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Strategic Information System: A source of Competitive Advantage

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Abstract
This literature review highlights the importance of Strategic information system (SIS) in business strategies. Strategic information system helps organizations to develop their generic strategies in order to attain competitive advantages. On the other side, Literature review focus on the business model and the role of strategic information system and highlights the role of information technology in the competitiveness of business model and the role of information technology in business process re-engineering. This literature also highlighted the importance of information technology in the development of Virtual organization.
Keywords: Strategic information system, Information Technology, Business Process Re-engineering, Virtual Corporation, DEL

1. Introduction

According to Online Etymology Dictionary, Strategy came from Greek Word "*strategia*" meaning "art of troop leadership, Generalship, Command." People perceive Strategy as the Plan of Action or Roadmap (Mintzberg, H. 1987). In war, it's considered as the plan of action designed to achieve complicated goals (Henderson, B. D.1989). Most of disciplines including Management sciences borrowed that word. Business Environment is more competitive today and war exists among companies (Hamel, G., & Prahalad, C. K. 1989). Business people devise such a course of actions or strategies to win the game just like war but now the business people devise plan to create and grab new opportunities. However, Information systems are built to resolve problems and on the other hand information systems are built to grab opportunities (Ward, J. L., & Peppard, J. 2002). . It is very difficult to create opportunity instead of identifying problems. To find opportunity, organization need intense amount of vision and creativity to identify and seize opportunity (Oz. E. 2008). Information systems that grab opportunities are called Strategic Information Systems (Hemmatfar, M., Salehi, M., & Bayat, M. 2010). In other words SIS is defined as the "information system that support or change the enterprise's strategy" (Hemmatfar, M., Salehi, M., & Bayat, M. 2010). Strategic management is a technique that management adopts for long term planning and the information system that support long term decision making in sense of information and assistance. The term Strategic means long term planning to achieve long term benefits (Turban et al., 2006). Hence, the objective of the piece of work is to highlighted the benefits of strategic information system in order to take competitive advantage.

2.Advantages of Strategic Information System

Most strategies not contain information system but increasingly, organizations are able to create and implement strategies like Customer Management, Cost Reduction and Increasing sales etc to get competitive advantage over its rivals (Ward, J. L., & Peppard, J. 2002). Creative use of Information system helps organizations to create and maintain better position in marketplace and maximize its strength (Oz, E. 2008). A company can get benefit through the strategic use of Information system. Strategic information system enables organization to get competitive advantage through number of ways and increase its market share. Turban et al., (2006) introduces these seven factors to indicate the importance of strategic information system.

a. Cost Reduction

Information Technology research suggests that information technology and internet reduce the cost of processes, communication and to change the business theme (Porter & Millar, 1996). According to Bloch et al (1996) information technology reduces the cost of promotion, distribution and communication. Furthermore the cost reduction in distribution channels enables organizations to reduce the cost of inventory (Fruhling & Digman, 2000). Due to the expansion in information technology, organizations are able to achieve cost leadership strategies by providing breakthrough services (Ghosh, 1998).

Consumer pay price for certain quality and seek better quality in lower prices or seek better value in lower prices. Product or services is the combination of benefits a firm offers in exchange process (Woodruff, R. B. 1997). "Consumer perceives value" suggests the evaluation of a consumer about all the benefits and costs associated with the products and perceive alternatives (Kotler, P., & Armstrong, G. 2001). If company offers a product or service having competitive quality in low price, consumer perceives value should be high. One best way to increase share is to lower prices and we can achieve it through cost reduction and through Economy of Scale. Only way to transfer the benefit of cost saving to customer is process automation (ter Hofstede et al., 2009). Japanese uses first time robotics in their assembly line just to reduce cost and make organization more productive (Cusumano, M. A. 1992). Until their competitor employ automation technology in their plants, Japanese companies had competitive advantage and selling high quality products at lower prices (Cusumano, M. A. 1992).

