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ROLE OF IT TOOLS IN THE COURIER INDUSTRY

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ABSTRACT

Information technology (IT) has changed many businesses and currently changing the transportation system in early stages. Meanwhile, most people believed enhancing the transportation system of a nation meant constructing new roads or refurbishing old infrastructures, future transportation depend not only in steel and concrete but also in progressively employing information technology. IT facilitated the intelligence aspects within transportation system such as vehicles, roads, traffic light, message signs by equipped with sensors and microchips. This empowers the communication of these tools with one another through wireless technologies. This study aims to present an introduction on transportation in the courier industry. The study had used interview since relevant method of investigation which explored issues in profound manner. The interview with operation manager in FedEx was aimed to determine the individual opinion on FedEx IT tools in Saudi Arabia and main reason for their opinion. FedEx has benefited from these tools. However, because GPS and GIS are not available everywhere, FedEx needs to find another more effective alternative tool in Saudi Arabia. Customers need to be aware of electronic freight services, and FedEx needs innovative delivery services to meet customer needs because their deliveries cannot reach their homes. The government role also led FedEx to exclude RFID tools because Saudi Arabia does not allow it.

INTRODUCTION

All transportation systems are developing. The information technology (IT) tools are playing a very important and essential factor in the life development. Logistics and supply chain management are important factor for the companies to obtain competitive edge [1]. The transportation cost is considered as one-third of total logistic cost, hence managing and integrating the system is essential [2]. Transportation activities had included whole supply chain, from the supplier to final consumers [3]. Nowadays, IT is in early stages of transforming the transportation system included industries such as

education and healthcare. Transportation is singles largest logistical cost for most organization and these expenses significantly impact supply chain's fiscal effectiveness [4].

Logistics management is defined as supply chain process part of planning, implementing and controlling the efficient, effective flow and storage of goods, services and related information from origin point to consumption point for conforming purpose to the customer requirement [1]. In additions, logistics is described as an expanding, evolving academic discipline that does not appear to be approaching full maturity in the near term [5]. Logistics abilities are positively correlated with the performance [6].

Important key terms such as logistics, inbound logistics, material management and physical distribution are used. Meanwhile, supply chain management and logistics is defined complex organization included operations processes, transportation and goods movement between supplier companies, customers and end consumers [6]. Inbound logistics is describes the movement of materials received from suppliers. Materials management described material and components movement within firm. Physical distribution refers to the good outward movement from end of the assembly line to the customer. Logistics is responsible for all aspects of the movement and storage of materials from original supplier to the final customer [7].

Transportation plays a major role among several steps in logistics from production to consumers. It plans all function or sub-function in a system of goods movement to minimize cost and maximize service which constitutes the concept of business logistics. The production, storages, wholesaling, retail sale and merchandising establishments required transportation. Besides, production required resources or raw materials and supplies (with or without storage) that need to be transported. Moreover, the transport system reflects logistics performance [8].

City logistics is the process for logistics and transportation activities optimization by private companies with the support of advanced information systems in urban areas considering the traffic environment, its congestion, safety and energy savings within the framework of a market economy [9]. Cities are most important location for business activities which plays major role in economic development.

In this study, the main objective was identified and discussed main information technology (IT) tools that helped to achieve improvement in the transportation process such as e-shipping, radio frequency identification devices (RFID), Global Positioning System (GPS) and Geographical Information Systems (GIS). This study aims to present an introduction on transportation in the courier industry.

METHODOLOGY

In this study, both primary and secondary data was used. Secondary data was collected to review literature through academic journals and other dissertations. Data gathering was significant element to carry on the study. Nevertheless, the

data gathering type method used relied on the study objectives and benefits of every method. The primary data was gathered through examination of the perception of FedEx manager at the Saudi branch concerned on IT tool used by the company in its operations.

In an interview, the interviewer asked several questions to the interviewee which used face-to-face technique which the inquiries were arranged in accordance with the interview objectives. The interviewees tried to offer elaborated answers in open-ended questions. Most types of interviews were structured interviews. The structured interviews boast several questions prior with the respondent.

