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Benefits of Using Information Technology in Supply Chain Management

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Abstract

Supply Chain Management (SCM), an essential issue for trades, can offer cutthroat benefits when secondhand effectively. It maybe pronounced that the strength of trades to efficiently accomplish the supply chain depends on information giving accompanying suppliers and consumers. In this circumstances, e-obtainment requests have emerged to authenticate a productive ideas network between suppliers and clients. E-obtainment provides many benefits to trades, containing lowering organizational costs, abridgment the phase time to meet demands, lowering the prices finance amount and stock levels, making plans accompanying trade associates, and increasing mechanics collaboration. IT helps the direct administration of all liberated supply chain elements together on account of allure superior skill to accumulate, process, and allocate news. The purpose of this study search out decide the benefits of facts sciences and current happenings in facts technologies to the processes of SCM and to guarantee that these hope are widely employed. In this framework, studies in the brochure were checked and the benefits of IT utilization in SCM were reliable expected driven.

Keywords: Supply Chain, Information Technology, E-procurement

Introduction

With the impact of concerning details growths and globalization, contest environments have enhance more severe. In these grim environments, the connection between trades and their surroundings is too important to live and challenge. The basis concerning this connection is facts sharing. Information plays a main part in the benefit of companies in the changing trade surroundings. Information processing and access manage attainable for parties to maintain their vying capacity in this place challenging atmosphere (Güleş et al., 2012:184). At this point, Information Technologies (IT) plays a key function.

With the happening of facts electronics, it has enhance much smooth to share facts with energies and it has existed noticed that energies that share news efficiently have reached meaningful gain in merging the supply chain (Yüksel, 2002:262). Therefore, the use of IT has a main place in the supply chain including consumers, suppliers, manufacturers and distributors, place material, facts, and services flow (Dong et al., 2009:18).

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The Global Supply Chain Forum stresses unification in allure description of SCM as "mixing key business processes that adjoin worth to the worth of clients and additional colleagues, from suppliers to produce, duty and facts providers to end shoppers" (Patterson, 2003:96). This is cause persuasive supply chain administration is not likely outside facts giving and arrangement among the appendages of the supply chain (Yüksel, 2002:261). Information Technology (IT) can speed the unification of the supply chain, particularly when electronics that span the usual horizons of the firms in the supply chain are secondhand (Özdemir & Doğan, 2010:19). SCM is defined as the unification of key trade processes that transfer device, aids, and facts from completely consumer to the original suppliers, with creating advantage for consumers and added collaborators (Gunesakaran & Ngai, 2004:269).

IT-located structures arrange and unify the flow of fabrics, news, and finance from suppliers to manufacturers, wholesalers, retailers, and end consumers (Özdemir & Doğan, 201019). Companies that merge innovation and status accompanying the supply chain gain take advantage of lowering brand development period, kind cost, and production marketing cost (Güleş et al., 2012:186).

1. Supply Chain Management (SCM)

A supply chain is a joined order of diversified pertain trade processes that move together harmonious to (1) obtain natural resources and parts, (2) reconstruct natural resources and elements into done device, (3) increase advantage to production, (4) distribute those fruit to retailers and consumers, and (5) speed the exchange of facts with differing trade aspects (Min & Zhou, 2002:231). In other words, the supply chain is a set of approaches used to efficiently merge suppliers, manufacturers, warehouses and stores to ensure the result of brand in the right quantities and the classification of brand to the appropriate domains at the official time of region to underrate the costs of the whole structure all along the delivery of acceptable duty level necessities (Başkol, 2011:15). Briefly, the supply chain maybe delineated as the obtainment of natural resources, the metamorphosis of these natural resources into to a certain extent-finished commodity and therefore into definitive device, and the childbirth of fruit to consumers through a disposal order (Lee & Billington, 1995:43).

