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Research Article

IMPACT OF INFORMATION TECHNOLOGY IN RETAIL

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Abstract

Due to increased globalization in retail sector, information technology has its impact on retail sector, in terms of point-of-sale and point-of-supply. Technology has changed buying behavior of customer everywhere. The increased deployment of new technologies such as smart mobile devices and social networks and the growing importance of in-store technological solutions create new opportunities and challenges for retailers. With enhanced speed and flexibility information technology has entered into each and every part of retail whether it is market knowledge or control of data and information to obtain competitive advantage or retailer's day to day operations. So, this paper presents the results of the impact of information technology in retail, new business models, and the future role of traditional stores as e-commerce advances.

***Key Words**:* E tail, in-store retail, mobile sales, multichannel, online selling, social networks.

Objective of the Paper: To study impact of information technology implemented in retail stores.

This paper presents the main issues related to the technology impact in the retail sector. The information technology has been used in almost all the spheres of the business. With this evolution, the physical structure is also continuously changing and they are evolving with respect to speed and configuration. With the business of the retail organizations and other sectors growing day by day, a large amount of data is captured on daily basis. This data is converted into the useful form known as Information for the analysis done by the managers by the use of 'Management Information Systems'.

The impact of Information Technology implemented in retail stores is as follow:

» **Maximization of the value generated from the product:** With the use of IT in Retail the organization can keep a very close watch on the products. The slow moving and fast moving products can be easily identified from the database of supply chain where the products are automatically reduced once they are dispatched / sold.

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Thus the company can minimize the production of those slow moving products and save huge amount blocked in inventory.Similarly the database helps to identify those products which are near to their expiry date. If those products are not sold immediately they may become scrap after expiry date. Hence the company can offer SALE or call them back to manufacturing plant for reformation so that maximum value can be extracted out of them.

» **Minimization of Bottlenecks:** The supply chain for a company starts at the procurement of the raw material and goes on till the product is made available at the point where the customer has access. In the absence of IT in supply chain, the planning, timing and routing of the vehicles was a difficult task and various bottlenecks could lead to delayed deliveries and increase in the cost.

» **Making accurate Sales Forecast:** The effective IT used in Retail supply chain helps the company to regularly watch the sales trends and accordingly to make accurate sales forecasts. This helps them to procure only the sufficient inventory thus saving from blocking money unnecessarily. The inventory management system also makes recommendations on likely product orders to be made.

» **Reducing the Lead Time:** Lead Time is the time gap between placing the order and receiving the material. This lead time can be both from the supplier side (the time when the company placed an order with the supplier and when it received the raw material) and from the customer side (the time when the customer placed the order to the company and when he received the material). With the use of Information technology, the orders can be placed by the customer / salesman immediately online and the company receives the processed order within very short period of time. The processing of the goods starts immediately. The same goods are delivered to the customer in the lesser time period (lesser than the time when this order placing system was offline). Also this gives advantage to the customer that he gets more time to decide for placing the order.

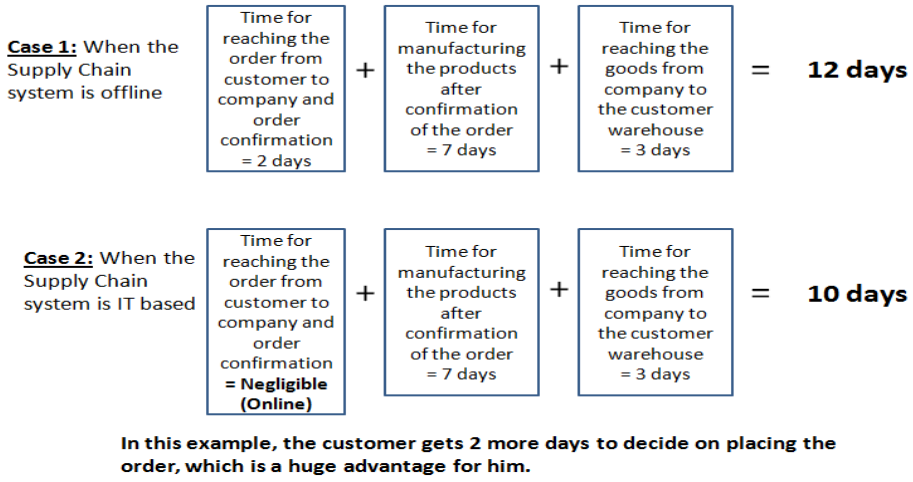

Fig.: Reduction of Lead Time by using IT in Supply Chain

The above example shows how the use of IT system in Supply Chain helps the customers to have a buffer of two more days and this helps him to modify the order till the last point.

