

E-Waste Management in India





E-commerce: Enabling the next revolution in e-waste management

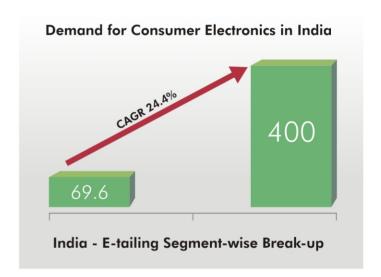
India's consumer electronics and ecommerce markets have seen remarkable growth over the last decade. The country's consumer electronics market is expected to increase from USD 69.6 billion in 2012 to USD 400 billion by 20201 making it one of the fastest-growing markets in the world. Not surprisingly, India's e-commerce industry too is growing at a frenetic pace and is expected to balloon to USD 43 billion over the next five years².

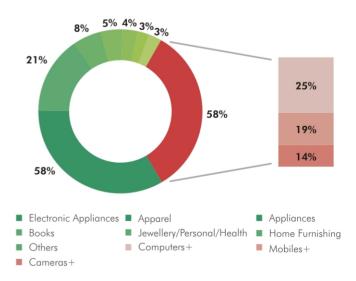
Industry reports confirm that electronic goods are the highest-selling category across e-tailing businesses³. Consumer electronics, mobiles and appliances account for~10% of the overall retail category, around 2 times that sold by brick & mortar retailers, and nearly two-thirds of online retail sales⁴. Given the convergence, the next revolution in the ecommerce segment will obviously be in e-waste management. In this paper we examine the opportunities and challenges in this sector.

E-tailing Refurbished, Recycled and **Rebranded Products**

With India's potential to become one of the biggest consumer electronic markets globally, the prospect of the country becoming the world's largest reverse

logistics chain is also growing. This prospect can be transformed into a solution to the rapidly compounding challenge of scientific e-waste





http://www.ibef.org/download/Consumer-Durables-March-2014.pdf

²http://www.quantspartner.com/Anchor%20Report-%20India%20internet%20-%20Raring%20to%20go.pdf

³http://www.quantspartner.com/Anchor%20Report-%20India%20internet%20-%20Raring%20to%20go.pdf

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management. Further, this can act as a stimulant to India's participation in sustainable practices leveraging this opportunity to refurbish, recycle and reuse discarded or surplus electronic gadgets.

It is estimated that about 5-6% of consumer durables, mobiles and IT industry production is surplus. This includes surplus stock, factory seconds and carton-damaged material⁵. Such stock is a refurbished reserve that finds a ready market in the burgeoning aspirational yet price-conscious Indian middle class segment, which is more often than not non-urban. The otherwise rejected material presents a huge opportunity worth USD 1.5 billion⁶. Further, not all discarded gadgets are end-of-life —a lot of them can be refurbished and reused. Through advanced recycling processes, e-waste managers can play an important role in enhancing our planet's sustainability by reducing the quantum of natural resources extracted to manufacture new products.

However, as against the global average of 20% of e-waste being recycled currently⁷, a meagre 5% of India's e-waste is being recycled⁸. India already generates approximately 2.7 million tonnes of e-waste annually and is expected to grow at 30%. Though 95% of the e-waste is commercially recyclable, only 5% is being put to use through the recycling process.

Given the numbers, in the next phase of the industry growth we foresee Indian e-waste

management companies optimally leveraging the refurbishment, recycling and rebranding opportunity to their advantage. Also, to further profit from this opportunity, they will also leverage the power of ecommerce which offers the ultimate penetration opportunity owing to the country's rapidly growing net-savvy customer base. Tier III and Tier IV cities, which often present strong pockets of consumers for refurbished and recycled electronic goods, can effectively be reached only through the power of ecommerce.

Mining a New Business Opportunity

The e-commerce industry derives its ingenuity, productivity and competency from its logistics efficiencies. The same supply chain management mandate that delivers goods from warehouses to consumers can be effectively used to transport discarded consumer durables to e-waste management facilities. Globally, supply chain leaders such as DHL, FedEx and UPS have demonstrated innovative ways of tackling the challenge of e-waste management⁹. Leveraging their strength in customer servicing and logistics (network + technology) and acquiring additional proficiency in e-waste management, these organizations have successfully mined a new business opportunity. For instance, between 2000 and 2011, UPS recycled almost 13.6 million kg of e-waste.

The revenue generated from sales of

⁵http://www.franchiseindia.com/articles/Opportunity/Tier-II-III/Be-a-leader-in-factory-seconds-biz-603/#.VCqQzPmSzT8

⁶http://www.franchiseindia.com/articles/Opportunity/Tier-II-III/Be-a-leader-in-factory-seconds-biz-603/#.VCaQzPmSzT8

⁷http://www.unep.org/ietc/Portals/136/Other%20documents/PolicyBriefs/13052013 E-Waste%20Policy%20brief.pdf

⁸http://www.assocham.org/prels/shownews-archive.php?id=4476



refurbished electronics and unwanted e-waste more than pays for the costs associated with running this extensive programme. Reduced transportation and fuel costs have also benefitted UPS and its customers by increasing the value of its streamlined e-waste recycling network¹⁰. While the e-commerce industry witnesses accelerated growth, organizations are increasingly opting to own the entire supply chain inhouse, mitigating the risk of depending on third-party providers.

By strategically aligning with e-commerce entities which have dedicated, in-house supply chain divisions, the e-waste sector can benefit on two counts. Firstly, it can create a source of income for organizations. Secondly, such strategic partnerships can enable them to ward off competition from industry outsiders.

Driving Customer Service Efficiency

E-commerce can play an important role in B2B marketing strategies of e-waste management companies. Take for instance the case of Waste Management Inc., a Texas-based integrated environment solutions provider. In 2012, the company launched an e-commerce site where residential and business customers could rent dumpsters and get price quotes for trash and recycling services. Through custom mobile devices carried aboard its 20,000 trucks, the company records variables such as load weights, routes and

time spent at customer stops and landfills. By combining that data with a customer's service history, the company suggests more economical products or redirects trucks to more efficient routes. The data is also fed back to business customers so that they can change their trashing habits to recycle more or produce less waste¹¹.

Waste Management Inc.'s investments on the e-commerce effort are expected to produce returns of USD200 million in sales in the next few years¹². According to Punit Bhasin, Chief Information Officer of Waste Management Inc., "It's a transformation in how we think about the company – from trash hauler to logistics and information provider". The same holds true for the industry –its business growth is bound to undergo a phenomenal transformation once its primary stakeholders change their perception of how best to manage e-waste.

Conclusion

E-commerce is a critical opportunity that will drive the next phase of growth across all consumer segments globally as well as in India. Industry stakeholders need to leverage the growth of e-commerce for driving effective and efficient e-waste management. E-waste management companies can usher in their next phase of growth by enabling wider reach and driving a business transformation through e-commerce.

 $^{{\}it °http://www.pressroom.ups.com/pressroom/staticfiles/pdf/case_studies/e-waste_CaseStudy_PRINT.pdf}$

¹⁰http://www.pressroom.ups.com/pressroom/staticfiles/pdf/case_studies/e-waste_CaseStudy_PRINT.pdf

¹¹ http://www.cio.com/article/2401333/e-commerce/how-waste-management-s-cio-turned-trash-into-treasure.html?nsdr=true



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