In services, Companies uses information system to improve their services (Pitt, L. F., Watson, R. T., & Kavan, C. B. 1995). Domain name enables companies to provide detailed information about company services and empower consumers to most of the services. Through information system consumer are able to perform their most of the tasks Like ATM and Web Banking in banking sector, tracking system in Courier services etc. It enables organizations and consumer to interact easily. Through information systems, organizations are enabling to provide 7 days a week and 24 hour a day services to their consumers without manual labor.

b. Barrier to Entry

Profitable industries are act like magnet for new investors (Porter, M. E. 1980). When numbers of competitors are increases, competition shifted towards price and the profit margin decreases (Porter, M. E. 1980). Therefore, organizations are might gain advantage over competitors by offering services difficult to imitate. By using core competencies and strategic technology that might be expensive and difficult to handle to others, provides sustainable competitive advantage to the company (Porter, M. E. 1998). Companies create barriers through number of ways like patents and trademarks, Copy Rights, Domain names, Business model, Business processes, supply chain, distribution channel, firm size, cost advantages independent to size, product differentiation etc (Porter, M. E. 1980). New entrants bear high cost to enter in the market. For example DELL supply chain management embedded with information system that handles most of their tasks that handle information, material and Money. They apply Just in time inventory system (JIT) and eliminate middle man from their distribution channel and save inventory cost and distributor commissions through the help of Information system. Through Information system they supply low price and state of the art computer to their customers. The Supply chain management of DELL Inc. creates barriers to new firms (Barringer, B. R. 2008).

c. Switching Cost

It’s a fix cost a bear to stop buying from one firm and switch to others (Barringer, B. R. 2008). The cost a firm bears in the form of plenty is called explicit cost and the cost a firm face in the form of time and money spend on adjustment is called implicit cost (Klemperer, P. 1995). Many suppliers are providing Order Processing Systems to their buyers to handle routine orders. To switch from one supplier to other supplier may bear cost in terms of money and time because Money and Time required learning new Information systems.

d. Create Unique Product and Services

By the help of information technology, organizations have opportunity to experiment with new product, services and processes (Bloch, 1996). Creation of new product and services provides great competitive advantages. The competitive advantage remains unless and until other organizations in industry offer a similar and identical product at comparable prices (Porter, M. E. 1998). Lotus was market leader unless and until the Microsoft Excel with better features. Microsoft Excel not becomes market leader only through aggressive marketing but through its features (Evans, D., Nichols, A., & Reddy, B. 2002).

Other Example includes eBay. The firm is dominant player in online auction. Firm got first mover advantage and became very popular in online auction. Through First Move Advantage firm collect numbers of subscribers and now have million of active users and difficult to competitors to copy the services and processes (Barringer, B. R. 2008) but First mover advantage not always guarantee for sustainable competitive advantage. Netscape was pioneer in web browsing but after built-in version of Internet Explorer by Microsoft, the market share of Netscape diminished (Oz. E 2008).

e. Product Differentiation

Information technology helps organizations not only to differentiate itself through price but differentiate itself through innovation, customer service and through processes (Bloch, 1996). Additionally, smith (2000) describes information technology as the competitive weapon against rivals through creating strong brand image.

Product differentiation means to make their product better than competitors (Holcombe, R. G. 2009). It provides values better than customer (Holcombe, R. G. 2009). It does not mean values only in term of Quality, but values in term of features, Status, Ingredients, Brand Names or anything that make product unique (Kotler, P., & Armstrong, G. 2001). On the basis of differentiation, consumer ranked brands in their minds which helps consumer to purchase brand on the basis on their preferences (Kotler, P., & Armstrong, G. 2001). Companies also differentiate their selves on the basis of processes and service delivery. With the help of Technology, most of the companies managed their Supply Chain effectively and efficiently. With the help of strategic information system, Dell creates its business process and supply chain more strategic.

f. Product/Market Enhancement

A firm growth strategy includes its market and product expansion to increase market share and information technology facilitates firm growth strategy (Fruhling and Digman (2000). On the basis of Information technology, firm are able to target its inter market segments and operate globally.

