Product Recalls as an Important Category of Reverse Logistics

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Abstract. Product Recalls (PR) has become an important concept in today’s supply chain operations. Besides being a part of reverse logistics, it was hard to find in literature a precise differentiation from some recycling terminology. This study starts with a detailed explanation of Product Recalls concept, and then continues with the processes carried out in product recalls, and also explains the other categories of reverse logistics. With all that, the general information about reverse logistics will also be included in the research area of this study as a separate part. Precisely, the literature shows valid examples of direct relation between recall of products and their demand. In light of the literature, and real-world examples product recalls are examined to better explain the concept of reverse logistics. Finally, the green logistics concept and further discussion areas are also examined.

Introduction

A product recall is a request to return a product after the discovery of safety issues or product defects that might endanger the consumer or put the maker/seller at risk of legal action. Individuals involved in bringing a new product to market strive to do whatever they can to insure that the product performs its intended function efficiently, effectively, and safely. Unfortunately, mishances can occur. When such an incident occurs, the firm has to move quickly and effectively to remedy the situation, since defective products can ruin a brand or even an entire company. Product recalls are the method by which companies get defective products back from customers so that they may be replaced or repaired. All too often, however, product recalls are not handled well by companies, since they do not have a plan in place and are therefore ill prepared for such situations [1].

The recall is an effort to limit liability for corporate negligence which can cause significant legal costs due to releasing to the consumer a product that could endanger someone's life and the economic loss resulting from unwanted publicity. Recalls are costly having to handle the recalled product, replacing it and possibly being held financially responsible for the consequences of the recalled product.

Also, in another study, Chen [2] shows that regardless of firm and product characteristics, proactive strategies have a more negative effect on firm value than more passive strategies. An explanation for this surprising result is that the stock market interprets proactive strategies as a signal of substantial financial losses to the firm. When a firm proactively manages a product recall, the stock market infers that the consequence of the product-harm crisis is sufficiently severe that the firm had no choice but to act swiftly to reduce potential financial losses. Therefore, firms dealing with product recalls must be sensitive to how investors might interpret a proactive strategy and be aware of its potential drawbacks.

A country's consumer protection laws will have specific requirements in regard to product recalls. Such regulations may include how much of the cost the maker will have to bear, situations in which a recall is compulsory (usually because the risk is big enough and remarkable), or penalties for failure to recall. The firm may also initiate a recall voluntarily, perhaps subject to the same regulations as if the recall were compulsory.
**Product Recall Steps**

A product recall usually involves the following steps, which may differ according to local laws [3]. Maker or dealer notifies the authorities responsible of their intention to recall a product. In some cases the government can also request a recall of a product. Consumer hotlines or other communication channels are established. The scope of the recall, that is, which serial numbers or batch numbers etc. are recalled, is often specified.

Product recall announcements are released on the respective government agency's website (if applicable), as well as in paid notices in the metropolitan daily newspapers. In some circumstances, heightened publicity will also result in news television reports advising of the recall. When a consumer group learns of a recall it will also notify the public by various means. Typically, the consumer is advised to return the goods, regardless of condition, to the seller for a full refund or modification.

Avenues for possible consumer compensation will vary depending on the specific laws governing consumer trade protection and the cause of recall. The recall process gives the firm the opportunity to act strategically on whether and when to cooperate with the regulatory agent to issue (or agree to issue) a recall. It can work with the agency to do so earlier in the investigation process, or it can delay to the maximum extent until there is no other choice.

**Reverse Logistics Categories**

Recalls are the first process which comes to our mind about reverse logistics. But, there are many other processes which are covered by reverse logistics concept. Seasonal products, end of life programs, parts and repairs are other examples. Gencer and Akkucuk [3] report different examples about reverse logistics. The same report also classifies reverse logistics activities into different categories, each with their own unique challenges and opportunities. The volume of some of these categories, such as recalled products, can be significantly larger than the number of units returned by customers and often has significantly greater potential liability associated with it.