» **Immediate Decision making**: Information Technology helps to make available the vital information to the Supply Chain Managers within very little time period. This helps them to take the decisions in any situation very easily and in least time period.

» **Fastening the receiving process**: As soon as the goods are dispatched from the company the invoice and the delivery documents are sent in the soft form to the customer. The goods thus become the 'Inventory' of the customer (Inventory which is in transit). Similarly the payments process can be started immediately and the recovery becomes much faster.

» **Route Planning:** The use of Information Technology plays the crucial role in planning the delivery routes which take minimum time and can be managed with least cost. The use of various models such as transportation models online can make this route planning very easier. As the ordering process is also online the software manages the delivery dates and also suggests which orders can be sent together in one vehicle on the same day so as to minimize the delivery costs (by sharing it between two or more orders).

» **Increasing Efficiency and Effectiveness**: The supply chain is one such department which has to co-ordinate with various other departments on constant basis. This department always gets the last minute information and sometimes the instructions are changed even when the vehicle is dispatched. This keeps this department always on its toes. The use of Information technology is very beneficial for this department as this helps to schedule the vehicles and make timely and correct deliveries. The use of IT makes the functioning of this department much more effective and efficient.

» **Scheduling the manufacturing of orders:** The use of Information Technology helps the company to schedule different batches (which order is to be manufactured first, which second and so on) on the basis of various parameters such as availability of the raw material, the possible date of arrival of the raw material, the committed delivery dates, the urgency of the orders and so on. All this data is fed in the system at the time of order booking or in subsequent stages.

» **Enhancement of the relations with the customers:** Customers are always concerned about getting the material in the right quantities at the right time after they place the order. In the absence of the Information technology, the supply chain department was not able to know the exact position of the vehicle (where the vehicle was exactly going at which point of time), the change in orders was not communicated on time to the supply chain department and so on. Thus it was not possible to inform the customers in advance about the changes (if any) which lead to dissatisfied customers. The introduction of IT in supply chain helps avoid such problems and leads to better relations with the customers.

» **Handling the competition**: More and more businesses are going online. The companies are using this Information Technology to their competitive advantage. In the current market situation it becomes necessary for all the companies to include IT in their Supply Chain

function. Otherwise the competitors will completely take over the customer base by creating satisfied customers.

» **Smooth audits:** The Information Technology systems help the warehouse staff to manage the records online. Whenever any order is dispatched the same is reduced from the inventory levels by the RFID / Barcode scanning.

Fig.: Barcode

When the companies conduct the audits to check if the actual inventory matches with the inventory in records, it helps in:

- Easy assessment as the inventory calculations on the paper is not there (and the inventory records are readily available online)
- The chances of manual error is reduced due to online / automatic scanning
- This reduces the differences in inventory levels between the actual stock and the stock on records

» **Measuring Performance:** The Information Technology also helps to measure the performance of the overall systems and processes.

Conclusion

The papers in this issue provide a valuable contribution to understanding the role of information technology in retailing. The increasing use of mobile devices and social networks makes the traditional online–physical channel dichotomy obsolete, as the lines between channels are blurred. From these changes a new business model is emerging—the omnichannel, which will be less focused on the channel used and more on the interaction between the customer and the brand. However, before such a level of cross-channel integration can be achieved, retailers aiming to implement an omnichannel strategy may need to focus on including mobile and social networks as new channels, balancing privacy and customization, and redesigning their supply chain network, while at the same time keeping in mind different customer requirements.

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