With the help of Strategic information system, organization can enhance their product and services more effectively. For Example, National Database and Registration Authority (NADRA) was developed to handle the Computerized National Identity Card (CNIC) but with the passage of time, with the help of Strategic Information system NADRA is able to extend its services towards Weapon registration, e-Toll Motorway service, Motor Vehicle Registration, Afghan Registration, and having hundreds of projects. NADRA providing it services to all the banks of Pakistan, Diplomats, Security agencies, Passport services etc (source: www.nadra.gov.pk).

Amazon was first introduce their services in book selling but now they are selling computers, jewelry, Garden tools, Grocery, health products and industrial products.

g. Create Alliances

When the firms are expanding it geographically, Information technology helps organization in various way. Information technology helps organizations to maintain inter relationship to achieve competitive advantage (Porter & Millar, 1996).

In past, companies operate separately but now a day's companies operate with alliances through Strategic information system like in Airline industry (Elmuti, D., & Kathawala, Y. 2001). Now airline industry has combined services with car rental firms and hotel chains and offers a bundle of services. Banks alliances with VISA offer their customer to purchase products worldwide and online without any hassle.

Walmart, World largest retail store having more than eight thousand branches in approximately fifteen countries. P&G strategic alliances with Walmart to maintain its product inventory. When the record for inventory reached to the customer, P&G maintain its inventory according to the area and demand. The track system helps Walmart to reduce the burden of inventory management (Varadarajan, P. R., & Cunningham, M. H. 1995).

3.Role of Information Technology in Strategic Information system

Due to emergence of Information technology, number of businesses had to change their business model and convert their selves towards information technology oriented Business Model to take advantage over their competitors (Teece, D. J. 2010). We should analyze the role of information technology in strategic information system and business model through the case study of DELL inc from the book "Entrepreneurship: Successfully launching new Business by Bruce R Barringer'.

DELL, a giant in computer industry was started by a college boy Michael Dell from his dorm room. At the time the computer were distributed in models and customer don't have facility of customization. In 1985, Michael Dell offer customized personal computers to the market by offering "Built to order". Very next year company generated $70 million sales and reached $500 million in next five years. In the year of 2000 the sales were $25 Billion. The sales climbed not due to customized computers but other strategy Dell adopt in their distribution channel and supply chain management.

Dell changed its strategy due to two reasons. First reason was described by the Michael Dell"I would read in industry publications that Intel had this new superfast processor, but the best one I could buy in the market was only half that speed". Second problem Michael Dell face in computer industry was the high difference in manufactured price and retail price due to distributor margin. Consumer was paying $2000 for the components of $600. These two problems exist due to the traditional business model organization followed in computer industry (see Figure 1). To resolve these two problems, Dell had to change its business model with the help of Strategic information system.

