feb, 1997.pp.21-30*