Interview was main type of data gathering technique used in this study. The interviews were a systematic method of speaking and listening through conversations. In additions, an interviewee discussed the interpretation and perception with respect to a particular situation. Many interview questions were prepared to be administered to the participant. There are several abilities and skills such as listening, capacity of being non-judgmental, good memory and thinking ability.

The study had used interview since relevant method of investigation which explored issues in profound manner. The interview with operation manager in FedEx was aimed to determine the individual opinion on FedEx IT tools in Saudi Arabia and main reason for their opinion. The interview intensified and clarified arithmetical data.

The information collection through the interview was beneficial since able to acquire through data concerning their personal opinions, perceptions and sentiments. The interview facilitated more comprehensive questions to be inquired. The interview was only method that obtained higher rate of response.

RESULT AND DISCUSSION

The FedEx branch manager had mentioned FedEx Corporation built a wireless network even technological advancement helped the organization to create a modern spectrum that managed its workforce through digital transmission. The first system used by the personnel was known as Digitally Assisted Dispatch System (DADS) which facilitated the sending of text messages between couriers. Besides, the company operated under quiet systems since the data could appear on CRT (Cathode - Ray Tube) screens which were similar to e-mails.

The voice communication is necessity for the company. The organization also started to create effective systems through radio technology. FedEx had become sophisticated. Wireless became pervasive and utilized such knowledge to leverage ahead. In additions, FedEx Company provided mobiles to its employees to keep in touch.

According to the manager, FedEx Corporation was business which basically set of system that was all interconnected. The company had courier van,

airplane, telecommunication and truck networks which all interconnected at diverse points made FedEx a crucial network organization.

First IT tool explained by the manager was e-shipping. The web-based shipping application allowed the employees to verify the status of all shipments sent to the clients in Saudi Arabia through the company’s web page. The company also offered integrated solutions to consumers with respect to the sale and supply chain needs. E-commerce solutions at Saudi offices allowed the incorporation of transportation and Information System (IS) at FedEx.

The manager explained that e-shipping was an important tool that helped the company to grow in Saudi Arabia. However, the organization faced several challenges on tool implementation in the operation. First problem was websites creation that used to confirm the information concerned their shipment was very expensive. The web pages need additional costs that would not require if e-shipping was not used. Another challenge would be technological advancement. The FedEx branch in Saudi Arabia ensured that web pages were up-to-date which consumed more time and expenses. In additions, the company was suffered from malfunctions created by the hackers and other internet criminals. FedEx Company (Saudi branch) decided to open their own way of e-shipping. A service was launched called “STORE2DOOR”. The service idea was to allow the customers in Saudi Arabia to buy goods from US retailers. FedEx was shipped the goods to their preferred delivery address. FedEx had offered customers the choice for desired shipping time which could be either immediately or after two weeks or after one month.

Table 1: The options of service features in FedEx (FedEx)

Service features	Silver	Gold
Setup Fee (SAR)	100	500
Annual Fee (SAR)	Free	500
Delivery to your residence, business address or preferred location in Saudi Arabia	No	Yes
Receive your packages from any of our 130 retail service centers in Saudi Arabia	Yes	Yes
Package (purchased items) consolidation to reduce shipping cost	Yes	Yes
Re-packing packages for protection and reduce dimensional weight	Yes	Yes
Free insurance of your shipments up to 100\$ USD of declared value	Yes	Yes
Additional insurance (optional)	Yes	Yes
Online shipment tracking	Yes	Yes
Storage of purchased packages up to 30 days	Yes	Yes
Preparation of commercial invoice	Yes	Yes

There were two levels gold and silver and each had different values. One of gold service was to ship the goods till the business or houses but silver service was an economical service which manages the shipment to the delivery point.

The second step was select online shopping sites from US. The customer ordered items from auctions, famous brand stores and small retailer's website such as Amazon or Apple and entered STORE2DOOR given address as customer shipping address for US purchase. A notification had sent through email or SMS with packages information once the items were arrived at US address.

There were several options such as Automatic Shipping which the packages were shipped automatically within a time frame (1-3 business days) upon its arrival such as weekly shipping which the packages were consolidated and shipped after 7 days after the arrival of the first package. Meanwhile, bi-weekly shipping which the packages were consolidated and shipped after 14 days from the first package arrival and monthly shipping which the packages were consolidated and shipped after 30 days from first package arrival.