Supply Chain Management (SCM) is engaging attention relating result, management, materials, allocation and conveyance functions in an institution and focuses on by means of what firms can use their supply processes and electronics to gain a back-and-forth competition (Ungan, 2011:308). Stevens delimits SCM as a succession of interdependent conduct had connection with the preparation, arrangement and control of natural resources, tractor trailer-done fruit and finished merchandise from suppliers to consumers (Fasanghari, 2008:87). Supply chain administration covers an abundant field from the beginning point of inception of the commodity to after-auctions support (Sarıoğlan, 2011:240). The supply chain contains conduct had connection with the flow of news in addition to material conversion and flows in the process from nudity material stage to the end consumer... Supply chain administration is the unification of these friendships in reconstructing supply chain connections to gain tenable competitive advantage (Presutti, 2003:219). SCM is the practice and processes that aim to guarantee the effective and active flow of matters and news betwixt a trade and allure existing suppliers and clients (Auramo et al., 2005:2). SCM aims to decrease the number of suppliers and authorize clever cooperations middle from two points suppliers (Güleş et al. 2012:48). In line with these objectives, SCM aims to defeat costs, increase

aid levels, raise ideas betwixt supply chain companions, and increase elasticity in dispersion and distribution and accomplishment period environments (Lancioni et al., 2000:45).

Effective SCM aims at the concurrent killing of supply, product and dispersion. For this to take place, trades need to use the relatedness power of the computer network to generate a mathematical plank that enables evident-occasion news giving within the arranging and revised arrangement of money along the supply chain. The mathematical podium helps to combine the different resources possessed by allure supply chain associates, accordingly transforming ruling class into a pool of money that put oneself in the place of another each one (Dong et al., 2009:18).

Global contest has developed from competition middle from two points trades to contest between supply chains (Türker et al., 2005:461). In the past, trade organizations fixated on cheap and reconstructing quality to gain back-and-forth competition. Today, still, they must be creative in global guidance and able to have or do hurry enough to catch up with their competitions, design and market a new crop stream and processes to welcome electronics leadership (Patterson et al., 2003:96).

It is attainable to mention many benefits of Supply Chain Management, exceptionally the benefits in the way that preventing gratuitous use of possessions and idling away time by way of facts giving on account of aid betwixt trades. The Supply Chain Council has recognized these benefits as (1) Improved transmittal accomplishment, (2) Reduced stocks, (3) Reduced phase occasion, (4) Increased forecast veracity, (5) Increased adeptness near the chain, (6) Reduced costs near the chain, and (7) Increased ability achievement rate (Özdemir, 2004:93).

2. The Use Of Information Technologies In Supply Chain Management

There are many sciences for resolving and giving news in the supply chain. Electronic Data Interchange (EDI), Internet, Enterprise Resource Planning (ERP), Radio Frequency Identification (RFID) and Supply Chain Management/Supply Chain Planning (SCM/SCP) electronics are few of ultimate usual sciences (Özdemir & Doğan, 2010:19).

It is mainly trusted that IT enables or supports better connections by lowering uncertainty and growing temporary computing volume. IT reduces undertaking costs between peddler and temporary and designs a more collaborative makeup that removes the human element in hawker-temporary interaction and influences peddler-supplier friendships tighter, while construction trust in human interplay (Fasanghari, 2008:88).

Thanks to allure benefits in accumulating, processing and spreading facts, IT simplifies the active unification of independent supply chain parts (Güleş et al., 2012:34). The use of IT reduces the cost of functional processes, removes human wrongs, improves the characteristic of news and advances the flow of news betwixt organizations (Auramo et al., 2005:6). IT in SCM covers issues in the way that providing working and apparent news, access to dossier from an alone point of contact, making determinations established supply chain facts, and collaboration accompanying supply chain spouses (Auramo et al., 2005:83).

