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Reverse Logistics in E-commerce

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Reverse logistic is defined as “the process of moving goods from their typical final destination for the purpose of capturing value, or proper disposal. Remanufacturing and refurbishing activities also may be included in the definition of reverse logistics.” In case of e-commerce it is the movement of goods from the customers end back to the supplier. This research paper studies two component of this reverse supply chain that is the reasons for return of the products and various barriers which can impact this reverse supply chain. In other words this research paper investigates various barriers in reverse logistics which become a major hurdle in the reverse flow of product that is the flow from the customer to the place of origin. This research paper starts with the basic understanding of reverse logistics. Further we design a flow chart for a pictorial representation of reverse logistics and finally enumerate various barriers in reverse logistics.

Keywords: Reverse logistic, e-commerce, remanufacturing, refurbishing, supply chain

Access this Article Online	Quick Response Code: 
Website: http://heb-nic.in/view-latest-issue	
Received on 22/12/2018	
Accepted on 25/12/2018 © HEBAll rights reserved	

Introduction:

The E-commerce industry in India is at a fast growth phase. As per the Indian Brand Equity Foundation the e-commerce industry is expected to grow to US\$ 200 billion by 2026 from US\$ 38.5 billion as of 2017. The reason for the growth is due to the penetration of internet and smart phones. The “India’s E-commerce revenue is expected to jump from US\$ 39 billion in 2017 to US\$ 120 billion in 2020, growing at an annual rate of 51 per cent, the highest in the world”. Government of India has taken a major initiative namely Digital India, Make in India, Start-up India, Skill India and Innovation Fund. Some of the major initiatives taken by the government to promote the E-commerce sector in India are to 1) increase the foreign direct investment in the E-commerce market place up to 100% in the B2B models. 2) In the Union budget of 2018-19 the government has allocated Rs 8000 crore to BharatNet Project, to provide broad band services to 150,000 gram panchayats.

Reverse Logistic:

The reverse logistics start after the goods/product have been delivered to consumer or the consumer had purchased the product via retail shop, mega store or hyper store etc but due to various reasons like defective, damage product, difference in size, shape, color of the product. Expired, stale or rotten food product delivered, or just the customer did not like it and want to return the product as lot many online sellers offer it to the customer for free return within a stipulated time frame from the delivery date. The movement of this returned product back to the seller via various channels is referred to as the reverse logistics.

The reverse logistics also covers the recovery of used machines from various industries like in hospital using machines for treatment of cancer which uses various isotopes for radiation therapy and if these machines are left to junk the radioactive material may leak in the atmosphere and create havoc. So the recovery of such equipments in a sequential manner for the benefit of the recovering company in the form of monetary benefits and taking benefits from the government and other environmental organizations in the form of getting carbon credits and getting safe guard from other agencies and as well as protecting the radioactive material from reaching the wrong or mischievous people.

The Reverse logistics also covers the – Buyback of product at the end of product life, return in guarantee or warranty period. Now with anti use of plastics and new rules and regulations to buy back the used plastics water bottles, cold drink bottles, juices, milk tetra packs, milk pouches, packed material for various ready to eat snacks companies and local bodies and NGO have to install bottle crushers, collection machines for used plastics materials at prominent public places like stations, bus depots, malls, schools & colleges. Now once the used various form of plastics is crushed and made into a compact lump it has to be collected to be send for recycling to the nearest processing plant this kind of movement of goods will also add into the chain of logistics as reverse logistics.

Reverse Logistics can be termed as R. T.O = Return To Origin

Return of product is different from supply as the packaging changes, since the new product packaging is opened and hence the repackaging at consumer end cannot be same like a factory stuff goods which is very neatly packed. Hence the volume of the product increases, the dimensions of outer carton/ package also changes. If it is a perishable item then the problem for reverse logistics company and people as the perishable item will throw out a horrible stench horrible for the person moving good it will be like a garbage vehicle it may spoil other products being taken by the same logistic company in the same vehicle. There is no risk on part of the consumer who is ordering online as the company itself promises that they will accept return free of cost within stipulated time. So here customer is in a win-win situation – He can order more quantity of varying nature to make a selection analyze it and then return all. Here we need an analysis of such customers also

Keeping the above view companies like Amazon and FlipKart had stopped delivering their product on cash on delivery in at least two states namely Uttar Pradesh and Bihar where people were using the facility of cash on delivery and then not accepting the product on arrival, the company has done away with the features of cash on delivery but also restricted on the ratio of return of percentage to the goods ordered and accepted by the customer the current ratio for amazon stands at 10: 1 which states that for no more than 10 valid accepted ordered by it customer not more than 1 product should be returned if more number happens amazon cancel that return offer on that particular customer or all together bar that person for certain number of days for placing order.