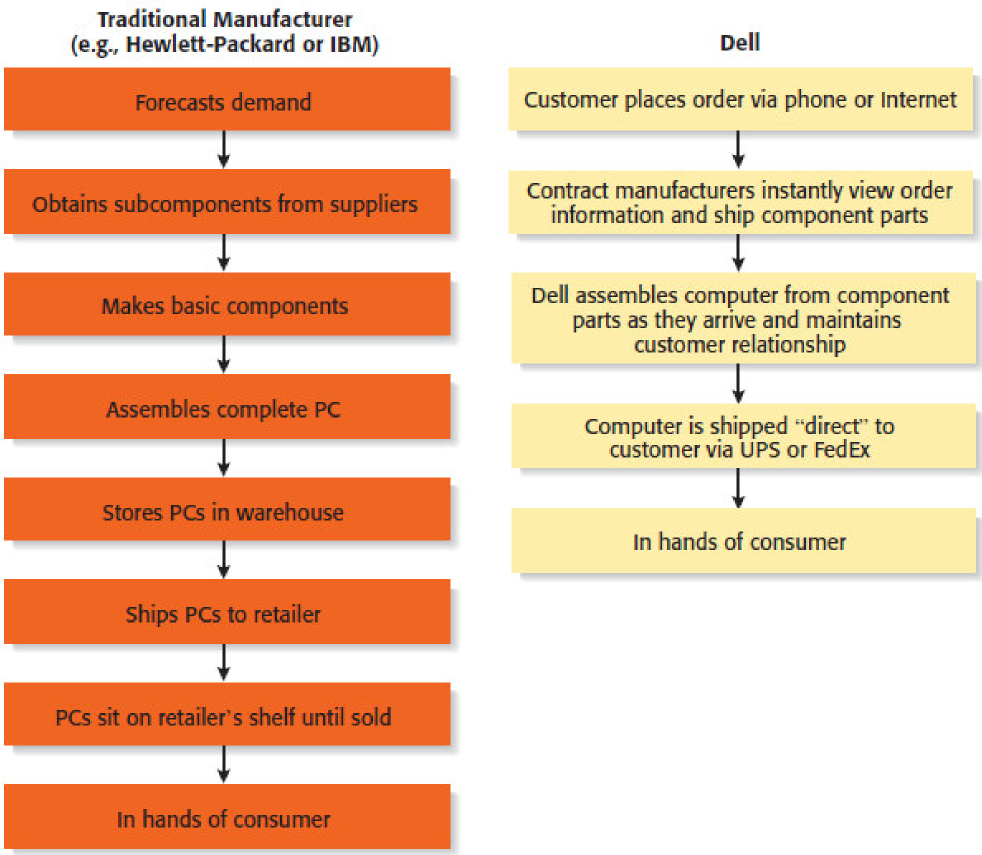

Figure 1: Traditional business model and Dell business model

Source: - Entrepreneurship: Successfully launching new Business by Bruce R Barringer

World best companies are using strategic information systems to gain competitive advantage (Hemmatfar, M., Salehi, M., & Bayat, M. 2010), Dell is one of them. It established itself as the world top third company. The ball in the court of Dell due to the change of IT oriented business model. The Information technology based information system handles most of its tasks (Kraemer, K. L., & Dedrick, J. 2001). The new business model is totally dependent on Information Technology. Dell winning strategy is the inventory management. Just in Time system helps Dell to reduce inventory cost. Whenever, customer books order through electronically, Dell information system share information of components to its suppliers located in the area from where the order placed (Kraemer, K. L., & Dedrick, J. 2001). The components are delivered to the Dell Warehouse located near to the customer and assembly is done. After all, Order is delivered to the customer through FeDex, UPS and PIOLET. The online tracking system equipped customer to track its order (Kraemer, K. L., & Dedrick, J. 2001). All it is possible due to the information Technology infrastructure.

4.How Information Technology helps Dell Supply chain management

Each of the components is heavily influenced by information technology. Supply chain management consists of handling information, money and material (Shukla, R. K., Garg, D., & Agarwal). Information technology helps Dell to manage its Supply chain smoothly. Here we will discuss the parts of Dell Supply chain management and analyze how information technology helps to manage Dell's supply chain.

a. **Product configuration Management:** Dell configuration management handles approximately one million parts related to over two hundred product families per year. It also maintains over two million materials bills per year. It records all the part details (Collier, D. A., & Evans, J. R. 2011).
b. **E-Procurement:** Dell information system handles approximately two million purchases from approximately five thousand suppliers worldwide. Dell uses automated handling system to handle supplier communication. It also handles location wise ordering system. It contains the facility of warranty and guarantee claim (Collier, D. A., & Evans, J. R. 2011).
c. **Cost:** Information system of dell having the facility to handle to calculate the cost on periodic basis in batches. It calculates total material cost (Collier, D. A., & Evans, J. R. 2011).
d. **Inventory Management:** Dell inventory management system equipped with inbound logistics and outbound logistics. It handles three million assembly line inventory movements on daily basis. It also

transmits three million messages to various systems for scheduling (Collier, D. A., & Evans, J. R. 2011).

e. **Credit Payment:** Dell information system handles approximately fifteen thousand transactions per day which includes payments of suppliers and vendor. It maintains the information about every supplier, contact detail, Location detail, terms and conditions etc. Information system periodically, based on weekly, monthly or quarterly basis (Collier, D. A., & Evans, J. R. 2011).