The use of news and ideas sciences supports effective resolution making and exercise in a convenient class for supply chain details (Tütüncü & Küçükusta, 2008:95). The majority of trades cannot experience their trade outside IT. Collecting, depositing and prepare information helps trades to boost their accountable processes and increase their adeptness and influence. In addition,

businesses use IT for temporary, peddler and client cooperation to meet consumer needs in the most effective and fastest habit (Güleş et al., 2012:184). The benefits of utilizing IT are growing the deftness of the supply chain, reducing phase occasion, accomplishing extreme throughput and reconstructing the timely disposal of merchandise to consumers (Fasanghari, 2008:87). It will not be likely to survive the supply chain effectively outside plotting news methods that will guarantee prompt delivery of correct facts to all appendages in the supply chain (Yüksel, 2002:269).

The use of IT in supply chain demand administration has grown speedily over the last 10 years. Research shows that IT is secondhand in differing obtainment requests, containing buying from vendor directories, examining merchant bills, and ideasing accompanying vendors (Fasanghari, 2008:88). Information technology plays a detracting function in the preparation and exercise states of supply chain administration. Information technologies have important impacts on three fields in the supply chain: crucial level preparation, strategic level preparation and transactional level preparation (Yüksel, 2002:270).

I. Planning at the crucial level includes supply chain network design, containing deciding the best number of suppliers, recognizing distributors, etc.

II. Planning at the strategic level includes supply preparation, that includes optimizing the flow of fruit and duties across the network. Decisions at this level contain that adventures will produce that output and in what quantities, and place natural resources will be derived.

III. Planning at the functional level includes making result plans in all activities on an often or at fixed intervals action.

In the supply chain and the action of assistance, many questions stand if skilled is not a complete, current and fast flow of news from the consumer to the suppliers and with the order reversed. These questions bring about an increase in result, stock, conveyance, stowing and completion costs and renewal occasion, and a decrease in worth and produce chance (Türker et al., 2005:461):

In order to obtain an IT-located supply chain, businesses should renovate their within organizational and mechanics processes, change their established and core output classification channels and department dealing with customers procedures, and spend meaningful amounts in preparation staff (Özdemir & Doğan, 2010:19).

2.1. Electronic Data Interchange in Supply Chain Management (EDI)

Electronic Data Interchange (EDI) is mainly outlined as the exchange of appropriate trade dossier/undertakings from computer to calculating. EDI admits trades to place instant, undocumented orders to their suppliers. EDI is not only adept but again reduces moment of truth necessary to transfer merchandise to clients (Özdemir & Doğan, 2010:19). Today, EDI is accepted as a calculated facts method in many areas and suppliers are necessary expected affiliated to the client through an EDI method (Güleş et al., 2012:41).

The achievement of just-in-period result standard predominantly depends on the coordination between the appendages of the supply chain. EDI allows electronic pursuing of orders and just-in-opportunity transmittal (Yüksel, 2002:273).

There are two various types of EDI practices. The first individual is the temporary-familiarize EDI systems that are used to arrange the connections accompanying suppliers. With these orders,

suppliers understand the stock table of the patron company and give the wanted inputs to the association according to schedule. The second is client-familiarize EDI systems, that are used to increase client vindication and buying (Güleş et al., 2012:40).

Through the mutual ideas networks it determines between the members of the supply chain, EDI allows the administration of orders, broadcast of invoices, etc. expected fulfilled fast (Yüksel, 2002:273). According to Özdemir and Doğan (2010:19), the use of EDI provides betterings orderly completion period, brand chance, allocation flexibility, dispersion news, and allocation disruptions. In addition to these betterings, the use of EDI has the following benefits (Özelmas Kahya, 2009:47):

- Fast approach to facts
- Better department dealing with customers
- Reduced paper use
- Better ideas
- Increased adeptness
- Better following
- Cost adeptness
- Competitive advantage
- Advanced charge money for goods

Although EDI networks have existed secondhand widely in the past betwixt trades to design in essence markets, EDI is two together more costly than the Internet and covers minority trades in agreements of the ideas room it provides (Yüksel, 2002:273). The exercise of EDI is high-priced, calculated in heaps of currency. Therefore, the cost of implementation is a main impediment to allure extensive use (Presutti, 2003:221).

