

Information technology and logistical management

[Technology](#)



Perhaps one of the most important areas where the communications field has developed is through shipping of goods. Nowadays it is possible to send a package from one place to another, no matter how far it is, in the same day. Businesses have immensely opened their markets through new communication methods therefore increasing the profits they make and making the United States the World Potency that it currently is. Within these communication fields, Information Technology has played perhaps the most important role in its development.

Without the use of proper information technology, most likely the communication methods that we currently use would not even exist and economic and growth power of the country would not have been in the levels in which they currently are. For the individual business however, Logistics Management plays a huge role in the supply chain operations. Without Information Technology, the supply chain must collapse at a certain point of its growth. Information Technology eases the system interactions within the supply chain therefore reducing inventory costs and effectively leading us to the accomplishment of processes like SIT or MR..

Information Technology has eventually aided in the developments of the majority of the fields. We could go into the classic example: The Internet, which has opened markets for businesses in an unimaginable way. People can buy a good in China, see its specifications, and have it shipped the same day and have it in very few days. However, even the most classical means of communications, in this case the mail, have enormously benefited from Information Technology up to the point where people can share anything anywhere in just a matter of hours.

Today, all firms that need to generate a profit use or have used some sort of Information Technology in order to aid them with their tasks. From the smallest restaurant that uses a modern register to log sales and generate sales reports, to the suggest companies that have automated all of its systems in order to operate more as UPS or FEEDS, have increasingly used the aids of Information Technology in recent years in order to more efficiently run their operations.

These huge companies use logistic coordination in order to develop systems that coordinate their operations faster and more efficiently. Millions of users take advantage of their services relying on their efficiency on monopolizing packages and letters from one place to another (no matter where in the world) and this of course requires huge coordination. These impasses today now even offer real time tracking information and can display information on where a package exactly is located and when it will reach its destination. Sometimes even the approximate time of arrival of the package is displayed.

Considering that these companies handle millions of packages a day, being able to efficiently run their operations as they do right now requires a complex Information Technology organization and real-time technology solutions in order to provide customers with the satisfaction they expect. The Business Problem Prior to 1989, United Parcel Service Inc. r UPS, used paper sheets to record and route all information on each package. This information was later recorded in computers but the methods used were not efficient and increased demand forced the company into developing new systems to comply with customer's demands.

In 1989, UPS adopted bar-coded shipping labels. All information from the devices was downloaded to back-end systems at the end of each business day. [1] This is a classic example of how Information Technology, with the aid of computers and bar-coded reading devices, helped in the improved efficiency operations of a logistic carrier. The company needed however a real-time cost-effective tool for the company to be able to carry out its operations and at the same time have control of the logistics being able to modify them in real time and be able to produce a more efficient method of coordination.

In 1992, UPS developed a wireless transmission system where every UPS truck used radio frequency technology to send package information back to UPS's central network eliminating like this the end-of-day downloads and producing therefore real-time information. UPS realized of the advantages of Wireless Technology and expanded its wireless operations making alliances with over 100 networks from around the country to provide with the central facility of real-time information on packages delivered.

UPS however began acquiring a large number of wireless applications and later realized that its Information Technology department had numerous systems that could not interoperate or be upgraded easily. UPS then standardized its operations on Bluetooth and 802.11 wireless technology. They currently use wireless systems, all standardized, divided in three different systems. The first system is used in warehouses and inside vehicles. It uses wireless LAN, some public that connect the devices to UPS's fixed networks. The second system consists of computer hardware tablets that drivers use to enter tracking numbers for each package.

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The third wireless system is used in Pup's routing and distribution centers. In here devices scan barded labels and send the information to Pup's central network and at the same time transmitted to the data centers for storage and Pup's Information Technology, in this case its wireless systems assessment. Helped the company reduce its costs by 30% and reduce equipment by 35%. . The system not only consolidated its wireless operations, but also consolidated several or in the United States obtaining the same information which comes from the same centralized network.

The benefits of the company using these Information Technology systems are enormous and eventually helped in the increased efficiency efforts of the company. Added to these factors however, competition also serves as a strong incentive of growth for these companies. Parcel service companies such as UPS and Feeds are reducing the amount of time it takes to ship items by ground. Feeds for example, has reduced a day from transit times during the past 18 months on routes that carry half its ground shipments. This is of course all made through increased Information Technology and more efficient logistical and operational planning. 2] Information Technology and Business Some other companies, in order to increase their efficiency methods, rely on the use of information technology to further optimize their operations and effectively reduce storage times. Perhaps the ideal of any shipping or merchandising company would be to not have any inventory and that ay item received is sent reducing outrage costs and operational and even facility costs. In the past, companies were not able to do this. Every company had to maintain a warehouse with products, sometimes these products going bad, before shipping them to customers.

It was virtually impossible to not have an inventory and still satisfy customer wants and needs. Nowadays, with the aid of Information Technology solutions, companies can reduce inventory costs to a minimum. This is performed by using a well-developed logistical planning solution that would be impossible to accomplish without the use of a good Information Technology solution. An example of this is what Pipe suppliers did in order to reduce their cost and increase the efficiency in their operations. Managers realized that finding and handling an optimal warehouse was the key to their survival.

They decided then to find an Information Technology solution that would handle their warehouse operations more efficiently. For instance F W Webb developed a system that automatically makes reacquisition orders based on the sales made every day. [3] This is downloaded to bar code readers, selected on a second shift operation and shipped the following morning. Also, every month the computer automatically recalculates minimum and maximum quantities and then looks at the past year's sales history to recalculate. Another good example on how Information Technology has aided warehouse shipping industries is the initiative of Toddy's Pipe & Supply Inc. With the installation of wireless bar code scanning devices which automatically keep track of inventories and allow customers to check stocks, availability, and purchase online opening markets anywhere in the world without the need of a real -life operator. Customers can have control of the availability of items and can know as much information of the company's warehouse as a real life operator.

This initiative dramatically reduced costs and resources of the company which is able to provide its customers with the latest technology and enormously benefit from Information Technology. Reducing Times Logistical Management however not only involves reducing costs of inventory. From one place to another in the shortest amount of time possible. As an example, DEL operations in Rupee's main goal is to provide customers with what they are currently demanding, that is Dynamic Routing done in Real Time. To provide customers with real time information on the most expedited way as possible using the most cost-efficient methods possible.

Different companies must seek for ways to improve their operations, and these ways rely mostly on Information Technology. Changes such as reduction in delivery times, or offering extra fast services, require incredible amounts of effort and reliance on Information Technology networks closely handled by management and operations specialists. Physical changes in plants and processing facilities in order to reduce these times must be closely linked to changes in Information Technology in order to further expedite processes and provide faster services.

All parcel couriers like UPS, FEEDS, DEL and the USPS have realized the importance of this and developed systems in order to improve their operations. UPS for example is using changes in its package-sorting deadlines and locations, a streamlined tractor-trailer network, improved technology and quicker train service to make one of the most significant accelerations to ground deliveries in the company's 96-year history. While only about 370, 000 of the almost 10 million such shipments aired on the average day will arrive faster, the improvements are concentrated in heavily <https://assignbuster.com/information-technology-and-logistical-management/>

populated areas where the rivalry for packages is particularly fierce. 4]

Conclusion It is important to analyze the fact that a century ago, transportation was done with horses. The world is now running faster and there is an increasing demand for services to be delivered "faster". There is an increasing demand for things to move faster and for humans to have control on what they use, even if they do not have it physically available. A lawyer in Latin America can now have control of a shipment of kooks he ordered in New York, or a hairstylist in Los Angeles of the beauty products she ordered in Paris.