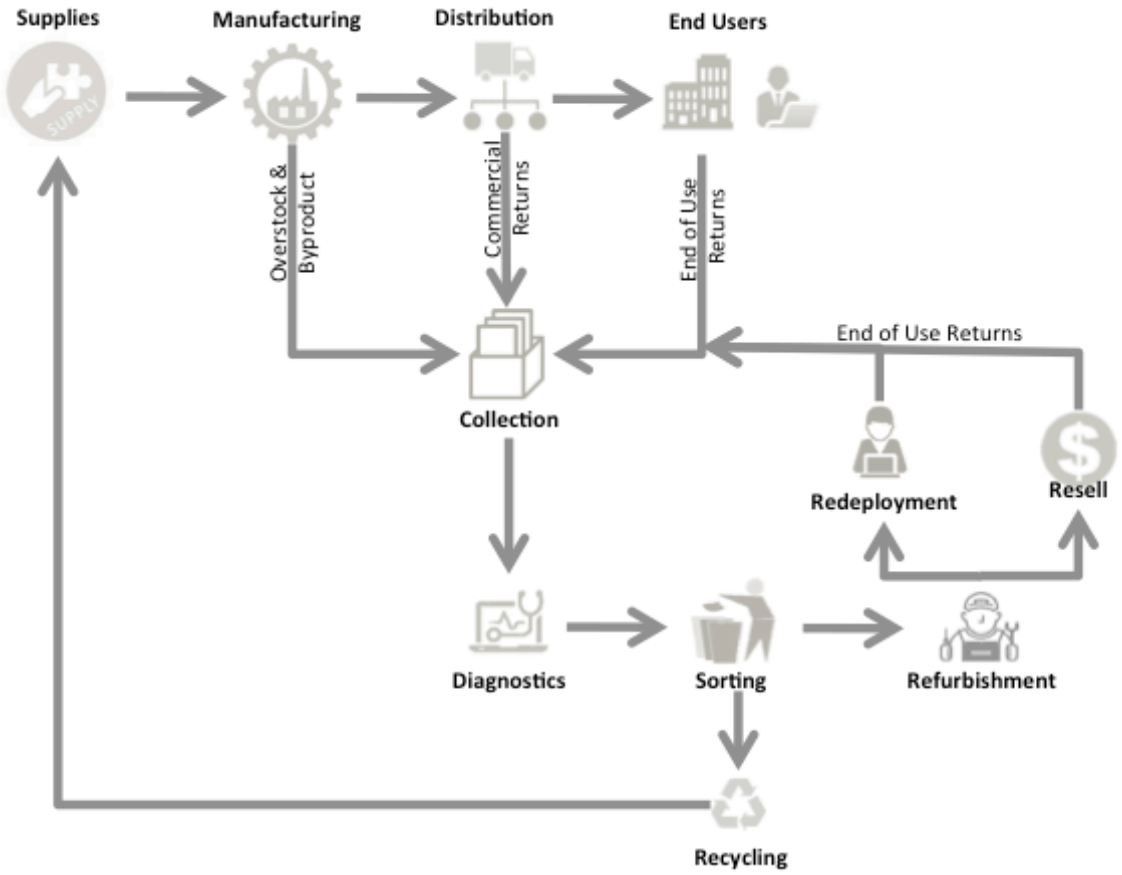
Creating sustainable value in reverse supply chain

What is reverse supply chain?

Reverse supply chain includes moving returned merchandize due to defect, damage, overstock, exchange program, decommissioning of obsolete equipment and recycling programs from the consumption point to the origination point to dispose or to recapture value. Key activities in reverse supply chain includes gatekeeping to decide product validity for reverse supply chain; collection to deal with uncertainty of location, quantity and timing; inspection and sorting to decide downstream action; reconditioning to extend asset life for reuse or resale; disposition based on product quality and condition; and redistribution of products for optimal recovery through sale.

Fig: Reverse Supply Chain



Traditionally, companies have been spending more time and resources towards forward supply chain while ignoring their reverse supply chain. However with growing e-commerce and lenient return policies, increasing competition and tightening waste management regulations, companies are increasingly recognizing the value that can be recaptured through an efficient reverse supply chain while increasing customer satisfaction and

contributing to green environment. However compared to forward supply chain reverse supply chain has to deal with ambiguity related to location, timing, quantity, condition and pricing. Most existing forward supply chains are not designed to handle ambiguity related to reverse supply chain resulting in inefficiencies, value erosion and waste generation.

What are the current challenges in reverse supply chain?

Lack of Management Focus

Most companies view reverse supply chain as cost of doing business and an unavoidable problem of back end process. This results in lack of commitment and focus from senior management. Companies accumulate reverse inventory in the back of warehouse or stores with suboptimal packaging resulting in value erosion from damage and pilferage.