5.Information Technology and the Service Firms

Information technology not only helps not only manufacturing firms but to help services firm accordingly (Davenport, T. H., & Prusak, L. 2000) like Logistics (TCS and FeDex) Banking (MCB, Alfalah, Askati and UBL) and trade exchanges. In banking system millions of transactions are made on daily basis. Information technology helps banking system to transfer money without the transfer of notes. ATM allowed consumer to avoid the burden of heavy cash. Information Technology enables paper less banking (Jayawardhena, C., & Foley, P. 2000).

On time and safe delivery is most important for supply chain. Most of companies provide logistics facilities to the organizations. Organizations outsourcing logistics to 3PL, (3^{rd} Party Logistics), optimize their delivery channels (LEWIS, I. A., & Talalayevsky, A. 1997). Third Party Logistics provide services domestically and internationally (LEWIS, I. A., & Talalayevsky, A. 1997). FeDex is the 3PL provider to Dell. FeDex collect the shipment from Dell and assigned it barcode and update information towards its database. The shipment is tracked form pre-delivery to intermediate warehouse through barcodes. Global Positioning system tracks vehicle on real basis. All the information system is based on the information technology helps customers to track their exact shipment location (Heidtmann, V. 2008).

6.Role of Information Technology and Competitive Forces

Organization profitability and performance affected by two factors. First one is the Firm Specific factor includes the resources under firms control like assets, finance, production, intellectual properties etc (Barringer, B. R. 2008). On the other hand, there are some industry specific factors that affect profitability (Barringer, B. R. 2008). Michael Porter defined industries specific factors in terms of competitive forces well known as Competitive Forces Model (Porter, 1985). Model defines the company position in the market. The five forces in the model can be generalized as

1. Industry Rivalry
2. Potential new entrants
3. Substitutes
4. Bargaining power of suppliers
5. Bargaining power of Buyers

Porter;s model specifically related to industry. Industrial trends changes rapidly and industry models shifted towards automation. Someone suggest information technology related changes in porter model but porter argues that internet does not change the model but its tool to get competitive advantage (Hemmatfar, M., Salehi, M., & Bayat, M. 2010). It’s not apart from business operations but its only boost operations.

Now we analyze the role of internet on porter five forces model suggested by Michael Porter in 2001.

