

Reverse logistics – a holistic business and process challenge

With the increasing focus on reverse logistics, Julian Mosquera, Director at LCP Consulting discusses the holistic and business process challenges for companies and provides five key steps to achieving greater value from reverse logistics operations...

Whilst many businesses, whether retail or manufacturing operate some form of reverse logistics process, it is arguably one of the weakest areas of operational capability and certainly one that until recently has received limited management attention.

With the advent of legislation concerning the disposal of product and perhaps the realisation that this is a costly business process that represents real loss of value, the spotlight is firmly focused on driving greater efficiency in this area.

If we take a holistic interpretation of what businesses should achieve with their reverse logistics process, we may conclude that it covers:

- All supply-chain actions as they occur in reverse. This encompasses the process of retrieving goods from their consumer point of use - for the purpose of capturing value and / or proper disposal.
- The processing of returned merchandise due to damage, seasonal inventory, restock, salvage, recalls, and excess inventory; as well as packaging and shipping materials from the end-user or the reseller.
- Once recovered, the product may be sold as a reconditioned or remanufactured product, or disposed of due to poor condition, legal requirement, environmental restrictions or material reclamation.

Whilst there are clear expectations of what should be achieved through such a process, reverse logistics presents businesses with three common and fundamental challenges:

1. Fulfilment centres (supplying the retail footprint or consumers directly) are geared for outbound logistics. They are generally not capable of addressing efficiently reverse material flows, neither in terms of the capacity to deal with a high variety of product that more often than not arrives in a random fashion, nor the challenging physical and handling characteristics of such loads
2. The systems and controls simply don't exist to efficiently manage such a process
3. The knowledge to determine the most appropriate, and value enhancing form of disposal doesn't generally reside within the parent organisation.

Indeed the very nature of reverse logistics requires a different organisational approach and set of capabilities, and in some cases technologies. It is no surprise therefore that this is one area where just a few Logistics Service Providers (LSPs) have established a strong niche, and in some instances can demonstrate real value add.

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The five R's

At LCP we draw on our five R's of reverse logistics to emphasise the potential revenue streams that may be exploited through coordinated action. These are, in order of value creation:

1. **Revenue** ~ proactively direct product to alternative retail channels, where they are sold into less demanding geographical marketplaces, to secure near full value; dependent on product, volume, intrinsic value and location
2. **Refurbish** ~ bring returned product to a graded level to resell as second hand goods or use to support service applications
3. **Remanufacture** ~ rather than replace product, repair or upgrade it, repackage and sell again as new
4. **Reuse** ~ utilise components for alternative purposes, products or as parts for spares support; for example, microchips that were once at the heart of mobile phones have been resold to toy producers for insertion in electronic toys
5. **Reclaim** ~ products disassembled to salvage valuable material content, including precious metals, and to realise their intrinsic material value; sort and break down product into base materials for smelting.

Realising business value

At LCP, we believe that simply managing the collection and disposal is not enough. A more proactive approach is required for businesses to realise a margin enhancing activity, rather than being resigned to managing a cost centre.

Companies cannot continue to turn a blind eye to the costs of their own inefficiencies. Smart companies will seize this opportunity to review their entire reverse logistics processes; and there are considerable gains to be had.

This approach and thinking is not new. Cosmetics manufacturer Estee Lauder used to dump \$60 million worth of product into landfill sites every year, representing around one third of all of the goods returned by its retailers. In the late '90's the company invested \$1.3 million in new IT systems and business processes to manage returns more efficiently. The investment cost was more than recouped from operational savings made within the first year, which supported a three fold increase in returned items that could be redistributed for resale.

In another example, an electronics manufacturer treated returns as nothing more than an annoyance, with no strategic thought given to the way in which they were managed. This despite the fact that around 3 per cent of all goods shipped from their European Distribution Centre were returned, representing around £9 million in value. The majority of these goods were scrapped with no attempt made at recovery. When reviewed, it was discovered that the most common reason for returns was damage to packaging during transit. Fifty per cent of the returned goods needed nothing more than a new outer box in order to be resold. However, due to the lack of a coordinated approach to the sourcing of secondary items, it had been actually more expensive to source small quantities of packaging material than simply to scrap the product!

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In many cases the limitations in reverse logistics have been a lack of scale. Here again LSPs bring an advantage in being able to establish (multi-user) reverse logistics operations, which ensure sufficient volumes are collected, consolidated and processed in a cost efficient manner.

The largest costs are generally in logistics (collection and return of product to reverse hubs, as well as onward disposal actions) rather than in the reverse processing centre itself. However, a 'business model' that integrates and manages the total cost picture is central to understanding and determining the extent of refurbishment activities that should be undertaken (investing in rendering returned merchandise as saleable).