2.2. Internet in Supply Chain Management

Historically, markets have existed outlined as physical places that admit customers and sellers to meet at the place at the time, and place ideas middle from two points purchasers and sellers begins by signifying their enthusiasm to trade. These markets still endure today. However, the happenings in ideas science and the extensive use of the internet have removed moment of truth and place limits in the markets and allowed the new meeting point of the bodies expected connected to the internet. The use of the Internet is uniformly increasing all at once of the main beginnings for acquiring information about markets, output, clients, suppliers, competitions and suppliers orderly for the business in the second place allure actions harmlessly under ever-growing competing environments (Barutçu, 2007:135).

IT, that has ripened over be present at trade existence and is established more sensible bedrocks and needs, is immediately visualized to provide trades accompanying returns, gain and reach the pledged levels of adeptness (Güleş et al., 2012:42). E-commerce removes the borders betwixt markets and authorizes the unification of markets. E-commerce increases the freedom of trades to reach new markets and consumers (Yüksel, 2002:272).

Kaya (2007) delimits buying as any marketing trade exercise in which the bodies correspond electronically outside the need for direct physical links or material exchange (Güleş et al. 2012:47). With e-commerce, trades in the supply chain maybe joined more effectively and correct news maybe accessed fast. With buying, doubts in the supply chain can be lowered and it will be likely for all appendages to access the essential news according to schedule (Yüksel, 2002:272). The Internet removes tangible and momentary restraints and positions many businesses in new "high-tech markets". Faster and more correct undertakings are possible through netting-located photoelectric data exchange, photoelectric fund transfers, state-of-the-art SCM and refreshed models (Özdemir & Doğan, 2010:26-27).

Traditional trade-to-business buying schemes require extreme investment. Internet-located buying can be earned at intensely low costs distinguished to traditional methods. Thanks to progressive technology, the supply chain has enhance a low-cost, careful, clever tool that hampers potential questions (Güleş et al., 2012:43).

There are miscellaneous habits at which point trades use the computer network in supply chain unification. These involve; Business to Business (B2B), Business to Consumer (B2C), Consumer to Business (C2B), Consumer to Consumer (C2C), People to People (P2P), Government to Citizen (G2C), Citizen to Government (C2G), Exchange to Exchange (E2E) and Intra-adventure (Organizational Unit to Organizational Unit) types maybe likely as instances (Özdemir & Doğan, 2010:24).

There are two types of costs effectively obtainment ventures. The first of these cost articles is the cost of buying the amount or help. The second cost fundamental is the process costs, that are the costs of the obtainment function. Internet electronics, that aims to underrate these costs, offers trades the event to act their obtainment functions by way of the Internet in current age (Şahin & Demir, 2005:2). According to the results of a study administered by Lancioni and others (2000:47) on 181 adventures had connection with cyberspace-allowed SCM, obtainment requests and Insternet custom rates were 56.2% Business Logistics, 50.7% Ordering, 45.2% Customer Relations, 45.2% Purchasing, 42.5% Customer Service, 30.1% Inventory Management and 12.3% Production Planning.

Businesses have had the freedom to reach mark consumers straightforwardly through their websites and to advance and advertise their products and aids general in ultimate economical habit. One of ultimate main factors in guaranteeing consumer delight is the timely transmittal of the brand or help requested for one client. A communication network that links the temporary and the consumer will admit the activities betwixt the associates expected carried out together. Through this harmonized functioning, the news essential to meet the customer's demands maybe acquired more fast and reliably (Güleş et al., 2012:44-45).