"Reverse inventory supply chain has ambiguities at every stage and it can be overcome only through smart use of technology. Value erosion because of inefficient reverse inventory management can not be overlooked as cost of doing business but should be attended to with urgency to uncover hidden profits for the companies."
Mr. Sanjeev Jain, Group CFO GATI

Lack of Processes and Systems

Most companies do not understand and appreciate the benefits and profits an efficient reverse supply chain can bring and hence do not have clearly defined policies and processes to achieve desired outcomes. Additionally, companies either do not have systems to handle reverse supply chain or have disconnected applications with limited functionalities resulting in inherent inefficiencies and potential customer dissatisfaction.

Slow Decision Making

For the lack of information on product quality, configuration and other variables companies are not able to take timely decisions on reverse inventory disposition resulting in lose in inventory value. Decline in value depends on type product however for consumer electronics products like Mobile, value lose can be in excess of 1% per week. This can be worse for products nearing the end of its life cycle.

No infrastructure and skills for reconditioning

Companies can optimize value from reverse inventory by remanufacturing or reconditioning for resale, however the uncertainty in the timing and quality of reverse inventory makes remanufacturing/reconditioning process unpredictable and complex compared to traditional manufacturing. In the absence of reconditioning or remanufacturing assets that could have been reused end up as waste adding to environmental woes.

Lack of Pricing Guidance and Limited Buyers

Unlike new assets, assessing the value of reverse inventory with varied quality is not easy. In the absence of pricing guidance, most companies work with limited buyers and get 3 quotes over email resulting in suboptimal recovery.

Lack of transparency

Most companies use email based quotes for selling reverse inventory, which is leakage prone making it difficult to ensure the fairness of the process and to eliminate resulting losses to companies. Also companies have no visibility of reverse inventory post sales to brokers resulting in potential regulatory and brand image risks.

How can we scale over these challenges to create sustainable value?

"Measurement is the first step that leads to control and eventually to improvement. If you can't measure something, you can't understand it. If you can't understand it, you can't control it. If you can't control it, you can't improve it." - **H. James Harrington**

Processes and Systems Aligned to Outcome

A seamless reverse supply chain system provides real time granular data streamlining the process and helps improve customer satisfaction. With improved understanding of reverse supply chain clients can define desired outcomes and align policies and processes to achieve the same. This will result in reductions in unused inventory, improved cash flow and lesser efforts.

Speedy Decision Making

Discretely defined return diagnostic provides accurate information on quality and configuration along with better understanding of return reasons i.e. were the returns because of defects, change of mind, damage or incorrect labeling. Having accurate data timely help companies in taking corrective actions and automate downstream actions mitigating the waste and cost generated from inventory aging and return leakages.

Efficient Reconditioning and Remanufacturing

Companies can enhance the value captured from returned products by reconditioning or remanufacturing the products for reuse or resale. An integrated gatekeeping, sorting and diagnostics can help mitigate uncertainties related to timing and quality of returned products and hence more predictable refurbishment or remanufacturing process with lesser waste and cost. This will also ensure that these assets are put back to use instead of being put as waste in landfills and hence contributing to a more sustainable environment.

"Corporates should no longer pile-up the decommissioned assets in warehouses or treat them as e-waste by default. There is infinite possibility to generate Social, Environmental and Economical value by putting these assets in the hands of users instead of landfills."

Anthony Thomas, CIO,
GE Global Growth Organization

Real time Pricing Guidance and Access to large Pool of Buyers

Companies should come out of the practice of 3 quotes on email and instead have access to a large set of resellers or end users to optimize recovery. Specialized reverse supply chain systems can not only provide them pricing guidance but also connect them to large pool of buyers via technology platform ensuring a fair and controlled mode to

recover optimally.

End-to-End Tracking

Government is increasingly tightening the laws around product recycling or disposal especially the ones that are hazardous to environment. A system driven reverse supply chain can provide tracking capability right from origination to disposal safeguarding companies against regulatory and reputational risk.

Enhanced Customer Satisfaction

With fast changing technology, fashion and customer needs, companies are increasingly under pressure to introduce new products to maintain the "Freshness" of distribution channel. A reverse supply chain that is predictable, efficient and fast will ensure that companies are able to clear the obsolete or used items from channel more frequently and smoothly enhancing customer satisfaction.

In Summary, technology can dramatically reduce inspection; grading, refurbishment and disposition cost and enable companies to extract hidden profit from unused assets optimally and in environment friendly manner while being in control of the disposition process. Forward thinking pays big dividends even with Reverse Supply Chain.

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