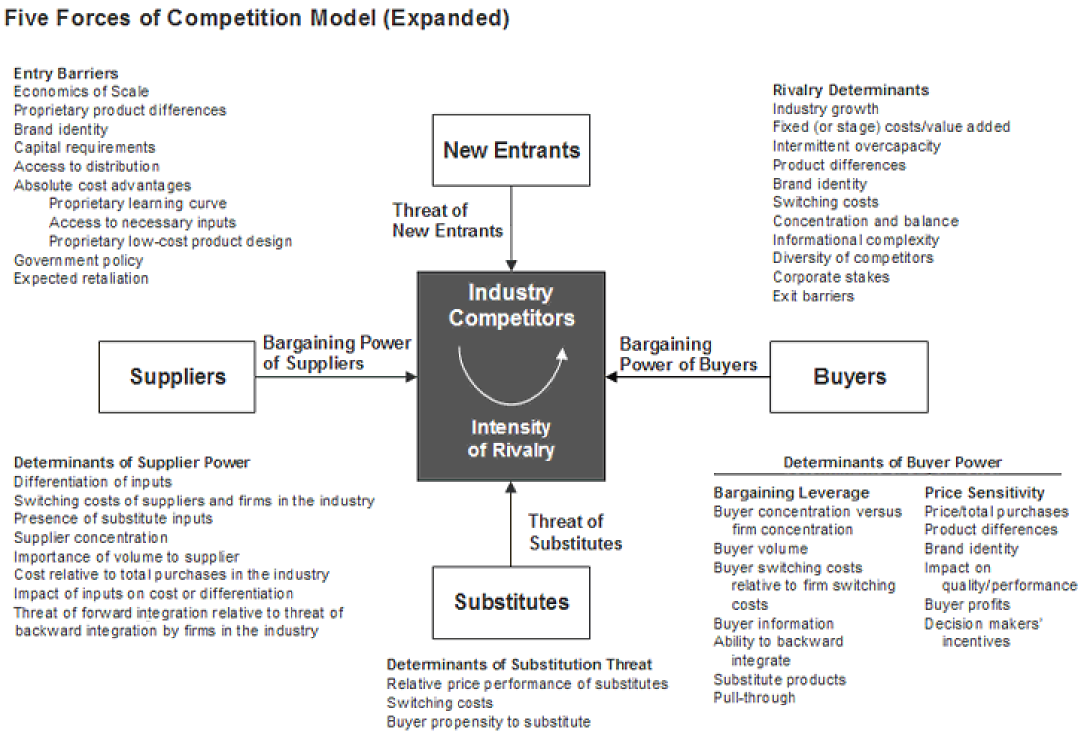

Figure 2:- Porter's Five Forces Model

a. The Threat of New Entrants

Internet increases the threat of new firms. Internet allows organizations to expand geographically (Berger, A. N., & DeYoung, R. 2001) and logistics system equipped organizations to access on foreign markets (Jiang, B., & Prater, E. 2002). By the emergence of internet, the concept of brick and mortar store shifted towards click and mortar store (Enders, A., & Jelassi, T. 2000). Websites and E-Commerce along with VISA allowed customer to purchase worldwide through any location, creates threat for new firms.

b. The Bargaining Power of Suppliers

Internet allowed business to find and compare suppliers (Barua, A., Konana, P., Whinston, A. B., & Yin, F. 2001). By the emergence of Information technology, Supplier's bargaining power reduces (Clemons, E. K., Reddi, S. P., & Row, M. C. 1993). On the other hand information technology enables organization to lockup supply chain through internet and information systems and increases switching cost (Mishra, R. K). "Chemconnect.com" offer (B2B) services in chemical industry. On the site, business man can find lots of suppliers and best deals in chemical.

c. Bargaining Power of Buyers

Internet empower consumer to search information about product, services and companies (Butler, P., & Peppard, J. 1998). Access on information reduces the switching cost and buyers are able to easily find best prices. Information technology increases bargaining power of buyers.

d. Threat of substitute

Internet is threat for those firms that are information based. Information replace material goods like music, software's and books. Copyright infringement for that information viewed as danger for information based firms (Barringer, B. R. 2008).

e. Rivalry among existing firms

Internet enables organizations to access on information and reduces differences among organizations. According to Michael Porter, intense competition migrates towards prices. On the other hand, internet based organizations are divert their focus from specialized products to others like amazone.com was specialized in book selling but now it sells lots of products along with books (Rayport, J. F. 1999).

7.Information Technology and Porter generic Strategies

Michael porter proposed three generic strategies in 1985. A Porter generic strategy contains Cost leadership strategy, Differentiation strategy and Niche Strategy.

a. Cost Leadership Strategy

Cost leadership strategy can be achieved through reducing cost and by increase production of product and services (Jones, G. R., & Butler, J. E. (1988). A firm achieves cost leadership strategy through effective buying, production, delivering process (Ward, P. T., Bickford, D. J., & Leong, G. K. 1996) like Dell inc. Southwest airline is low cost airline in competitive industry. Southwest achieve economy of scale by optimal usage of its resources and cut other expenses (Barringer, B. R. 2008).

b. Differentiation Strategy

By offering unique product and services to customer, the company can achieve differentiation. Better products and services in term of Quality, features and values can charge higher prices (Tuominen, P). Dell differentiates itself through its supply chain management (Barringer, B. R. 2008).

c. Niche Strategy

In the strategy firms select narrow segments. Through this strategy firms are able to avoid direct competition. For example, “buyandhold.com” offers investment services to women, children and old persons having investment $10 (Barringer, B. R. 2008).

8.Business Process Re-engineering and role of information technology

Business Process Reengineering is the structural and process change in an organization. In business process reengineering technological dimension, human dimension and the organizational dimensions may change. Due to globalization and liberalization in trade, the business environment totally changed. Due to rapid change in business environment, competition increases dramatically. Competition in quality, price, value and experiences is growing day by day. All the changes in marketplace need transformation in organizations. Several authors have their own interpretation regarding business process reengineering. According to Hammer and Champy (1993) Reengineering is the achievement of dramatic improvement in business performance by redesigning business processes. Talwar (1993) viewed business process reengineering as the rethinking and restructuring the business structure, methods, processes and the relationships to achieve values. On the other hand, Business process reengineering considered as the concurrent change in the processes, organization and the information system to achieve improvements (Petrozzo and Stepper 1994). Lowenthal (1994), on the other hand describe BPR as the rethinking and redesign the of processes of operations and structure to focus on core competencies to achieve performance.