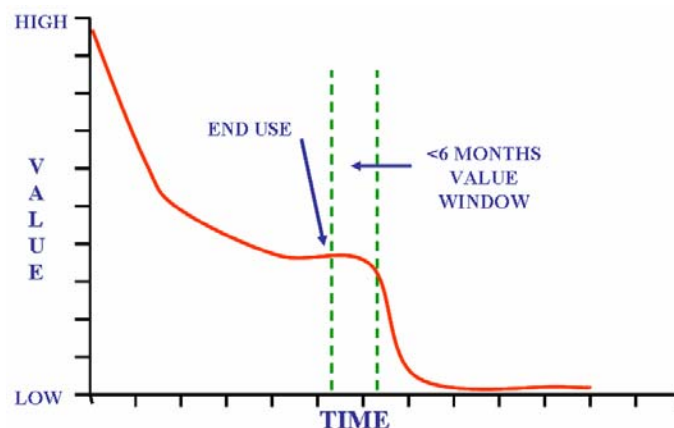
LCP's experience of formulating and implementing such solutions has demonstrated that the key to minimising operational costs and maximising potential revenue is through the careful analysis and specification of product categories, with reference to their discrete market and product features, that make returning product to a saleable state more or less easy.

We believe that the most successful programmes, will be developed by retailers / distributors and manufacturers working together to develop mutually beneficial schemes, in which they share responsibility for managing the returns process and take a share in recaptured revenues.

The decision on what to do with products once they've been returned is only part of the problem. For many organisations the toughest challenge is gathering up returned product in sufficiently high volumes, maintaining their essential product quality to offer the opportunity to maximise value at the point of disposal, and most critically doing so in a timely manner that secures the value window.

In Figure 1, the window of opportunity to capitalise on the intrinsic value of a product, or the residual value of its constituent parts, is typically quite short. Once a product is to be removed from market (perhaps because it missed its sales window, has been technologically superseded or is beyond its economic life), the period available to exploit and maximise the latent value is typically short (less than 6 months). Thereafter the residual value plummets and often reclamation becomes the only economic option.

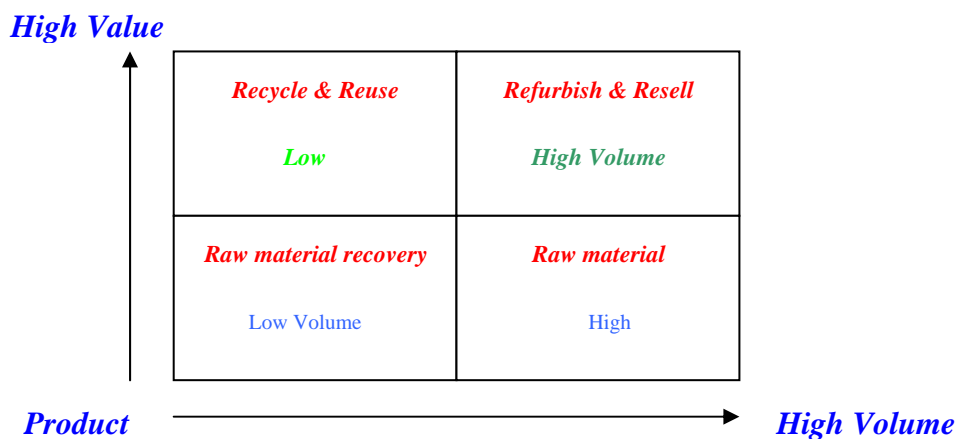
FIGURE 1 PRODUCT VALUE CURVE



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At the same time, businesses should assess their products to determine which disposal method would return the best revenue. Product may be scrapped not just because it has worn out, but because its resale value will not cover the repair and warranty costs; it may be technologically obsolete or has lost its place in the market. The product disposal matrix (Figure 2) sets out a basic decision making framework. However, the devil is in the detail of populating this and a structured and detailed approach is required.

FIGURE 2 PRODUCT DISPOSAL MATRIX



So what is missing?

LCP has worked with LSP's and retailers to create awareness and systems of control that secure the latent product value that all too quickly can be lost.

Few retailers pay sufficient attention to this area, many are relieved that LSPs will take the issue away, and have not really organised themselves internally to address the issue. Indeed retailers are still unwilling to invest sufficiently in this discipline and as a result 'buy out' much of the liability with manufacturers.

The full potential of returns is being missed as retailers (especially) dilute the impact through uncoordinated efforts; buyers, commercial and supply chain managers independently release volumes through multiple reverse channels (e.g. brokers, agents, jobbing, e-auction). What is needed is a single managed, predictable and accountable effort, which identifies the most appropriate and cost efficient route to maximise any residual return from such product.

