

Financial analysis | case study: fedex



**ASSIGN
BUSTER**

In 1971, Frederick W. Smith, founded Federal Express Corporation or, FedEx. He was only 28 years old at that time. He originally proposed his idea for an overnight delivery service in a term paper in his economics class in Yale University. [1] He believed that the different requirements between air freight and air passengers will need a company that focuses on air freight rather than making the freight as an add-on to passenger service. In his view, speed of delivery is much more important than cost and access to small cities is crucial. [2]

With financial resources from his family, investors and bank, Frederick W. Smith started Federal Express with over USD 80 million. A super-hub was built in Memphis, Tennessee, where packages from around the country would be collected, sorted, loaded and shipped out each night.[1] The deregulation of airline industry in 1977 gave FedEx the break they needed for rapid growth. By 1978, FedEx was first listed in the New York Stock Exchange. In the late 1980s, FedEx was already well-established and growing at a rate of 40% each year.[2]

In 1998, FDX Corporation was established with the acquisition of Caliber System Inc. by Federal Express. FDX Corporation now included Federal Express, Roadway Packaging System (RPS), Viking Freight, Roberts Express, and Caliber Logistics. However, Federal Express still remains as an independent company. In January 2000, FDX Corporation was renamed to FedEx Corporation.[3] Besides that, FedEx Corporation also re-branded all of its subsidiaries. Few of its principal subsidiaries include;

FedEx Express® which is an original overnight courier services. It provided time-definite international service and also next day air service within the United States. [3]

FedEx Ground® is formerly known as Roadway Package System (RPS). It provided day-definite delivery within Canada and the United States, and also charged less compared to FedEx Express. [3]

FedEx Trade Networks® provides services that are related to customs, insurance, and transportation advice. It was formerly known as Tower Group International and World Tariff. [3]

FedEx Freight® which provide less than truckload (LTL) and other freight services. It was the combination American Freightways and Viking Freight. [3]

FedEx is a world leader in technology, its founder; Frederick W. Smith once said that “ the information about a package is as important as the delivery of the package itself”.[4] FedEx has continued to improve and expand its information system in many areas. From online services, to collection and delivery, information technology has fully transformed its supply chain to provide services that are capable of giving its customers solutions to their business problems with speed, convenience and reliability.[3]

Mission Statement

The mission of FedEx as stated in its official website is,

“ FedEx Corporation will produce superior financial returns for its shareowners by providing high value-added logistics, transportation and

<https://assignbuster.com/financial-analysis-case-study-fedex/>

related information services through focused operating companies.

Customer requirements will be met in the highest quality manner appropriate to each market segment served. FedEx Corporation will strive to develop mutually rewarding relationships with its employees, partners and suppliers. Safety will be the first consideration in all operations. Corporate activities will be conducted to the highest ethical and professional standards.”[3]

FEDEX INVESTMENTS IN INFORMATION SYSTEM AND TECHNOLOGY

FedEx overnight delivery service revolutionized the logistics industry. Hence, FedEx needed a new technical approach, which is the hub-and-spoke model.

[5] FedEx realized the importance of information system and technology in helping them to sort through the vast amounts of deliveries each day.

Speed, reliability, and customer service, the three key goals set forth by Fred Smith, combined with the continuing need to reduce operation costs, thus making application of advanced technologies essential.[5]

Figure 1 : Hub-and-spoke model [5]

FedEx is a major user and provider of technological solutions. And for that reason, in 1979, Federal Express launched Customers, Operations and Services Master Online System (COSMOS®), a centralized computer system to keep track of all packages of their exact location and status in real time.