The reverse logistics program gaining importance in India in a big way as now all the big international players like Amazon have jumped into the market online as well as offline the traditional market in full swing.

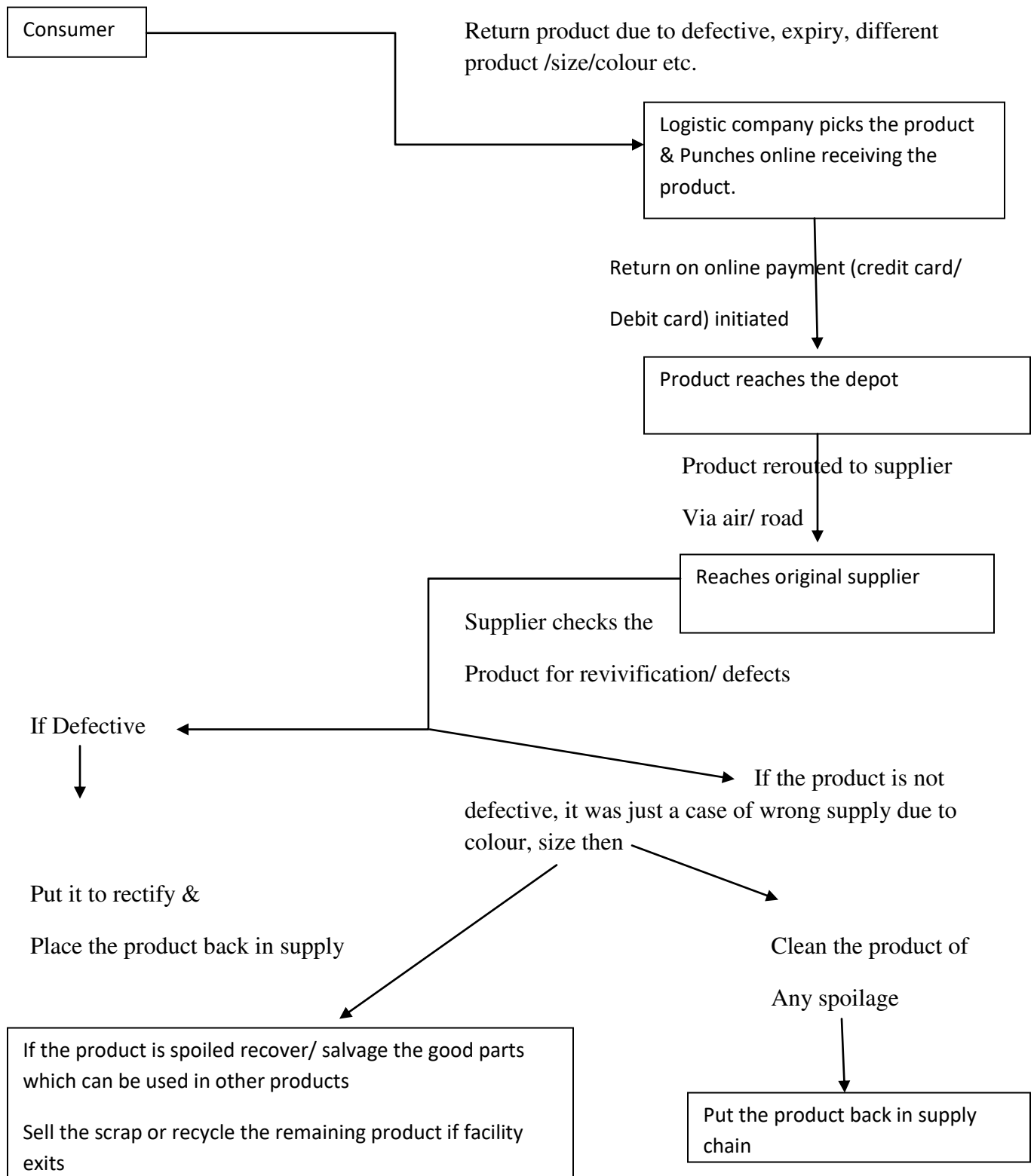
We will take examples of FlipKart being bought over by none other than Wal-Mart, Amazon, Grofers, Big basket to name a few : As the online market has really become big in terms of product catalogue, volume of inventory sold so in terms of money transaction this has become huge.

