IT and Competitive Advantage of United Parcel Services (USA)

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Executive Summary

United Parcel Services is an American based package delivery company started in 1907 by a two teenager named Jim Casey along with his friend Claude Ryan. They started working from Seattle, Washington. With the passage of time company became so famous in its industry that today it is a leader and giant company in package delivery industry. UPS using IT and IS systems which are so much efficient and effective that they are successfully meeting the company promise of “best service and lowest rates.” They have developed competitive advantage in their information system because they are able to keep the information immediate and at hand at any time, place and region from the time of getting in parcel in company desk to its final destination. Company has used DIAD, UPSnet, and COMPASS which are some of the technologies which has provided the company with unique features as compare to its competitors like Federal Express and Airborne Express. UPS has more advanced information technologies as compare to these competitors.
Company Introduction:

UPS was initiated in 1907 by Jim Casey along with his friend Claude Ryan. They started the company in a small basement office. (Michael Bosl, nd). In start UPS was known as American Messenger Company. (Jeanne Ross, 2001). Today UPS is the largest company which is using air and ground for delivering packages all around the world. (Michael Bosl, nd).. UPS is acting as an active leader of supply chain management and different freight services. Its headquarter is located in Atlanta and operating and providing services in more than 200 countries of the world. (UPS Corporate Sustainability Report, 2008). Firstly UPS started its services for delivering packages in Seattle, Washington. UPS is using more than 200, 000 drivers for delivery vehicles and package handlers. (Jeanne Ross et al, 2002). At the time of company origin there were only two bicycles and a phone which Jim and his friend owned but with the passage of time now company is operating at best with huge infrastructure around the world and dong a successful job to meet its promise of “best service and lowest rates”. (Michael Bosl, nd).UPS Company is operating with 359,000 employees, 1,748 operating facilities, 152,500 delivery vehicles and 238 aircrafts. (Jeanne Ross et al, 2002).

With the passage of time UPS has now become expert and leader in transformation, innovation and creativity in its information system for providing package delivery services from a small messenger company to a market leader messenger company. (http://www.ups.com/)

Information system of UPS and competitive advantage:

Communication and information sharing is very necessary and critical at UPS from package size to the place of its delivery. Integration of information system and people is necessary for the management of goods, information and funds which certifies the maximization of revenues. (Nick Gray, 2003).

Adopted from Eric et al (nd)

Alghalith (2005 as cited in TechnologyUPS Competes Globally with Information Technology,nd) has stressed that UPS is very successful in developing competitive advantage and has differentiated itself from competitors in efficient use of information technology for improving its operating services quality. Along with shipment delivery business UPS is providing services in
E-Commerce, Logistics (includes supply chain, supplier and vendor management), International trade, decision green, financial services, credit card services, UPS mobile which is outsourced technology etc.

**Procurement:**

UPS Company provides consulting services for procurement and investing 55% of its budget on it. Efficient supplier is always a guarantee for efficient and effective supply chain management. UPS’ procurement services are able to gain competitive advantage in handling inventory shortages and replacement of inventory with information. ([http://www.ups.com/](http://www.ups.com/))

**UPS Logistics:**

UPS started its functioning in logistics in 1995 for providing solutions and consultation in worldwide supply chain management. ([http://www.ups.com/](http://www.ups.com/)). Logistical services provided by the UPS includes Web retailing and call centers, warehousing and supply-chain management, quick air or inexpensive ground delivery, global trade financing. UPS is acting as a third party logistics provider which is using all modes for transporting packages and containers all over the world. UPS’s distribution strategies are integrated with these shipping modes through containerized maritime shipping. (Dr. Jean, nd)

**Distribution system at UPS:**

Distribution system of UPS consists of three major portions/steps.

**Consolidation:**

This is the first step in which parcels are collected and assigned to specific routes of their delivery. Traffic conditions are monitored to shorten the destination path. Drivers use DIAD to collect information about package. This is helpful for tracking packages.

**Distribution:**

This operation is functionalized from one hub to another for calculating distances for making decisions about using trucks or air way. Distribution operates between three hubs i.e.