The computer network, that is an important force for the incident of SCM, determines many benefits to trades. Lancioni et al, (2000:47) characterize the benefits of Internet-based SCM to trades; (1) trades can select and order brand from customer directories presented connected to the internet without some ideas with operators in temporary trades, (2) scheduling of stowing and conveyance occasions, (3) tracking of trucks, trains and bicycles moving natural resources, materials and/or ending produce by road, rant and air, (4) transmittal delays, stock control, (5) the opportunity to immediately contact clients or consumers about problems that stand on account of

changes in childbirth or ordering occasions, or to visualize this situation in the table of the resourcefulness, (5) the likelihood to prepare a stowing and unloading schedule at public or private management resourcefulnesses within 24 hours, (6) the supplying of 24/7 department dealing with customers worldwide and the feasibility to correspond straightforwardly with consumers, (7) permissive trades to open up to worldwide markets and sustain orders from these clients, (8) enabling arranging trades to check the status of their orders from their own trades, (9) permissive consumers to be informed rapidly of arrangement changes in the products caused for the order, (10) permissive ruling class to make fees electronically and control their reports and debts, (11) enabling ultimate adept arranging of products expected delivered and/or composed within the foundation of trade logistics, (12) making restrictions for instant depository in accordance with market environments, (13) permissive questions to be resolved more fast and efficiently, and (14) providing more efficient help to consumers.

According to Özdinç (2005), apart from these benefits, computer network-based requests more have some troubles. These are (Güleş et al. 2012:49);

- E-obtainment has shortcomings in agreements of trustworthiness. It is attainable that society may not specify some main information or can mislead others accompanying misleading facts
- Another loss of e-obtainment is security. In a photoelectric atmosphere that is not well organized or that has protection gaps, competitions can get main information or undesired companions can create negative results.

2.3. Radio Frequency Identification (RFID)

The most established automatic labeling and dossier capture (AIDC) based structures contemporary are barcode, optical character recognition, attractive line, voice input, RFID, card for shopping without cash, biometrics and contact thought.

RFID is individual of the procedures of acquiring data about an object outside utilizing persons to state and re-encrypt the data. RFID science exists of an alive or lifeless radio frequency tag ascribed to the traced part and a high frequency scholar/transmitter. The passive tag sustains capacity from the elocutionist, while the alive tag has its own artillery and endures capacity from skilled. Full implementation of RFID removes manual adding and barcode scouring in the taking department (Özdemir & Doğan, 2010:30).

Privacy has enhance a big question for those implementing RFID science in the sell manufacturing. One of the grown barriers to Radio Frequency located technologies is the extreme celebrity of barcode science. The primary finance concede possibility be high-priced, but RFID supports a return on expenditure and future tumor potential for some manufacturing in the unending. RFID promises to help in lowering the cost of waste, guaranteeing complete and correct stock management and raised output.

2.4. Supply Chain Management / Planning Software (SCM/SCP)

With the shift in focus outward in Supply Chain Management, different types of spreadsheet support wholes are again wanted. One of these is Supply Chain Management/Supply Chain Planning (SCM/SCP) spreadsheet science, that has only currently started expected selected. The SCM/SCP whole uses the news in ERP to determine examining conclusion support apart from facts

perceptibility. While ERP wholes show the party what is occurrence, SCM arrangements help the party to conclude what commotion. Some of the benefits of achieving SCM/SCP schemes are likely beneath (Özdemir & Doğan, 2010:34):

- Increase in income,
- Increased productivity,
- Reduction in operational costs,
- Low stock,
- Reduced order fulfillment time.