Wal-Mart bought FlipKart for a whopping 8 Billion dollars which brought in taxes to the level of 900 million dollar to the government of India this news bring in lot of cheers from all sectors.

James R Stock was the first to use the term reverse logistics in a white paper in 1992 in a research paper published by the council of logistics management his Studies shows that on an average of 5% of all retail products are returned.

The Figure 1. below gives a complete flow chart for the reverse logistic process. It start form the customer getting the product shipping ready and includes the intermediaries who will carry the product back to the E-commerce companies. Finally the companies on receipt will ship the product to the end suppliers. The process will end only after the money is transferred from the supplier to the customer of a new product is shipped back to the customer. This depends on the return policy of E-commerce companies.

Fig 1. Flow Chart for Reverse Logistics:



Barriers can be classified under the category of:

1. Organizational and Management Barriers
 - a. Lack of competence and knowledge of top management about reverse logistic
 - b. Lack of competence and knowledge of employees about reverse logistics
 - c. Employees resistant to change
 - d. Inadequate internal and external communication of the organization about reverse product flow.
 - e. Lack of corporation with scientific institution and professional associations, in order to gain knowledge and track trends in fields
 - f. Limited capabilities of predicting and planning reverse flows of material
 - g. Lack of top management commitment
2. Technical and Technological Barriers
 - a. The structure and size of the organization is not suited for implementing reverse logistic
 - b. Lack of adequate technical and technological capacities
 - c. The lack of a system for measuring and managing the performance of reverse logistics
 - d. The difficulties in providing the required product quality and uniformity
 - e. Difficulties in designing product suitable for recycling and or reuse
3. Economical and Financial Barriers
 - a. Lack of financial resources
 - b. High initial and operating cost of reverse logistic
 - c. The lack of bank finding for green technologies and lack of incentives by the state
 - d. Existence of risk regarding the functioning of reverse logistics and economic benefits that would be achieved
4. Market related and political barriers
 - a. Lack of legislation related to reverse logistics and lack of support from the state
 - b. Lack of corporation with partners in the supply chain
 - c. Users perception of the poor quality of used products
 - d. Lack of knowledge of users about the rights and possibilities of returning used products to the manufacturer

Conclusion

- ❖ Reverse Logistics is an important part of E-commerce as invariably goods are returned by the customers for various reasons. This reverse chain becomes more necessary when we need to retain customers and keep them with us as loyal customers. Every company should design the reverse chain considering two aspects one is the logical design and another is the physical design.

The logical design includes activities like make a proper return policy keeping in mind various factors such as price of product, product quality, product policy and perceived value of the product. Proper standard operating procedure has to be designed and communicated to all stake holders. The physical design is the physical activity start from packing and picking the product from the customer place and transporting it to the seller. Based on the return policy either returning the money of shipping of new product. In case the product is not reusable arranging the scrapping of product. In case the product is reusable then placing the product back in the supply chain. All this is possible only if the above mentioned barriers are removed by the management of the E-commerce companies.

- ❖ Barriers are broken into various sections such as management related, operation related, economic, and market, political related. Another area which cannot be overlooked is the awareness level of the customers with respect to reverse logistic process. Many a times the customer overlook the return policy and get stuck later just to blame the company. Sometime the customer deliberately purchase use the product and return it giving some superficial reason. All this cost the company dearly.

Acknowledgement

Author expresses gratitude to Dr.SatishBilawar ,Research Guide, JJTU University , Rajasthan for his valuable comments and suggestions in the preparation of the research paper .

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