9.Business Process Reengineering and Tools

Different authors suggest different tools for the application of Business Process Reengineering. Those techniques included followings:

a. Visualization of Process

Visualization refers to the vision. End state should be kept in mind. According to Barrett (1994), the key for business process reengineering is vision.

b. Process Mapping

Process mapping includes the model of the reengineering. The process should be mapped in stages.

c. Change Management

Change management relates to the human side of reengineering. Some authors considered as the longest side (Bruss and Roos. 1993).

d. Customer Focus/Process Focus

Business Process Reengineering means to re construct the process and structure to improve the performance (Chang, 1994).

10.Implementation of Business Process Re-engineering in organization

a. Customer Orientation

First the business process reengineering focuses the customers need and wants. The objective should be creating value to the customers (Olalla, M. F. 2000). The strategic goal of BPR should be providing services by keeping in mind the customer orientation.

b. Empowering Peoples

Empowering people means to facilitate them in their work by providing right tool, information, space training and environment as well as the power (Rafiq, M., & Ahmed, P. K. 1998). Information system help employees and customers to access information they need along with providing employee training.

c. Information and Tools

Providing right information to the people on work is the primary purpose of the information system. Along with information they need tools for planning (Drucker, P. F. 1995). If the plans are submitted on papers, calculations might be problem for managers (Er, M. C. 1988). Information system equipped with tools allows managers to calculate and analyze the plans easily with reliability.

d. Training

Information systems are designed to support the employees on workplace when information is needed for desire work. Expert system enables information system to train the people online without taking months of training (Davis, D. L., & Davis, D. F. 1990).

e. Paper Work Reduction

Paper work contains lots of difficulties for employees like to handle bulky data in terms of management, recording and analysis (Barcan, A. 1955). On the other hand computerized data take less space as compare to physical space, comparison are easy, data transmitting are easy and easy to identify the patterns.

11.Information Technology and Business Process Reengineering

Business Process Reengineering and information technology dramatically improve the performance of the manufacturing firms by redesigning its internal system (Olalla, M. F. 2000). Information technology saves time and maintains accuracy of the processes (Marks, R. G., Conlon, M., & Ruberg, S. J. 2001). Information technology reduces the cost in terms of human errors.

Electronic Data Interchange is the exchange of data on computer and agreement of exchange (Banerjee, S., & Golhar, D. Y. 1994). It handles the orders and invoices in the exchange process (Hansen, J. V., & Hill, N. C. 1989). It also acknowledges the fund transfer and order delivery. Recent development in information technology and packaged software's make electronic data interchange software's affordable to small and large companies. Electronic data interchange software allowed organization to easily handle inventory, order processing, invoicing, replenishment and coordination with sales (Parker and McKinny, 1993).

Communication, internal or external, is vital for business. Electronic mail, World Wide Web, social media, online interaction messenger helps organizations to communicate internal or external in less cost. Advancements in information technology help organizations to attach most of the processes with computers.

Information Technology facilitate the organizations to handle the competition through reduce the time of communication and to access on suppliers and buyers information (Gunasekaran, A., Marri, H. B., McGaughey, R. E., & Nebhwani, M. D. 2002).In the latest decade, Resource planning software's provides organization a complete package to resolve its functional areas problems as well as to handle its all concerns. Resource software's are enables to manage the supply chain and logistics as well (Parker, 1994).

a. Strategic Process

As we discuss earlier about internal and external factor that affect organization. In porter forces we analyze the industrial forces that affect organization but some other factor also affect organizations like Government legislation, Environmental conditions, Economic situations etc (Jain, T. R., Trehan, M., & Trehan, R. 2009). While formulating strategies, those external factors also should keep in mind. Strategy is based on both external as well as internal factors. There need to handle a large number of data to manage strategy. Information technology facilitates organization to handle internal as well as external data through Expert system, Internet, and the data from functional areas (Alavi, M., & Tiwana, A. 2003). Accurate strategy needs accurate data. Information technologies facilitate managers towards accurate decision-making.