Given the above, it is no surprise that much value is still squandered today. What it needs is a business policy framework that governs how retailers will work with all parties (vendors and LSPs) from the outset, so that the process is proactive and well understood, rather than reactive, i.e. create collaborative programmes that provide real visibility from store to the conclusion of the process.

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Do such solutions exist out there?

Perhaps the exemplar in the UK of a dedicated and specialist reverse logistics business is iForce, who offer comparable services and sophistication of systems and processes, to those of Genco in North America (perhaps the 'gold standard' of Reverse Logistics globally).

With its ReSCU (Reverse Stock Control Utility) system, it is the only LSP that boasts the ability to link retail returns at the Customer Service till in store, to a raft of decision making that comprehensively addresses reverse channel management. It is this that offers a strategic and financial advantage for the retailer, manufacturer and LSP alike.

For Tesco, iForce captures at store the product return and, through a series of prompts, service based information for the customer return. This daily data feed is automatically converted into an operational assessment for previewing load planning by product category of returns that will hit the DC for processing. The advanced warning and profiling enables intelligent resource deployment, which translates into much higher than standard levels of recovery and sales income.

iForce have invested heavily in establishing a decision matrix for recovery actions that governs, by category, the 'effort' invested to recover a re-saleable item, based on the probability of securing maximum margin. These actions range from simple visual inspection, through repack, rework and even basic repair. The 'clever' is the decision criteria to determine the extent of intervention, before it becomes uneconomic.

This solution affords Tesco a far superior visibility and understanding of the volume of returns it is generating, and ultimately the business control over how these should be managed, to maximise margin.

Once the reverse route is determined, an item typically experiences only 'one touch' as it flows back through the reverse loop to the point of evaluation. This process efficiency explains why such a high level of recovery is achieved. For most Reverse Logistics operations, a product is touched many times, degraded in the process, to a degree where the only viable route is to scrap or job-off at very low margin.

The last building block is the Reverse Sales channel. Product from any reverse channel can be sold without the use of intermediaries, where up to 25 per cent of margin is typically lost. Essentially, the LSP simply places refurbished product back into the e-fulfilment cycle and the product goes full circle! The retailer is guaranteed to maximise the potential margin from sale, without cannibalising their prime sale channel / route to market.

At the extreme end of this process, reclaim excellence is well demonstrated by the strategic investment Wincanton has made in the establishment of two state of the art recycling centres. Primarily focused on WEEE legislation, these centres offer a comprehensive and safe disposal (Reclaim) mechanism for any durable product; the ultimate fate of all products, regardless of how long its life has been extended.

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Five key steps to address the Reverse Logistics challenge

Through working closely with retailers, manufacturers and LSP's across many sectors, LCP has improved efficiencies significantly by addressing the following five steps:

1. **Assess the reverse logistics options** for every item on the product list in terms of potential revenue generation - the five R's. Select the appropriate course of action, based on a thorough understanding of the cost to implement and the potential cost recovery or revenue gain.
2. **Map the complexity of the entire returns operation**, its geography, product densities and the other parties involved. Where necessary, build alliances and collaborate to secure density of operation to drive the required economics. This becomes even more critical when addressing the WEEE Directive, where it is the manufacturer's responsibility to incentivise customers to return goods and to make it easy for them to do so.
3. **Design and build operational systems and processes** to automatically manage the decision making process; thereby speeding the reverse flow and simultaneously making it more deterministic. Make sure that these complement the needs of the rest of the business and create synergies wherever possible.
4. **Cost the whole programme in detail.** Well designed and sensibly aligned to your wider business activities, it can generate revenue, but at the very least it should be cost neutral.
5. **Implement the programme with strategic partners** as appropriate, contracting services and establishing the physical infrastructure and IT requirements to support it. Once operational, the system will need constant management and adjustment as the shape of the business and trading patterns change. As much care needs to be dedicated to maintaining the "reverse supply chain" as to the more traditional supply chain through which finished goods are distributed to market.

About LCP Consulting

LCP Consulting is a leading specialist in customer-driven supply chain management. With over 20 years' experience in the field, we identify where supply chains make major contributions to how businesses operate profitably and compete effectively. We support businesses review, re-design and implement changes to their end-to-end operations. Our fact-based diagnostics pin point exactly where & how to cut costs, enhance operational efficiency and invest for the future.

LCP Consulting is a member of the Green Logistics Consultants Group, which is an international collaborative network of supply chain consultants who focus on improving the environmental performance of supply chains.

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