2.5. Other Information Technologies Used in Supply Chain Management

Some of the common IT used in SCM are as follows (Patterson et al., 2003);

- Product Data Management (PDM): This software has emerged as a product of the product development process. PDM tools are used to facilitate manufacturing process integration as an aid to design engineering and to support collaborative engineering.
- Customer Relationship Management (CRM): This software is an intelligent relationship management tool that provides web-based analytics and operations systems to unify all inbound and outbound sales, service and marketing customer interactions.
- Automated Quality Control System: AQC system is an information system that helps to monitor quality assurance processes, inspection procedures, specifications and measurement calibration statistics.
- Computer Aided Design Systems (CAD): It is one of the most widely used areas of computers in business. CAD is the use of computer systems in the design, organization and analysis of a product. With CAD, complex three-dimensional shapes are designed and created on computers and displayed on a two-dimensional screen from various perspectives and at desired scales.
- Warehouse Management Systems (WMS): is a software that keeps all functions of a warehouse under control, such as space, labor, resources, material flow and tasks. WMS provides online solutions for the warehouse by working integrated with systems such as radio frequency RFID.
- Manufacturing Execution Systems (MES): MES revolutionizes the manufacturing process, enabling rapid analysis and making the right decisions at the right time. It also provides full integration with ERP and SCADA layers, enabling rapid and reliable reporting to management. As a result, MES means lower cost, higher quality and highly efficient production (http://www.dacel.com.tr/).
- Transportation Management Systems (TMS): TMS is designed to reach company-wide freight control centers by enabling them to meet complex transportation requirements across channel partners. TMS solutions can offer complex planning algorithms to improve different transportation scenarios.

- Geographic Information Systems (GIS): It is an information system created for collecting, entering, storing, querying, spatial analysis, displaying and outputting spatially based information (graphics and attributes) in computer environment (www.tagem.gv.tr). Nowadays, within the scope of SCM, satellite or cellular tracking tools are mostly used to investigate the location of trucks or trailers and to provide information to auxiliary systems such as TMS or WMS.
- Bar Coding Technology (BCT): Barcode came into Turkish from two different words in English, Bar and Code. Although it is also called "Line-code" in Turkish, the word barcode is more commonly used. In the system, an identifying number is given for each good. A number is given to the company that produces or packages this good and to the country where this company is located. Thus, the barcode number of any product is not confused with the barcode number of another product. Therefore, in the barcode system, numbering is done assuming that the product travels all over the world. In addition, there is a check digit at the end of the barcode to check whether the barcode is read correctly.
- Electronic Commerce Technologies (ECT): These are technologies that enable computer-based business transactions over public internet technologies or through personal or public networks such as EDI.
- Supply Chain Event Management (SCEM): It is a tool that predicts the disruptions that may occur in plans and programs in a short period of time and gives the business the ability to respond to these disruptions more quickly and increases communication between departments within the business and between other members of the supply chain outside the business.
- Demand Forecasting Management (DFM): The data used in demand forecasting are obtained by observing the demand for goods and services at certain time intervals. Generally, forecasting can be thought of as projecting the past into the future. In simple and statistically stable cases, past data can be evaluated directly and future forecasts can be made easily.

3. E-Supply

SCM requires not only internal resources but also external resources provided by partners in the supply chain. As previous research emphasizes, the effectiveness of SCM depends on the support of suppliers and partners (Dong et al., 2009:22). The use of the Internet helps firms at all stages of the supplier selection process, from pre-qualification of suppliers to comprehensive final supplier selection recommendations (Presutti, 2003:221).

In its simplest form, e-procurement can be defined as a technology solution that facilitates corporate purchasing using the Internet. In other words, e-procurement is an internet technology application that covers every stage of the purchasing process. Generally, e-procurement systems enable firms to capture how important buying power in the marketplace can be, enabling firms to more efficiently and accurately capture and aggregate how much is being spent in various product purchasing areas (Presutti, 2003:221). An effective e-procurement strategy facilitates the real-time exchange of information about product lists between buyers and suppliers (Güleş et al., 2012:38).

There are software such as Microsoft Dynamics AX, WorkCube, mySAP SCM and PeopleSoft ESCM developed for businesses in the supply chain. Among these software, WorkCube provides fast and practical procurement processes by using electronic data transfer (including XML and EDI), e-mail, automatic fax and electronic catalogs, and enables easier and more effective management of all expenditures related to EDI.