b. Product

The essence of reengineering is to gain the dramatic change in output came from processes and to achieve cost saving production (Hammer, M. 1997). Low cost information technology, powerful computer system liked with tools allowed companies to achieve its objectives (Loch, C. 1998). Product requires designing, manufacturing, and processing. All the functions are controlled through various information technology based tools like Computer Aided Design, Computer Aided Manufacturing, Quality function deployment, Computer Aided Engineering etc (Chang, C. H., & Lin, J. T. 1990).

c. Marketing and Sales

Powell, (1994) define marketing as the most information intensive business function. Now days, Marketing research is easy due to Information technology. Primary data collection is transfer towards Computer aided data collection, online surveys, and through E-mail without consideration of geographical boundaries. Interviewing techniques are shifted towards Skype, Messengers and through computer aided telephone. Computer based software's are able to easily analyze the data.

Now the sales persons are equipped with the tools to transmit order information to order fulfillment department. Computer based sales record informs organization personals about the trends in sales, forecasting and about the anomalies in sales.

d. Services

Most of companies outsource services because of cost reduction and focus more on core areas. Most of companies like Dell, HP etc outsource logistics services (Zhang, H. 2010). Outsource services objective is to improve performance (Elmuti, D). Apart from cost reduction, strategic alliance between two companies needs to redesign their processes and supply chain management activities.

e. Accounting and Finance

Accounting and finance includes costing, buying decision, capital investment decision, product mix decision, Economic order Quantity, cash flows etc (Horngren, C. T. 1967). Information technology and information system helps organizations to handle accounting and finance function effectively (Gupta, H. 2009). Through information technology, organizations are able to analyze financial and non-financial performance. Data regarding Global financial Markets are available on internet to effectively diversify our risk. In this regard, Expert system with technical analysis having Artificial Intelligence helps organizations to facilitate in decision making.

f. Human Resource Management

When the process is reengineered, what's happen with human resource? How they interact with each other and with reengineered process. Stillwagon and Burns (1993) introduce the concept of Human Performance Engineering. HPE is basically improves the human factor in the business process reengineering.

g. Virtual Corporation and Information Technology

According to the dictionary, Virtual Corporation is a business that exists on internet and totally relying on telecommunication and internet for operations. Virtual organizations are click and mortar stores instead of brick and mortar stores. Amazon was the pioneers in the virtual organization have introduced the concept of business without any physical retail store (Mellahi, K., & Johnson, M. 2000). Virtual corporations are scattered in different areas and meet only through email, internet and videoconferencing. Low degree of virtuality has been in the organizations having interaction with other organizations and employees work in traditional environments while a pure virtual organizations employee operate remotely and interact remotely. Ideal state of virtuality is rare but hybrid form of virtuality, organization processes are dependent on both traditional and virtual environment. Shifting towards virtual organizations affects both management and management relationship with other organizations. Relationship includes other firms, employees, customers and community. Virtual organization has temporary relationships. Transactions might be coupled (establish relationship) and decoupled (relationship termination) (Mowshowitz, A. 2002).

12.Approaches to Implement Virtual Organization

a. **Telecommunication:** Employees are working remotely not necessary to work at home but to work at different places and the use of information technology they interact with each other's.
b. **Telecasters:** The offices are located outside of major cities and provide facilities of offices outside because the tools and equipment is not available at home.
c. **Mobile Networking:** Employees requires tools to work in remote areas like mobiles, computers, internet pager and laptops.
d. **Virtual Teams:** Employees interact each other's through e-mail, groupware, internet etc.

Conclusion

Managers now days tackle with lots of information in making business related decision. Strategic Information System (SIS) helps managers to channelize the information in a systematic way to make strategic decisions. Moreover, through the system, organizations can catch the long lasting benefits of competitive advantages. Moreover, for the survival in competitive environment, organization must focus on the implementation of strategic information system because it will be the key for organizational survival in future.

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