The second IT tool addresses by the manager was Radio Frequency Identification Device (RFID) used to trail the vehicles and goods. The RFIDs were active or passive. The active consistently produced radio frequency signals while the passive emitted signals after being questioned by external sources.

The benefits of RFID tags usage, FedEx branch in Saudi Arabia faced similar challenges to its counterparts in the world. The challenges to its counterparts in the world such as failure to track some shipments especially their frequencies were tampered with items security. Furthermore, second challenge was created by the failure to offer sufficient the security due to security breach. Meanwhile, the shipments was lost in Saudi Arabia, FedEx compensated for these shipments to the clients caused extra expenses that had been used in other operations.

FedEx had experienced second challenge was the system scope and size. The endpoints and global aspects that ensured that the company operated in Saudi Arabia created more problems for the company. The managers had been mentioned that Saudi Arabia was not allowed tool usage due to security issues. The third tool was GPS which tracked the shipping from FedEx website to determine current location. The employee only entered bar code number that see all discrete information on this shipment included location, size, weight, transportation mode, sender and receiver name and shipment fee.

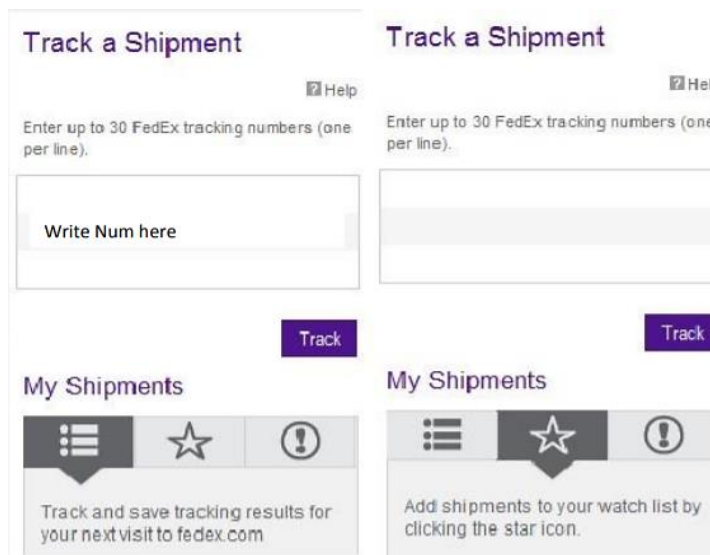


Figure 1: Track shipping in FedEx website

Figure 1 showed customer inserted the numbers to track the shipment. Besides, the customer also managed to save the shipment location on the last track. The star icon meant customer did not need to enter 30 numbers once need to track a shipment. The numbers was added under this icon and next time needs to track the shipment with pressed “track”. Exclamation mark icon mentioned the comments from FedEx Company on the shipment. This service ensured FedEx customers on their shipment was safe.

In additions, FedEx was finding the solution in made delivery become easier with using Saudi post. The customer was required to fill the address application with number of Saudi post which consisted of 5 digit numbers. FedEx Company was entering the information on Saud post website with region, city, district, street and post code so that the company could find the customer house. FedEx could reduce its cost and improve its efficiency if flowed these ways.

The operation manager mentioned that FedEx Company had grown to become world leading organization dealing with shipments. Therefore, the experts in the company were on stand-by for malfunction machine that happened on anytime. The experts ensured that frequent inspections and system upgrade had been done on the machines. The employees also able to track and identify unauthorized access could sometimes cause malfunctions.

In additions, operation in FedEx Saudi Arabia was slower for several causes such as no house address. Nevertheless, the company had set specific times for shipment delivery.



Figure 2: Locator of Saudi post

CONCLUSION

In conclusions, FedEx Corporation had gain benefits from the tools .However, FedEx need to find another alternative tool which works better in Saudi Arabia since GPS and GIS did not work for everywhere. The customer need to aware on e-shipping service and FedEx need to be innovative with its delivery services to satisfy its customers as their delivery did not reach their home. The government role also leads FedEx Company to exclude RFID tools since it's not allowed in Saudi Arabia.

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