The benefits of e-procurement for businesses include reducing administrative costs, shortening the cycle time to meet demands, reducing the prices paid for products and inventory levels, and preparing for increased planning and technological cooperation with business partners (Güleş et al. 2012:38).

Angeles et al (2001) state the critical success factors related to SCM and e-procurement practices as follows (Güleş et al., 2012:59);

- Accurate and timely communication in the supply chain
- Easy communication between supply chain and customers
- Mutual understanding and knowledge sharing
- High level of cooperation in the supply chain
- Relevance and availability of information in the supply chain
- Trusting relationship between partners in the supply chain
- Transparency in e-procurement practices
- E-procurement practices are well understood and known by senior management
- Adoption of e-procurement practices by senior management
- Senior management involvement in e-procurement practices
- Convincing and supporting employees by senior management in the development of e-procurement practices
- Establishment of systems to measure the performance of the e-procurement system by senior management
- Delegation of authority by senior management in e-procurement system implementation
- Existence of a cost-effective security system to protect security in information transmission
- Security of transactions against e-procurement applications
- Training on e-procurement applications
- All employees understand the benefits of e-procurement practices
- Reliability of software and hardware used in e-procurement applications
- Performance of the Internet and timely response of Internet services

Conclusion

With globalization, competition conditions are getting tougher every day and customer expectations are changing rapidly. In order to respond quickly to this change, businesses use IT for supplier, vendor and customer cooperation in order to meet customer needs in the most effective and fastest way. Because in order to manage the supply chain effectively, an information system is required to ensure that the right information is delivered to all members of the supply chain at the right time. Because the use of IT facilitates the integration of the supply chain. The technologies commonly used to analyze and share information in the supply chain are Electronic Data Interchange (EDI), Internet, Enterprise Resource Planning (ERP), Supply Chain Management Software and Radio Frequency Identification (RFID).

EDI enables computerized tracking of orders and just-in-time delivery. According to Özdemir and Doğan (2010), the use of EDI improves order fulfillment time, product availability, distribution flexibility, distribution information, and distribution disruptions. Quick access to information, Better customer service, Reduced paper usage, Better communication, Increased efficiency, Better tracking, Cost efficiency, Competitive advantage, Improved invoicing are some of the benefits of using EDI. However, EDI implementation is costly.

Developments in communication technology and the widespread use of the internet have made the internet the new meeting point of the parties by eliminating the time and place restrictions in the markets. The use of the Internet is constantly increasing as one of the most important sources of information about markets, products, customers, suppliers, competitors and suppliers in order for the business to continue its activities safely under ever-increasing competitive conditions. Any commercial business activity in which the parties communicate electronically over the Internet without the need for direct physical connection or physical exchange is called e-commerce. Internet-based e-commerce can be realized at extremely low costs compared to traditional systems. Thanks to advanced technology, the supply chain has become a low-cost, money-saving, strategic tool that prevents potential problems.

Another application used is Supply Chain Management (SCM/SCP) software. Implementation of SCM/SCP systems provides benefits such as increased revenue, increased productivity, reduced operational costs, lower inventory and reduced order fulfillment time. Similarly, the use of RFID, a radio-frequency identification system, promises to help in reducing the cost of waste, ensuring complete and accurate inventory management and increased efficiency.

E-procurement, supported by networking technologies, offers businesses the benefits of reduced administrative costs, shorter demand fulfillment cycle times, lower prices paid for products and inventory levels, and preparations for increased planning and technological collaboration with business partners.

As a result, the use of IT in SCM enables businesses that have to compete in global markets to respond to customer needs quickly and on time, reduce costs and increase productivity. However, while making the technological investments that businesses need, they should answer the questions of whether the IT to be integrated fully meets their needs, whether the entire IT planned to be integrated can be used or whether a few modules will be used, whether there is a more economical IT that will meet the need and act accordingly.

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