Recalls: For manufacturers in today's world, it is not a matter of if they will have a product recalled; it is only a matter of when they will have a product recalled. In 2010 there were more than 1,000 different items recalled from the marketplace by various U.S. government regulatory agencies. Among others, these included recalls for used automobiles, toys, pharmaceuticals, consumer electronics and medical devices. When we look at the reasons for the recalls, it is observed that these recalls are ranged from issues with packaging and warning labels to hazardous conditions created by the products. Common recall issues in the electronics industry range from batteries that pose health risks for consumers to potential fire hazards due to faulty electronics and construction. In addition to fines and penalties from regulatory agencies, there can be even greater potential liabilities from lawsuits and the impact on company sales from bad press. Minimizing all of these potential risks from recalled products is a major driver behind the need to develop a comprehensive reverse logistics program.

End-of-Life Programs: End-of-life programs are used to pull older, outdated products from the primary sales channel in order to make way for new models. This is often the case for product categories such as consumer electronics, household goods, software, security equipment and electronic accessories. End-of-life programs provide a process that will enable the manufacturer to keep the latest products on the market while ensuring older models are removed from the market in a controlled fashion. This helps maintain a company’s brand image and provides a measure of control over obsolete goods and their final disposition. This category also offers an excellent opportunity for companies to reclaim spare parts or resell in secondary channels.

Seasonal Products: There are many organizations that depend on a particular season to drive sales. These organizations often provide special packaging to promote their products and plan on repackaging any unsold inventories for sale in the following season. Unsold items are recalled by either the original manufacturer or the wholesaler as stipulated in the original sales agreement. Some
product categories, such as soft lines, are sold on the secondary market immediately following the prime selling season. Other products, such as consumer electronics, powered equipment and fragrances, are repackaged and sold in the primary target market within days of being returned. OEM’s (Original Equipment Manufacturer) of all sizes rely on seasonal recall programs to maximize sales, often providing their customers with guaranteed sales options that drive margin to both the buyer and seller. These opportunities make the products take place on the shelves and increase the sale potential of the products.

Parts: Parts fall into the last category of assets that depends on a company’s reverse logistics program. Companies with significant field repair operations can expect close to a quarter of all parts to be returned. Of the parts that are returned, studies have found that again roughly a quarter are inspected, repaired, and/or repackaged and quickly sent back out to the field for use. Reverse logistics programs enable OEMs and ODMs to reduce their overall investment in parts while maintaining the highest level of service, especially in repair networks that depend on the availability of parts. Providing a way to return unused, reclaimed, overstocked or defective parts streamlines the repair process and minimizes the investment by both manufacturers and field service companies.

Other reverse logistics areas that impact the high-tech industry are warranties and repairs. These items may go back to the retailer, but more likely end up back with the manufacturer. In each case, there is an opportunity to provide a quality customer experience that may lead to customer loyalty and positive word-of-mouth exposure. There is also an opportunity for the manufacturer to gain cost- and time-efficiencies in their operations. Products returned for repairs are often treated as inbound shipments, but they are not the same as receiving raw materials or components. Repairs often go into a completely separate workflow, requiring parts, personnel and processes that differ from new products. Without a reverse logistics process and plans in place to manage returns, which are often an unpredictable inbound shipment, companies lack visibility into the volume and the nature of returns. This can result in excessive spending on repair parts and staffing levels. Visibility and tracking are also key for sending repaired product back to customers to ensure efficiency and customer satisfaction. On the consumer side, customers expect repairs and warranty claims to be addressed quickly and accurately, because they are the user and they need to use the products efficiently and effectively. Therefore, how well a company receives, tracks, processes, addresses the repair or warranty claim and then delivers the product back to the customer has value even if money does not change hands. Many electronics companies address these types of returns on some level, but the most competitive implement robust aftermarket services that rely heavily on reverse logistics excellence. In fact, to handle the number of repairs created by the high-tech market, an entirely new sub-industry of third-party repair companies has emerged. Progressive manufacturers who want to gain market share will also adopt advanced exchange programs, which extend the returns policy one step further. With an advanced exchange program, the customer can call their manufacturer for service parts or item replacement and the returns provider will send them the replacement overnight, prior to receiving the original defective item. The defective item will be returned after the customer receives the replacement item. This minimizes downtime for the customer and gives the manufacturer a way to provide shipping containers and instructions that can help to make additional damage to the product minimum during the return. Advanced exchange programs are extremely valuable for manufacturers of high-tech products, medical equipment, and industrial equipment, and companies with significant field service programs that provide on-site customer support.

