



# Imperatives for Reverse Logistics

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**D**eveloping nations like India are faced with the issue of fragmented supply chains in most of its industrial and service sectors. The infrastructure required is in a woefully under-developed stage. Our transportation systems are yet to keep pace with the requirements of our economy. Our roads do not have sufficient width and are of poor quality. The trucks that ply on them are overloaded and the average truck speeds are low. Our ports are congested and turnaround times are high with respect to international standards. The distribution channel penetration into rural areas and various markets is not efficient for most products. In sectors like agriculture and food, there are massive losses of product in the process of transportation and storage. Our laws on VAT and Motor Vehicle Transport also need a lot of improvement and effective implementation. With all this, we are hard pressed to put in place effective forward supply chains for many goods.

In contrast, developed nations have highly developed supply chains for forward logistics. And now they are concerned with 'Reverse Logistics'. Reverse Logistics is a group of activities that is concerned with the reverse flow of used

products, from the end user to the manufacturer. One of the objectives is to retrieve the residual economic value of the product. Another important objective is to see to it that there is safe disposal or redistribution back into the system, in a useful manner. The group of activities includes collection, inspection, processing, disposal or redistribution. Today we have many products like plastics, white goods etc. which do not get assimilated into the ecosystem at the end of their useful life. But we do have laws in place mandating the establishment of proper channels for batteries and medical waste.

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The reverse logistics flow is 'many to few' as compared to the traditional forward logistics where the flow is 'few to many'. This brings about the need for development of unique channels to ensure reverse flow or calls for effective use of existing channels. Reverse logistics is characterized by uncertainty of material return. That is, the product may be returned at any stage of its life cycle by the customer. It may be in varying stages of reusability. In addition, there is uncertainty in recovery of material. The processing time for such goods is stochastic and variable. Depending on the current condition of the used product, they have non-standard processing times. All this makes the integration of such components and products, into the forward logistics stream very difficult. Thus it is seen that to have a proper reverse logistics system in place is a major challenge even for the multinational corporations in the developed nations.

It is an even greater challenge to discuss and appreciate reverse logistics meaningfully and implement it in developed nations at this stage. However, worldwide, there is a growing pressure from society for proper life-cycle assessment and disposal of all components of

the various products. Costs of disposal and reverse logistics have to be increasingly seen as part of the intrinsic product costs by all organisations. Today, corporations need to view reverse logistics as a core business process. Both Government and Industry need to be pro-active and view the effective functioning of both the forward supply chain as well as the reverse chain as a new business reality. We have a lot of catching up to do.