[5] In 1985, barcode labeling was introduced for ground transportation,

FedEx Ground®.[3] Using COSMOS® and the barcode system, each parcel is attached with a barcode upon pickup, and scanned up to 20 times en route

for international shipments. By 1986, SuperTracker®, a hand-held barcode scanner system was introduced that is capable of capturing detailed package information.[5]

FedEx implemented DADS® (Digitally Assisted Dispatch System) in 1980, to coordinate its on-call pickups for customers.[5] This system installed small terminals in vehicles for the purpose of transmitting digital information on orders, guiding couriers to pickup locations. In 1984, FedEx launched a PC-based automated shipping system, which is later named FedEx PowerShip®, which is now a component of FedEx Ship Manager.[5] FedEx gave away free PC to its high-volume customers and used telephone lines to link them to COSMOS®. This function allowed customers to place their own shipping orders electronically and also provided the customers with real time tracking and other reporting functions.[5]

In 1994, FedEx launched its website, www.fedex.com, which contained company information and also services.[3] This official website provided real-time, on-line tracking information provided by the COSMOS® system.[5] Since then, the system has expanded its services such as providing customers with frequently used delivery addresses, retaining shipper information and access to shipping histories. In 1998 however, FedEx internal IT system was overhauled under Project GRID (Global Resources for Information Distribution), PCs were replaced with network systems.[5] Its purpose was to avoid rapid obsolescence of PCs as newly installed applications use up processing power.[5] The network computers also linked on a global Internet Protocol network. This linkage allowed FedEx to deliver higher quality services to its customers.

After a brief overview of the development of information system and technology of FedEx for the late twentieth century, let us now have a look into a few of the important innovations that are in use currently. With the globalization and revolution brought about from the boom of the internet age, FedEx started to integrate wireless solutions, Bluetooth and RFID to become digitally innovative.[6] Wireless technology are used in a some of FedEx's subsidiaries, namely FedEx Express, FedEx Ground and FedEx Freight shipments.[3] SuperTracker was still in use to keep their customers informed about the status and location of their packages. By using Wireless Application Protocol (WAP) phones, Personal Digital Assistants (PDA) and pagers, FedEx is able to notify its customers about the location of their package.[6] While on the management side, the wireless technology is use to scan the barcodes on the packages or shipments to record time, destination, and delivery information that are instantly updated and recorded on FedEx's supercomputer. From here, its customers are able to retrieve the data.[6]

Following the barcode system, FedEx have also implemented radio frequency identification (RFID) since 1999.[6] RFID differs from barcode as it can be embedded and hidden with no need for line-of-sight scanning. They can be read through wood, plastic, cardboard, and other materials except metal. This is especially suitable in use for FedEx where parcels are often stored in bulks, in boxes or in sacks. RFID tags are also applicable in harsh environments that FedEx packages often will have to endure en route to their destinations.[7] A customer can enter their parcel reference number on the FedEx website and immediately identify the location of their parcel.[6]

Besides packages, FedEx couriers also use automatic keyless entry and ignition system that contains RFID transponders embedded within a Velcro wristband.[6] FedEx couriers can easily lock and unlock their cars with the wristband through RFID scanning which makes delivery easier and more efficient.[7]

In 2003, FedEx introduced FedEx PowerPads which is a Microsoft Windows-Powered Pocket PC that is able to scan a package and immediately uploads information such as signatures, proof of delivery, and time stamp into the FedEx network.[6] This technology also allows couriers to send and receive real-time information even when they are away from their vehicles. It also improved courier efficiency and enhances customer service by providing near-real-time, wireless access to the FedEx network.

Figure 2 : FedEx PowerPad [3]

Besides advanced electronic gadgets to help FedEx with their daily operations, FedEx also provided its customers with a variety of services using its official website. For example, in tracking the packages, customers can choose from a variety of options including tracking by reference number, or using My FedEx, or the latest system, FedEx InSight. FedEx InSight allows its users to monitor and view detailed tracking information about all inbound and outbound FedEx shipments to and from the customer without a tracking number.[8] Customers have to register an account on FedEx InSight, then they can start search for packages by the send date, by the company they sent the package to or by the company that sent them a package.

Are The Investments Good Or Bad

Even with the economic downturn that has hit the global environment this year, FedEx still showed no sign of slowing down or reduce investment in information technology. Instead, FedEx estimated that it will further invest USD 1 billion this year for information technology development.[9] They expect to gain benefits from this investment once the economy becomes more stable. This proves that FedEx is confident that money spent on developing its information system will reap benefits based on past experiences of profitable investment. But are all the investments worth to be seen as asset to the company, or are the investments just merely expenditures with no return? We will look at this issue in the following passage.