1. The Main Hub is Louisville, Kentucky
2. UPS World port
3. Willow Springs in Chicago
**Fragmentation:**
In this process packages are delivered to its destination places. It is actually reverse process of consolidation.

(Dr. Jean, nd)

**Package Flow System and information flow:**
UPS package flow system using labels which UPS called smart labels which bears information for delivery and which is readable by bar code reader. The package carrier's vice president of information services UPS has explained that information necessary for creating smart labels were given by customers on UPS’ website from where the data is transferred to delivery centers of UPS. With the help of this data the company makes plans for dispatching for every route of delivery. This system has also the feature of built-in geographic information system software for mapping out routes. (Bob Brewin)

**Delivery Information Acquisition Device (DIAD) and information at UPS:**
DIAD is a handheld device. Every UPS delivery driver carried this device for keeping the information for package delivery. Drivers record the information with the help of this device and then they transmit this information to UPS network to keep the information flow about every delivery package smooth, immediate and on time. All the communication and
information are shared by this device between company network and drivers. Drivers stay in contact with UPS network due to DIAD and get news about delivery picking schedules and traffic conditions. DIAD records the digital picture of recipient’s signatures. (http://www.ups.com/). Drivers scan the bar code of package, scan the digital signature of recipient, note the last name of receiver and send this information to company network. (Michael Bosl, nd) Company uses this information for package tracking till the time of its delivery along its complete route. (Group Work #1 SOLUTION - "short interactive session scenarios)

**UPSnet and Information:**
UPSnet using an electronic data communication network which is operating globally and is useful for streamlining the processing of information to manage the international package delivery. UPSnet is operating to manage the information and communication tasks for about 500,000 mile of communication lines between 1300 distribution sites in 46 countries. (http://www.ups.com/)

**Computerized Operations Monitoring, Planning and Scheduling System and Information at UPS:**
UPS using COMPASS which is very helpful for providing information regarding planning flights, scheduling and handling loading functions. It is a unique system from competitors and provide the company with competitive advantage because it can provide flight schedules for next six years and make the company active in its actions not reactive. (http://www.ups.com/)

**Inputs:**
For any company its supply chain starts form its inputs and ends at the delivery of products and services to customers and then feedback from customer. Likewise UPS’ supply chain starts form its inputs which includes

- Package information,
- Customer signature, pickup,
- Delivery,
- Time-card data,
- Current location (while en route), and billing and
- Customer clearance documentation.
Processing:
In processing the data and information collected about packages are stored in company’s database from where the same data used again for tracking packages and maintaining information about it. Data reorganization occurs at the same time for tracking purpose by using the command of date, time and driver.

Outputs:
After processing inputs are converted into outputs which include
- Pickup and delivery times,
- Location while en route, and
- Package recipient.
Some of the reports are also included in the output..

Competitive Advantage:
UPS is a leader in the package delivery services. The company has gained competitive advantage in accessing up-to-date information as quickly and immediately as possible. This information system helps the management of UPS to make decisions which helps the company to sustain its competitive advantage. Due to this information system and IT, UPS is operating and providing services at its best level and efficiently and reaping the benefits and opportunities for earning and maximizing profits for the company. Customers of the company are of the view that IT and IS system of the company are the assets of the company which are adding value to the services provided by the company. If the company had not this IS and IT system then it could not be able to fulfill its promise of “best service and lowest rates.” (Group Work #1 SOLUTION - "short interactive session scenarios"

Recommendations and Conclusion:
As from its origin UPS company is on the way of progress and innovating new methods, IT and IS systems for smoothing the communications and information sharing from the time of getting in parcel in company desk to its final destination. The Company has developed the competitive advantage in its functioning and became the market leader in package delivery and logistic system. If UPS wants to remain the leader in package delivery industry then it has to sustain and innovate new methods and techniques of information sharing and IT development. Company has used DIAD, UPSnet, and COMPASS which are some of the technologies which have provided the company with unique features as compare to its competitors like Federal Express and Airborne Express. UPS has more advanced information technologies as compare to these competitors.
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4. Eric, O. Ankit, P. Stephen, D, nd, UNITED PARCEL SERVICE.
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