There are additional reverse logistics categories that are not included in this report which are; return of unsold goods, reusable packaging, refusal of the products in the cash on delivery (COD), and reverse logistics for demonstrations.

Return of unsold goods: In certain industries, goods are distributed to downstream members in the supply chain with the understanding that the goods may be returned for credit if they are not sold e.g., newspapers and magazines. This acts as an incentive for downstream members to carry more stock, because the risk of obsolescence is borne by the upstream supply chain members. However, there is also a distinct risk attached to this logistics concept. The downstream member in the supply chain
might exploit the situation by ordering more stock than is required and returning large volumes. In this way, the downstream partner is able to offer high level of service without carrying the risks associated with large inventories. The supplier effectively finances the inventory for the downstream member. It is therefore important to analyze customers’ accounts for hidden costs.

Reusable packaging: Reusable packaging systems require a closed-loop logistics system. Examples include reusable pallets, tote boxes such as Euro containers, Reusable bottles for milk, soda, and beer, compressed gas cylinders, beer kegs and others.

Refusal of the products in the cash on delivery: In case of e-commerce business, many websites offer the flexibility of cash on delivery (COD) to their customers. Sometimes customers refuse the product at the time of delivery, as there is no commitment to take the product. Then the logistics service provider follows the process of reverse logistics on the refused cargo. It is also known as Return to Origin (RTO). In this process, the e-commerce company adds the refused cargo to its inventory stock again, after proper quality checks as per the company's rules [4].

Reverse Logistics for Demonstrations: In case of the Demonstration of Products to the client as part of Pre-Sales process, The Demonstration equipment is sent to the Customer and has to be returned to maintain Revolving Inventory.

Conclusion

According to reverse logistics authorities, some of the recalled products have no defects, but because of the wrong policies of sales and customer service departments in companies, they are taken into account as defected products, which bring an important unnecessary cost burden on companies. Apart from these, the core characteristics of the products; or strategy and standards of the corporations also affect the decision of a reverse flow of the goods. This decision may not be only up to the originators of the products, but the supply chain actors such as wholesalers or retailers, and also third parties such as legal authorities or charities may rule the reverse flow of sold products. Reverse Logistics is not only to collect the materials, the company has to inspect the defect and may decide to recover it or not, then also evaluate the condition of redistribution of the repaired products. Not only the number, but also how the materials and components are put together, will affect the easiness of re-processing them and therefore the economics of reverse logistics activities [5].

Another issue about Reverse Logistics is the reality that companies and organizations must be more environmentally conscious. They should also focus on sustainable practices and materials, and become more socially responsible corporations to have a competitive advantage. In other words, they should think ‘Green’. The carbon footprint (total impact of energy use and carbon emissions) is also an important environmental issue for the local governments which determines the tax rates of automobiles in Europe. So, the automobile manufacturers might understand the need to eliminate wasteful activity, and they force their suppliers to improve their efforts on reducing carbon footprint. Green supply chain management is seen as an important step companies need to take on the road to sustainable practices [6].

In conclusion, product recalls have both financial and moral advantages. Despite its proactive mechanism to avoid accidents and loss of lives, product recalls are also mandatory for development of the producers. Besides, the product recall ratios are a good signal for consumers to evaluate the quality of different brands, and use the data in their brand selection. Because, mostly the recall ratios are regarded as a quality indicator by the customers. Here, the companies have to decide between the effects of the increasing recall ratio and effects of the disability of the product.

References