FedEx investments in technology have seen a great deal of success that made FedEx a leader of information technology in the industry. An example of these successes is the one and only FedEx PowerPad, which uses wireless technology to provide services to its customers, have come a long way from radio, data and customer networks.[10] The success of PowerPad is its ability to automatically map the most suitable communications channel to move data; it may choose to utilize GPRS, Bluetooth or 802. 11b.[10] With the use of PowerPad, the pick-up time for couriers has been slashed by approximately 25%. As a result, more efficient pick-up and delivery of packages can be achieved and hence higher profit for FedEx. [10]

Besides, wireless technology has also helped FedEx to provide its customers with highly reliable and fast services. This is because the use of wireless technology in FedEx is far more superior and advanced than other shipping

companies.[11] FedEx uses wireless technology to transmit all information in real-time regarding all packages' location, status, temperature, or condition in any step of its shipping process. To access FedEx website or track packages in shipping process, customers could do it through any web-enabled devices, such as cell phones, laptops, personal digital assistants (PDAs), and also two-way pagers.[11] In addition, the services are free to all customers and are very user-friendly. Customers need not navigate through cumbersome registration process or tutorials. The power of wireless technology has enabled FedEx to truly embrace a world without borders, and the investment do not only benefit the company now, but it will also be a cornerstone for future technology advancement and development in FedEx.

From the success of PowerPad, one would think that the investment in information system will only reap profits without any unwanted consequences. However, even in FedEx, there are still investments that had gone awry or cost a lot more than expected, such as the RFID technology. As discussed previously under topic—, RFID was seen as a more superior and technologically advanced compared to barcode scanning. However, according to FedEx Asia Pacific CIO, Linda Brigance, announced that the research and development team of FedEx testing on RFID still showed a scanning failure rates as high as 25%. To make things worse, more than half of the remaining 75% of scanning have encountered problems.[10]

Figure 3 : FedEx RFID Velcro Wristband [3]

However, for the good old barcodes scanning, the accuracy rate is as high as 99.9%.[10] This was a major setback to FedEx and they will have to wait for

a longer period to actually make sure that RFID will obtain the same or higher accuracy rate as barcodes. This is especially important as the parcels and packages will be scanned up to 20 times en route to their destination.

[10] Therefore, the deployment of this RFID system will need to take a longer period than the expected time. This will constitute a loss to FedEx as money has to be spent on the testing and development of RFID and at the same time it needed more time to be usable in the system. The RFID is ultimately will be a significant success in future, but it has nonetheless caused FedEx a great deal of drawback and disappointment.

IMPACT OF FEDEX INFORMATION SYSTEM AND TECHNOLOGY INVESTMENT ON COMPETITORS

Nowadays, the changes experienced by the industry are mainly caused by the technological advancements of the major competitors. The principal competitors of FedEx in the international market are DHL, UPS, foreign postal authorities such as Deutsche Post and TNT, passenger airlines, freight forwarders, and all-cargo airlines.[4] Because of the highly competitive environment, the ability to compete effectively depends upon ability to track packages, extent of geographic coverage, frequency and capacity of scheduled service, price, reliability and innovative service offerings.[4]

Competitor's Technology Advancement

FedEx advancement of technologies had propelled competitors to improve their information system and technology as well. For example, UPS is now the biggest competitor of FedEx in the industry.[4]

Figure 4 : Financial position of FDX and competitors for year 2009 and 2010[12]

As their core business increasing overlap each other, FedEx and UPS have involved in even more intense competition.[13] In terms of information system and technology, FedEx and UPS both continuously launched new gadgets and system to improve operation and customer service to outdo each other. As previously discussed under topic ~~~, we have seen FedEx rolled out its PowerPad device and its use of wireless technology to provide top notch customer service. Unwilling to be left behind in the ever-changing IT world, in 2006, UPS also launched its own equivalent of PowerPad, which is known as DIAD (Delivery Information Acquisition Device) IV, which is able to transmit data directly to UPS using a cellular connection. [13] The DIAD IV is expected to be mounted with GPS (Global Positioning System) tracking system so that couriers can provide better customer services. [13]

Figure 5 : UPS DIAD IV [18]

Both the giants are estimated to spend USD 120 million a year on wireless technology; [13] this proves that both the company believed wireless technology is the key to ensure real time data transmission to improve operation and also customer service. While FedEx started to implement its wireless networks in 1999, UPS waited until 2003 to begin to update its wireless technologies to improve scanning and tracking. [13] Therefore it is apparent here that FedEx can be considered as a leader in IT of the freight service industry, and its constant investment in technologies have caused other competitors to do the same.

Difficult Entry For New Companies

The air freight and air cargo transportation industry can be considered as an oligopolistic industry.[1] Oligopoly is a market condition in which the production of identical or similar products or services is concentrated in a few large firms.[14] In this case, FedEx, DHL, UPS are the major players of the market.[4] Because of the strong brand image of these major leaders, new companies will encounter difficulty and great barriers to enter the market. To start an express transportation company, economies of scale could be reached by going global.[1] This will require large amounts of capital and resources, in terms of establishing hubs and routes, hiring workers, procuring various modes of transportation, and also technological advancements to satisfy high customer expectation set by industry leaders.

With the information system and technology currently used in FedEx, competitors, especially new entrants and small companies, will have a hard time catching up to FedEx. They will need financial resources to procure or design their own information system, and also to possess knowledgeable and skilled manpower to control and monitor their system. FedEx have come a long way to be a leader of advanced technology in the industry, they not only have the resources to research and develop new system and technology to improve their services, but they also have the expertise and valuable experiences to provide the best IT solutions and services to customers. These are all invaluable resources that new entrants to the industry lack. Therefore, their entrance to the market will be very difficult.

Besides that, the industry is also in the maturity industry life cycle stage, where the growth of the industry is slowing.[15] This can be shown by the

<https://assignbuster.com/financial-analysis-case-study-fedex/>

recent economic downturn in 2010, which has caused the competitors of FedEx to scale back on expansion. But instead of seeing the recession as a threat, , FedEx Express Chief Information Officer for Asia Pacific, Linda Brigance believed that they can gain competitive advantage with smart information system decisions.[9] With FedEx seizing this opportunity to expand its global reach with information technology, new companies will face even tougher competition.

Acquisition Of Competitors

With the expansion of FedEx, it has acquired many companies to gradually increase and enhance its services to new dimension. With these acquisitions, FedEx not only acquire the existing customers of the companies, but also to help FedEx to reach other international routes and networks that were once off-limits.

FedEx Freights is an example of merger and acquisition of two companies that were once independent entities, namely American Freightways and Viking Freight. [16] As a result of this acquisition, FedEx Freight, a less-than-truckload (LTL) subsidiary of FedEx was established in the year 2000 which is worth USD 1. 9 billion. [16] Viking Freight is a originally a leader in LTL carrier in the western United States while American Freightways services 40 states in United States. [16] By combining the two companies, FedEx is now able to offer customers that require high customer service in LTL delivery. [16] However, these companies are not technological forward at the time FedEx acquired them. From this, it is evident that with the constant technological advancement of FedEx, it will outdo other competitors and

slowly these companies will lose its competitive edge and acquisition by major leaders will be inevitable.

In 2006, with an estimated £120 million (USD 235. 2 million), FedEx acquired a domestic express transportation company, ANC Holdings Ltd., which is based in United Kingdom.[17] The purpose of the acquisition is to directly serve the British domestic customers entirely. This investment helps FedEx to extend its service to a global express industry.[17] According to Robert Elliot, president of FedEx for Europe, Middle East, Africa and Indian subcontinent region, as the British market continues to expand; users are seeking for a single transportation service provider that can cater for domestic and also international shipping.[17] British customers believed that this will better enhance their global supply chain management as they want to take advantage of the explosive growth of internet and e-commerce, and also a faster supply chain.[17] FedEx realized that with their strong foundation in information system and technology, they are able to provide British customers with what ANC Holdings Ltd. could not. Therefore, once again, advancement in technology has enabled FedEx to outdo its competitor even in a foreign country.